

you:digital

FACTBOOK OF NEARSHORE SOFTWARE DEVELOPMENT IN CENTRAL AND EASTERN EUROPE

10/2023

CONTENT

1. Executive Summary	3
2. Outsourcing Models	4
2.1. By Location	4
2.1.1. Nearshoring	4
2.1.1.1. Advantages of Nearshoring	5
2.1.1.2. Disadvantages of Nearshoring	5
2.1.2. Offshoring	6
2.1.2.1. Advantages of Offshoring	7
2.1.2.2. Disadvantages of Offshoring	7
2.1.3. Essential Differences and Similarities between Nearshoring and Offshoring	7
2.2. By Team Setup	8
2.2.1. A dedicated team	8
2.2.1.1. Advantages of Dedicated Teams	8
2.2.1.2. Disadvantages of Dedicated Teams	8
2.2.2. Team augmentation	8
2.2.2.1. Advantages of Team Augmentation	9
2.2.2.2. Disadvantages of Team Augmentation	9
2.2.3. Hybrid teams	9
3. Developers Market Supply Overview	10
3.1. Full Stack and Salesforce resources in CEE: numbers by country	10
3.2. Full Stack and Salesforce roles mind map and definitions	22
3.2.1. Salesforce Roles	22
Business	22
Technology	25
3.2.2. Full Stack roles	27
Front End	28
Back End	28
Databases	29
Mobile Application Development	30
3.3. List of top universities educating developers	30
3.5. Business and cultural environment by country	35
3.6. Software Developer Labour Cost By Country	69
3.7. IT Companies in Numbers by Country	70
4. Developers Market Demand Overview	71
4.1. Full Stack and Salesforce open jobs in numbers by country	71
5. How to find a good developer	72
5.1. Software House	73
5.1.1. Features of Software Houses	73
5.1.2. Challenges of the Software House Cooperation Model	73
5.1.3. Advantages of Software House Cooperation Model	74
5.1.4. Disadvantages of Software House	74
5.1.5. What is the Work Nature of Developers	74
5.1.6. How to get the Developer you want from Software House	75
5.2. Freelancer	76
5.2.1. Features of the Freelancer Cooperation Model	76
5.2.2. Advantages of the Freelancer Model	76
5.2.3. Disadvantages of the Freelancer Cooperation Model	77
5.3. Employee	77
5.3.1. Advantages of the Employee Model	77
5.3.2. Disadvantages of the Employee Model	78
5.4. Tips on How to Best Employ a Good Developer	78
5.5. Permanent employment versus self-employment by country	79
5.6. Candidates asking salaries and negotiation strategy tips	80
5.7. How to read candidate's CV - tips and tricks	82
5.8. Assessment Criteria for Software Developers	85
5.9. Template Interview Questions and Conversation Flow	86
5.10. Software developer personas and their professional life cycles	88

1

EXECUTIVE SUMMARY

Outsourcing is a contemporary practice that is receiving prompt attention in recent times. The IT outsourcing market globally is currently at \$557 billion, which is a cumulative of more than 77% of the entire outsourcing market. Outsourcing is a simple business process of hiring the services of an independent contractor for a particular duration or project in the company. As expected, outsourcing is a solution that has arisen primarily due to changes in the business climate. For instance, nearly 50% of small companies have testified that hiring qualified and effective employees is one of their biggest challenges. Outsourcing eliminates this problem by providing these businesses with efficient and proven employees at an effective rate for a time frame. Experts have argued that outsourcing also allows innovative and creative collaboration between persons of different backgrounds and stature to achieve company goals and tasks.

Many companies are spending huge chunks of their budgets on IT outsourcing, and the market will grow exponentially in the next five years. One of the reasons for this is software application development. Software application development is one of the most frequently outsourced IT services accounting for a sizable part of the market, with over 60% of companies outsourcing in part or whole.

Other sectors, such as health, finance, and retail, rely on outsourced IT talents for IT-related functions. This decision affords the sector's business transformation, improved quality services, and cost reduction. As a result of its unique nature, outsourcing can come in different forms and manners – depending on the requirements and needs of the company – each with its own end goal. This factbook undertakes a deep analysis of software development outsourcing. The sections delve into outsourcing models while expanding developers' market supply. It also expands on the education of software developers per country, as well as the labour costs and assessment criteria. At the end of this paper, the target audience will have a comprehensive overview of software development outsourcing and the best offering for software outsourcing labour.



2 OUTSOURCING MODELS

2.1. BY LOCATION

Outsourcing is in many cases by location. Central and Eastern Europe has been deemed to house the main IT outsourcing markets in the world, driven by an affordable and vast talent pool. This includes countries like Poland, Romania, Czech Republic and Bulgaria distinct for their excellent outsourcing opportunities, pool of highly skilled IT professionals and attractive nearshore prices. Between 2016 and 2020 the European IT outsourcing market grew by 14% from €9.1 billion to about €16 billion.

Nearshoring, offshoring, and even onshoring are all ways to outsource a business to get maximum impact and expertise and also arrive at project goals in time. Experts have predicted an increase in outsourcing by location due to growing rates of remote work culture and a reduction in IT talents. Also, companies globally are encouraging outsourcing by location because they believe it provides the best hands in the field without all the accompanying costs.

2.1.1. NEARSHORING

Nearshoring is a widespread company practice. It is the transfer of operations to another country to reduce costs of business. Nearshoring is coming into frequent use due to the increase in wages and business costs. Many companies in European countries particularly prefer nearshoring. In 2019, 67% of Dutch outsourcing services were nearshored. Here are a few things to note about nearshoring.

- Nearshoring is a unique solution to the problem of expensive employees' wages.
- Nearshoring also enables a company to operate in a cost-effective way.
- With nearshoring, contractors from different companies can work together to create synergy in projects that require expertise.
- A company using nearshoring can also exercise quality control and increase its overall quality of labour.
- Such a company can put a team together seamlessly and determine its effectiveness.

Notably, nearshoring mainly involves hiring from closer countries or geographical regions. That way, talents work within the time zone of the hiring company and are more attuned to the nature of the work.

However, searching for and finding a good company with quality nearshoring services can take time and effort in many instances. It is essential to have a reliable and problem-free partner to successfully achieve the project's goals.

2.1.1.1 ADVANTAGES OF NEARSHORING

In many business climates, companies are to opt for nearshoring for several reasons.

- Nearshoring's proximity provides an opportunity for better supervision and management.
- Nearshoring allows for a cost-effective project – the goal of outsourcing.
- Proximity ensures that the tasks are clear and the project is done correctly.
- Also, the time zones and languages are often similar and that encourages effective communication.
- Nearshoring is also ideal for avoiding compliance issues with tax policies and data protection regulations.

2.1.1.2. DISADVANTAGES OF NEARSHORING

Generally, outsourcing by location is a common practice because of its inherent advantages. Some of the 'disadvantages' stated below are not precisely disadvantages in themselves but may seem so when contrasted with the offshoring counterpart.

- Nearshoring may be more expensive than offshoring due to proximity to the country of origin and the similarities in practice.
- Finding a perfect partner for the company's business model and values may also be challenging.
- Socio-cultural differences may still exist even if the country of origin and the receiving country are proximate.

2.1.2. OFFSHORING

Offshoring is a practice that is very similar to nearshoring. Offshoring involves contracting the project to a different country far from the country of origin. Offshoring and nearshoring may differ in that while one is closer to the country of origin, the other is farther. It is common practice for companies to create an offshoring arrangement by establishing an in-house centre in the offshore location. Below are some fun characteristics about offshoring.

- With offshoring, there is a widened choice of labour and cheaper work rates.
- Offshoring becomes essential for a business when such wants to reduce costs and free up internal resources.
- This increased work rates and differences in time zones allow more time to work on the project goals.
- The hiring company can also ensure that more work is getting done quickly with little funds expended.
- Notably, offshoring comes with increased management and monitoring practices.
- Companies opt for offshoring over nearshoring when they are interested in the geological perks of the recipient country.

Regardless, offshoring has certain advantages and disadvantages in the sections below.

2.1.2.1. ADVANTAGES OF OFFSHORING



Offshoring can provide a dream team to build the project with minimal cost.



It also allows a company the chance to find talent and interact with high level expertise.



With offshoring it is easier to manage talents as employees are more attuned to obeying instructions.

2.1.2.2. DISADVANTAGES OF OFFSHORING

Offshoring gives the semblance of a dream outsourcing by location packed in one single step. However, it has limitations, and sometimes, this may be a disadvantage.

- Many companies would rather opt for talents closer to the country of origin than far from it.
- Offshoring may breed miscommunication between talents and the company due to differences in time zones and languages.
- The company may have to spend more resources on management and monitoring to get error free results.
- Sometimes, the expertise of the talents may be uncertain and dependent on social and economic realities in the recipient country.

2.1.3. ESSENTIAL DIFFERENCES AND SIMILARITIES BETWEEN NEARSHORING AND OFFSHORING

There are some specific differences between nearshoring and offshoring, although both techniques are outsourcing components.

- Both nearshoring and offshoring are characteristic of outsourcing as they involve selecting talents outside a company's country of origin.
- They both have different geographic nature with nearshoring being more proximate than offshoring.
- In nearshoring, similarities in time zones and socio-cultural realities help to ensure effective management and cultural alignment.
- The goal of both techniques is to result in business and manufacturing costs. management and manufacturing costs.
- Interestingly, each technique is perfect for getting the best technical skills and maximising expertise on a project.

In all, selecting any of the two outsourcing techniques depends on your specific project goals, location, availability of skilled workers, and budget. Regardless, both are effective outsourcing techniques. Products and companies such as WhatsApp, GitHub, Slack, AppSumo, and Mindspark have successfully utilised nearshoring or offshoring for projects and partnerships.

2.2. BY TEAM SETUP

There are some strategies to consider even after selecting the preferred kind of outsourcing. This strategy will depend on the company's need for expertise and the type of talents. A company can opt for a dedicated team or a specially augmented team with temporary staffing. In many instances, outsourcing for a team is done in two different ways. However, a company must settle for one which aligns with its plans, goals, and overall expectations from the project. The sections below explain the forms of outsourcing.

2.2.1. A DEDICATED TEAM

A dedicated team involves a team setup where independent experts in software development are employed. These experts must work on varying aspects of the projects, provided it is within their expertise. A dedicated team commits to one task at a time, and they are highly effective. This approach results in faster and more cost-effective actions and solutions. Below are some advantages and disadvantages of the dedicated teams IT outsourcing method.

2.2.1.1. ADVANTAGES OF DEDICATED TEAMS

- Dedicated teams take on the technical workloads requiring high expertise and low internal strain.
- Dedicated teams take less time to build and begin practical work upon setup.
- This method is comprehensive as the company has the freedom to select the best software developers available.

2.2.1.2. DISADVANTAGES OF DEDICATED TEAMS

- Dedicated teams may lead to friction on the team where there is no cohesive relationship between team members.
- In other instances, there may be cultural and practical differences and socio-cultural friction.

2.1.2. TEAM AUGMENTATION

Team augmentation is developed to solve the problem of expertise for technical or large-scale projects. It is an outsourcing strategy where a company hires external staff to embark on projects where it cannot afford full employment. IT team augmentation can also mean adding to a company's existing talent with more members. This method helps with providing expertise in the team without additional recruitment and training. It also aids flexibility and quality know-how within the team. Below are some of the benefits of team augmentation.

2.2.2.2. DISADVANTAGES OF TEAM AUGMENTATION

With team augmentation companies can access top-notch talent with little cost and temporary retention. Nevertheless, there are no perfect solutions, and some of the disadvantages of team augmentation show that. Team augmentation cuts through the bureaucracy of hiring and recruiting.

- Team augmentation may be restricted if the team's expertise falls short of what the project requires.
- It may also be redundant if skill gaps exist in one part of the company's project.
- A company may have to carry out periodic but frequent employee orientation and background checks.

2.1.3. HYBRID TEAMS

Hybrid teams are generally a merger between the types of outsourcing – nearshoring and offshoring. In this way, the company manages the project locally but contracts the technical parts of the project to offshore developers. This solution is best for businesses looking to work with known hands but also get the best costs and expertise.

Hybrid teams usually ensure the best quality of hands. It also eradicates communication barriers and time zones. What's more, there is the opportunity to contract long-term maintenance at the end of the projects. Finally, it also provides flexibility in team composition and augmentation to favour the company's budget and needs.

3

DEVELOPERS MARKET SUPPLY OVERVIEW



3.1. FULL STACK AND SALESFORCE RESOURCES IN CEE: NUMBERS BY COUNTRY

3.1.1. ALBANIA

In the early 1990s, Albania ended decades of isolated communist rule and began to establish a multiparty democracy. A large informal economy and a weak energy and transportation infrastructure remain developmental obstacles.

Total population: 3,101,621
Total GDP: \$40.822 billion
GDP per capita: \$14,500
EU Membership: No
Top industries: food, footwear, apparel and clothing; lumber, oil, cement, chemicals, mining, basic metals, hydropower

Title	Quantity
Salesforce Developer	68
Salesforce Administrator	7
Salesforce Consultant	14
Java Developer	240
C# Developer	26
React Developer	98
PHP Developer	42

3.1.2. BELARUS

After seven decades as a constituent republic of the USSR, Belarus attained its independence in 1991. Growing public debt, strong currency pressures have led to higher inflation; recent price controls on basic food and drugs; public sector wage increases and fragile private sector threaten household income gains and economic growth.

Total population: 9,383,853
Total GDP: \$184.482 billion
GDP per capita: \$19,800
EU Membership: No
Top industries: metal-cutting machine tools, tractors, trucks, earthmovers, motorcycles, synthetic fibres, fertiliser, textiles, refrigerators, washing machines and other household appliances

Title	Quantity
Salesforce Developer	217
Salesforce Administrator	41
Salesforce Consultant	13
Java Developer	2068
C# Developer	157
React Developer	398
PHP Developer	545

3.1.3. BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina declared sovereignty in October 1991. The Federation and RS governments are responsible for overseeing most government functions. Import-dominated economy and consumption-heavy.

Total population: 3,807,764
Total GDP: \$51.244 billion
GDP per capita: \$15,700
EU Membership: No
Top industries: steel, coal, iron ore, lead, zinc, manganese, bauxite, aluminium, motor vehicle assembly, textiles, tobacco products, wooden furniture, ammunition, domestic appliances, oil refining

Title	Quantity
Salesforce Developer	10
Salesforce Administrator	11
Salesforce Consultant	2
Java Developer	108
C# Developer	17
React Developer	42
PHP Developer	55

3.1.4. BULGARIA

Bulgaria joined NATO in 2004 and the EU in 2007. Upper-middle-income EU economy; improving living standards and very robust economic growth.

Total population: 6,827,736
Total GDP: \$167.804 billion
GDP per capita: \$24,400
EU Membership: Yes
Top industries: electricity, gas, water; food, beverages, tobacco; machinery and equipment, automotive parts, base metals, chemical products, coke, refined petroleum, nuclear fuel; outsourcing centres

Title	Quantity
Salesforce Developer	130
Salesforce Administrator	46
Salesforce Consultant	69
Java Developer	1088
C# Developer	139
React Developer	191
PHP Developer	519

3.1.5. CROATIA

The country joined NATO in April 2009 and the EU in July 2013. In January 2023, Croatia further integrated into the EU by joining the Eurozone and the Schengen Area.

Total population: 4,169,239
Total GDP: \$123.348 billion
GDP per capita: \$31,600
EU Membership: Yes
Top industries: chemicals and plastics, machine tools, fabricated metal, electronics, pig iron and rolled steel products, aluminium, paper, wood products, construction materials, textiles, shipbuilding, petroleum and petroleum refining, food and beverages, tourism

Title	Quantity
Salesforce Developer	80
Salesforce Administrator	18
Salesforce Consultant	49
Java Developer	527
C# Developer	53
React Developer	96
PHP Developer	94

3.1.6. CZECH REPUBLIC

The Czech Republic joined NATO in 1999 and the European Union in 2004. The country formally added the short-form name Czechia in 2016, while also continuing to use the full form name, the Czech Republic.

Total population: 10,706,242
Total GDP: \$428.016 billion
GDP per capita: \$40,700
EU Membership: Yes
Top industries: motor vehicles, metallurgy, machinery and equipment, glass, armaments

Title	Quantity
Salesforce Developer	131
Salesforce Administrator	58
Salesforce Consultant	112
Java Developer	2056
C# Developer	444
React Developer	427
PHP Developer	781

3.1.7. ESTONIA

Estonia joined both NATO and the EU in the spring of 2004, formally joined the OECD in late 2010, and adopted the euro as its official currency on 1 January 2011.

Total population: 1,202,762
Total GDP: \$51.531 billion
GDP per capita: \$38,700
EU Membership: Yes
Top industries: food, engineering, electronics, wood and wood products, textiles; information technology, telecommunications

Title	Quantity
Salesforce Developer	5
Salesforce Administrator	3
Salesforce Consultant	8
Java Developer	269
C# Developer	28
React Developer	32
PHP Developer	79

3.1.8. GREECE

In 1981, Greece joined the EC (now the EU); it became the 12th member of the European Economic and Monetary Union in 2001. Tourism- and shipping-based EU economy.

Total population: 10,497,595
Total GDP: \$314.427 billion
GDP per capita: \$29,500
EU Membership: Yes
Top industries: tourism, food and tobacco processing, textiles, chemicals, metal products; mining, petroleum

Title	Quantity
Salesforce Developer	78
Salesforce Administrator	11
Salesforce Consultant	50
Java Developer	325
C# Developer	56
React Developer	55
PHP Developer	78

3.1.9. HUNGARY

Hungary joined NATO in 1999 and the EU five years later. High-income EU and OECD economy.

Total population: 9,670,009
Total GDP: \$326.186 billion
GDP per capita: \$33,600
EU Membership: Yes
Top industries: mining, metallurgy, construction materials, processed foods, textiles, chemicals (especially pharmaceuticals), motor vehicles

Title	Quantity
Salesforce Developer	64
Salesforce Administrator	44
Salesforce Consultant	62
Java Developer	1003
C# Developer	184
React Developer	66
PHP Developer	378

3.1.10. LATVIA

Latvia acceded to both NATO and the EU in the spring of 2004. It joined the euro zone in 2014 and the OECD in 2016.

Total population: 1,821,750
Total GDP: \$60.457 billion
GDP per capita: \$32,100
EU Membership: Yes
Top industries: processed foods, processed wood products, textiles, processed metals, pharmaceuticals, railroad cars, synthetic fibres, electronics

Title	Quantity
Salesforce Developer	75
Salesforce Administrator	7
Salesforce Consultant	9
Java Developer	383
C# Developer	44
React Developer	28
PHP Developer	210

3.1.11. LITHUANIA

In 2015, Lithuania joined the euro zone, and it joined the Organization for Economic Cooperation and Development in 2018.

Total population: 2,655,755
Total GDP: \$110.089 billion
GDP per capita: \$39,300
EU Membership: Yes
Top industries: metal-cutting machine tools, electric motors, televisions, refrigerators and freezers, petroleum refining, shipbuilding (small ships)

Title	Quantity
Salesforce Developer	48
Salesforce Administrator	23
Salesforce Consultant	2
Java Developer	622
C# Developer	61
React Developer	116
PHP Developer	389

3.1.12. NORTH MACEDONIA

North Macedonia gained its independence peacefully from Yugoslavia in 1991. Upper middle-income Balkan economy; current EU accession candidate.

Total population: 2,133,410
Total GDP: \$34.007 billion
GDP per capita: \$16,500
EU Membership: No
Top industries: food processing, beverages, textiles, chemicals, iron, steel, cement, energy, pharmaceuticals, automotive parts

Title	Quantity
Salesforce Developer	26
Salesforce Administrator	13
Salesforce Consultant	3
Java Developer	261
C# Developer	11
React Developer	54
PHP Developer	114

3.1.13. MOLDOVA

Upper middle-income Eastern European economy; Russian energy and regional dependence; agricultural exporter; declining workforce due to emigration and low fertility.

Total population: 3,250,532
Total GDP: \$36.637 billion
GDP per capita: \$14,000
EU Membership: No
Top industries: sugar processing, vegetable oil, food processing, agricultural machinery; foundry equipment, refrigerators and freezers, washing machines; hosiery, shoes, textiles

Title	Quantity
Salesforce Developer	17
Salesforce Administrator	9
Salesforce Consultant	6
Java Developer	507
C# Developer	55
React Developer	106
PHP Developer	194

3.1.14. MONTENEGRO

In 2017, Montenegro joined NATO and is currently completing its EU accession process, having officially applied to join the EU in December 2008.

Total population: 602,445
Total GDP: \$12.757 billion
GDP per capita: \$20,600
EU Membership: Yes
Top industries: steelmaking, aluminium, agricultural processing, consumer goods, tourism

Title	Quantity
Salesforce Developer	49
Salesforce Administrator	2
Salesforce Consultant	19
Java Developer	113
C# Developer	18
React Developer	23
PHP Developer	39

3.1.15. POLAND

Poland joined NATO in 1999 and the EU in 2004. Diversified, high-growth European economy; COVID-19 led to first recession in nearly 3 decades, albeit small.

Total population: 37,991,766
Total GDP: \$1.318 trillion
GDP per capita: \$34,900
EU Membership: Yes
Top industries: machine building, iron and steel, coal mining, chemicals, shipbuilding, food processing, glass, beverages, textiles

Title	Quantity
Salesforce Developer	1525
Salesforce Administrator	199
Salesforce Consultant	377
Java Developer	11500
C# Developer	833
React Developer	1502
PHP Developer	2531

3.1.16. ROMANIA

Romania joined NATO in 2004 and the EU in 2007. High-income, service- and industrial-based European economy; EU member but non-euro user until convergence criteria met.

Total population: 18,326,327
Total GDP: \$588.451 billion
GDP per capita: \$30,800
EU Membership: Yes
Top industries: electric machinery and equipment, auto assembly, textiles and footwear, light machinery, metallurgy, chemicals, food processing, petroleum refining, mining, timber, construction materials

Title	Quantity
Salesforce Developer	360
Salesforce Administrator	129
Salesforce Consultant	103
Java Developer	3001
C# Developer	228
React Developer	572
PHP Developer	1004

3.1.17. SERBIA

Upper middle-income Balkan economy; current EU accession candidate.

Total population: 6,693,375
Total GDP: \$135.534 billion
GDP per capita: \$19,800
EU Membership: No
Top industries: automobiles, base metals, furniture, food processing, machinery, chemicals, sugar, tires, clothes, pharmaceuticals

Title	Quantity
Salesforce Developer	101
Salesforce Administrator	33
Salesforce Consultant	55
Java Developer	982
C# Developer	149
React Developer	276
PHP Developer	1008

3.1.18. SLOVAKIA

Slovakia joined both NATO and the EU in the spring of 2004 and the euro zone on 1 January 2009. High-income, EU-member European economy; major electronics and automobile exporter

Total population: 5,425,319

Total GDP: \$173.582 billion

GDP per capita: \$31,900

EU Membership: Yes

Top industries: automobiles; metal and metal products; electricity, gas, coke, oil, nuclear fuel; chemicals, synthetic fibres, wood and paper products; machinery; earthenware and ceramics

Title	Quantity
Salesforce Developer	99
Salesforce Administrator	13
Salesforce Consultant	99
Java Developer	1087
C# Developer	147
React Developer	117
PHP Developer	224

3.1.19. SLOVENIA

Slovenia acceded to both NATO and the EU in the spring of 2004; it joined the euro zone and the Schengen Area in 2007.

Total population: 2,099,790

Total GDP: \$84.4 billion

GDP per capita: \$40,000

EU Membership: Yes

Top industries: ferrous metallurgy and aluminium products, lead and zinc smelting; electronics (including military electronics), trucks, automobiles, electric power equipment, wood products, textiles, chemicals, machine tools

Title	Quantity
Salesforce Developer	12
Salesforce Administrator	5
Salesforce Consultant	3
Java Developer	138
C# Developer	26
React Developer	11
PHP Developer	24

3.1.20. TURKEY

Turkey became an associate member of the European Community; it began accession talks with the EU in 2005. Over the past decade, economic reforms, coupled with some political reforms, have contributed to a growing economy, although in recent years, the government's growth-by-any-means strategy has sent inflation to historic highs and tested the broader financial system's resilience.

Total population: 83,593,483
Total GDP: \$2.668 trillion
GDP per capita: \$31,500
EU Membership: Yes
Top industries: textiles, food processing, automobiles, electronics, mining (coal, chromate, copper, boron), steel, petroleum, construction, lumber, paper

Title	Quantity
Salesforce Developer	367
Salesforce Administrator	172
Salesforce Consultant	82
Java Developer	2043
C# Developer	500
React Developer	660
PHP Developer	748

3.1.21. UKRAINE

Lower middle-income non-EU Eastern European economy; major wheat producer; industrial and energy exporter.

Total population: 43,306,477
Total GDP: \$535.579 billion
GDP per capita: \$12,900
EU Membership: No
Top industries: coal, electric power, ferrous and nonferrous metals, machinery and transport equipment, chemicals, food processing

Title	Quantity
Salesforce Developer	768
Salesforce Administrator	82
Salesforce Consultant	100
Java Developer	8004
C# Developer	967
React Developer	2002
PHP Developer	4020

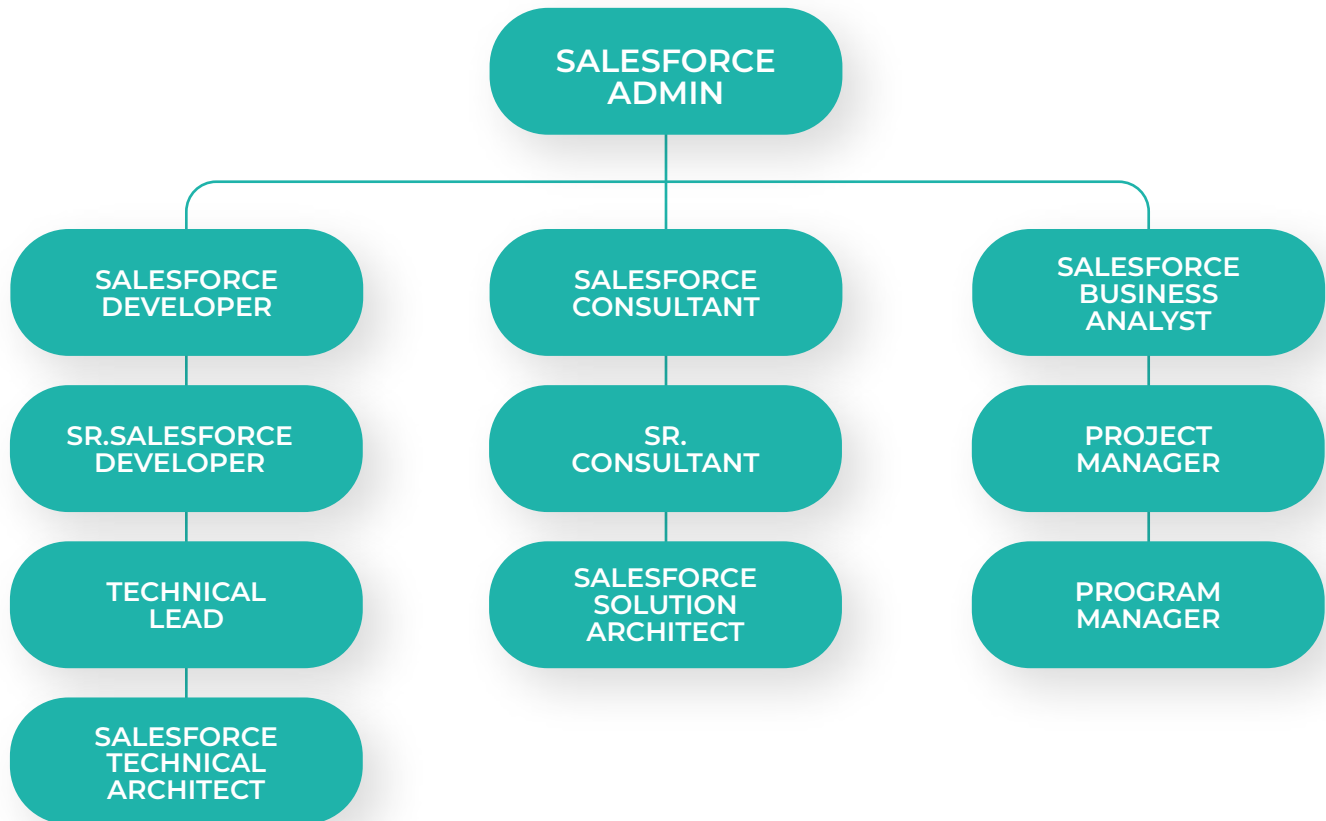
Below table summarises all roles by countries:

Country	Salesforce Developer	Salesforce Administrator	Salesforce Consultant	Java Developer	C# Developer	React Developer	PHP Developer
Albania	68	7	14	240	26	98	42
Belarus	217	41	13	2068	157	398	545
Bosnia and Herzegovina	10	11	2	108	17	42	55
Bulgaria	130	46	69	1088	139	191	519
Croatia	80	18	49	527	53	96	94
Czech Republic	131	58	112	2056	444	427	781
Estonia	5	3	8	296	28	32	79
Greece	78	11	50	325	56	55	78
Hungary	64	44	62	1003	184	66	378
Latvia	75	7	9	383	44	28	210
Lithuania	48	23	2	622	61	116	389
North Macedonia	26	13	3	261	11	54	114
Moldova	17	9	6	507	55	106	194
Montenegro	49	2	19	113	18	23	39
Poland	1525	199	377	11500	833	1502	2531
Romania	360	129	103	3001	228	572	1004
Serbia	101	33	55	982	149	276	1008
Slovakia	99	13	99	1087	147	117	224
Slovenia	12	5	3	138	26	11	24
Turkey	367	172	82	2043	500	660	748
Ukraine	768	82	100	8004	967	2002	4020

3.2. FULL STACK AND SALESFORCE ROLES MIND MAP AND DEFINITIONS

3.2.1. SALESFORCE ROLES

Different roles are needed in a Salesforce project because Salesforce is a complex platform with many different features and capabilities. Each role has a specific set of skills and responsibilities that are essential to the success of the project.



BUSINESS



SALESFORCE ADMINISTRATOR

A Salesforce Administrator solves business problems by customising the Salesforce Platform. They build, configure, and automate technology solutions to deliver business value. Salesforce Administrators work with stakeholders to define system requirements and customise the platform. Think of Salesforce Administrators as your trusted advisors on all things Salesforce. They are a vital bridge between business and technology.

SKILLS NEEDED

- **Salesforce Platform Knowledge:** In-depth understanding of the Salesforce platform, its features, and capabilities, including standard objects, fields, workflows, validation rules, and security settings.
- **Data Management:** Knowledge of Salesforce data import/export processes, data validation rules, data cleansing, and database management best practices.
- **Troubleshooting and Issue Resolution:** Capability to identify and resolve common Salesforce issues, such as data integrity problems, system errors, and user support inquiries.
- **Communication and Training:** Effective communication skills to collaborate with stakeholders, understand their requirements, and provide training and support to end-users.
- **Problem-Solving and Analytical Thinking:** Ability to analyse business requirements, troubleshoot problems, and propose appropriate solutions within the Salesforce platform.

SALESFORCE CONSULTANT

Salesforce Consultants implement and optimise Salesforce products in an effective and scalable way that is in line with their clients' requirements. With a consultant involved, Salesforce becomes like a block of plasticine to an organisation, moulding to exactly how their business operates. This is the services arm of the Salesforce partner ecosystem. You could say that a consultant's 'product' is their expertise, sold to clients as time and advice. They could work for a Salesforce Consulting Partner (aka. Solution Integrator), an agency, or independently (as a 'one-(wo)man-band').

SKILLS NEEDED

- **Salesforce Platform Knowledge:** In-depth understanding of the Salesforce platform, its features, and capabilities, including standard objects, fields, workflows, validation rules, and security settings.
- **Data Management:** Knowledge of Salesforce data import/export processes, data validation rules, data cleansing, and database management best practices.
- **Troubleshooting and Issue Resolution:** Capability to identify and resolve common Salesforce issues, such as data integrity problems, system errors, and user support inquiries.
- **Communication and Training:** Effective communication skills to collaborate with stakeholders, understand their requirements, and provide training and support to end-users.
- **Problem-Solving and Analytical Thinking:** Ability to analyse business requirements, troubleshoot problems, and propose appropriate solutions within the Salesforce platform.

SALESFORCE BUSINESS ANALYST

Business analysts are the people in your organisation who are asking 'why' – why a process happens the way it does – to understand what the business needs from its technology. A Salesforce Business Analyst, in a nutshell, acts as a translator. The business wants to accomplish something and we know it is going to be accomplished using Salesforce. So, a BA's job is to translate what the business wants to do, into how it actually gets done.

SKILLS NEEDED

- Ability to effectively gather, analyse, and document business requirements from stakeholders using techniques such as interviews, workshops, and observations.
- Proficiency in analysing existing business processes, identifying areas for improvement, and proposing optimised processes aligned with business objectives.
- Strong analytical and problem-solving skills to identify root causes of business challenges and recommend appropriate solutions.
- Capability to interact and collaborate with stakeholders at various levels of the organisation, understand their needs, and facilitate effective communication and relationship building.
- Excellent verbal and written communication skills.
- Domain Knowledge: Familiarity with the specific industry or business domain in which the BA operates, including an understanding of industry standards, regulations, and best practices.
- Familiarity with various business analysis tools and techniques, such as process modelling, data flow diagrams, user story mapping, and requirements management tools.
- Basic understanding of IT systems, software development methodologies, and technologies to effectively collaborate with technical teams and translate business requirements into technical specifications.

SALESFORCE PRODUCT OWNER

The Salesforce Product Owner is a representative of interested and influential stakeholders, who helps to define product features and to prioritise the product backlog. It incorporates both a tactical and strategic component of product development. The Salesforce Product Owner is there to create a roadmap that easily and effectively articulates the flow of timelines. The Product Owner defines the expectations of when to deliver the product. The Product Owner is one person and not a committee of people. The decision of the Product Owner must be respected and upheld by the organisation and the team. The Salesforce Product Owner and the team decide what, when, why and how to release product features.

SKILLS NEEDED

- Strong understanding of product management principles, including market analysis, product strategy, roadmap planning, and user-centred design.
- In-depth knowledge of the Salesforce platform, its features, and capabilities, including a deep understanding of Salesforce objects, data model, and customization options.
- Strong business acumen to understand market trends, customer needs, and business goals, and translate them into a compelling product vision and strategy.
- Excellent communication and relationship-building skills to collaborate with stakeholders, gather requirements, manage expectations, and drive alignment on product priorities.

- **User-Centric Mindset:** Ability to empathise with users, understand their pain points, and advocate for their needs throughout the product development lifecycle.
- **Requirements Management:** Proficiency in gathering, prioritising, and managing requirements, translating them into user stories and acceptance criteria, and maintaining a well-organised product backlog.
- **Agile Methodologies:** Thorough understanding of Agile principles and methodologies, such as Scrum or Kanban, and experience working in an Agile development environment.
- **Decision Making:** Strong analytical and problem-solving skills to make data-driven decisions, prioritise competing demands, and resolve conflicts to maximise product value.

TECHNOLOGY



SALESFORCE DEVELOPER

Salesforce Developers extend Salesforce orgs beyond declarative (point-and-click) configuration, build apps, and in turn, optimise business operations. Salesforce Developers will typically use two programming languages: Apex and Javascript. The responsibilities of a Salesforce Developer can range from typical code-based tasks, through to work that requires architectural concerns (understanding the wider context of what their code is for).

SKILLS NEEDED

- Strong proficiency in Salesforce development technologies and languages, including Apex, Lightning Web Components (LWC), and Salesforce APIs.
- In-depth understanding of the Salesforce platform, including its standard objects, features, and capabilities, and knowledge of Salesforce best practices and design patterns.
- Experience integrating Salesforce with external systems using SOAP, REST APIs, and other integration patterns.
- Experience with version control systems, such as GIT or SVN, and understanding of branching, merging, and code deployment best practices in Salesforce development.
- Strong analytical and problem-solving skills to understand complex business requirements, propose appropriate technical solutions, and troubleshoot and resolve issues.

SOLUTION ARCHITECT

Salesforce Solution Architects are responsible for designing quality, scalable, and performant solutions inside Salesforce, ensuring it all fits together into a coherent and attractive solution. The Solution Architect role has been on the rise in line with the demand for skilled professionals that can look at the wider picture (multi-cloud) when approaching a Salesforce project. Simply put, Salesforce Solution Architects are responsible for the 'solution'. They also prepare data for sending to other systems and process data when it's received from other systems.

SKILLS NEEDED

- Great understanding of different Salesforce products and their capabilities and limits
- Possessing strong interpersonal skills to build and maintain relationships with stakeholders, team members, and clients, fostering collaboration and effective communication.
- Ability to tailor communication style and content to suit various audiences at different levels within the organisation. Effectively conveying information in a manner that is easily understood and resonates with stakeholders.
- Taking a strategic approach to solution design, considering long-term goals and objectives. Having a proven ability to develop and execute tactical plans that support the overall strategy.
- Excellent ability to coach, motivate, and direct the work tasks of a multidisciplinary team of Salesforce professionals. Providing guidance and support to team members to ensure successful project delivery.

SALESFORCE TECHNICAL ARCHITECT

A Salesforce architect is responsible for designing and implementing the technical architecture of Salesforce systems, including customizations, integrations, and data migration. They work closely with business stakeholders and other technical teams to ensure that the Salesforce platform meets the organisation's needs and aligns with its overall technical strategy.

SKILLS NEEDED

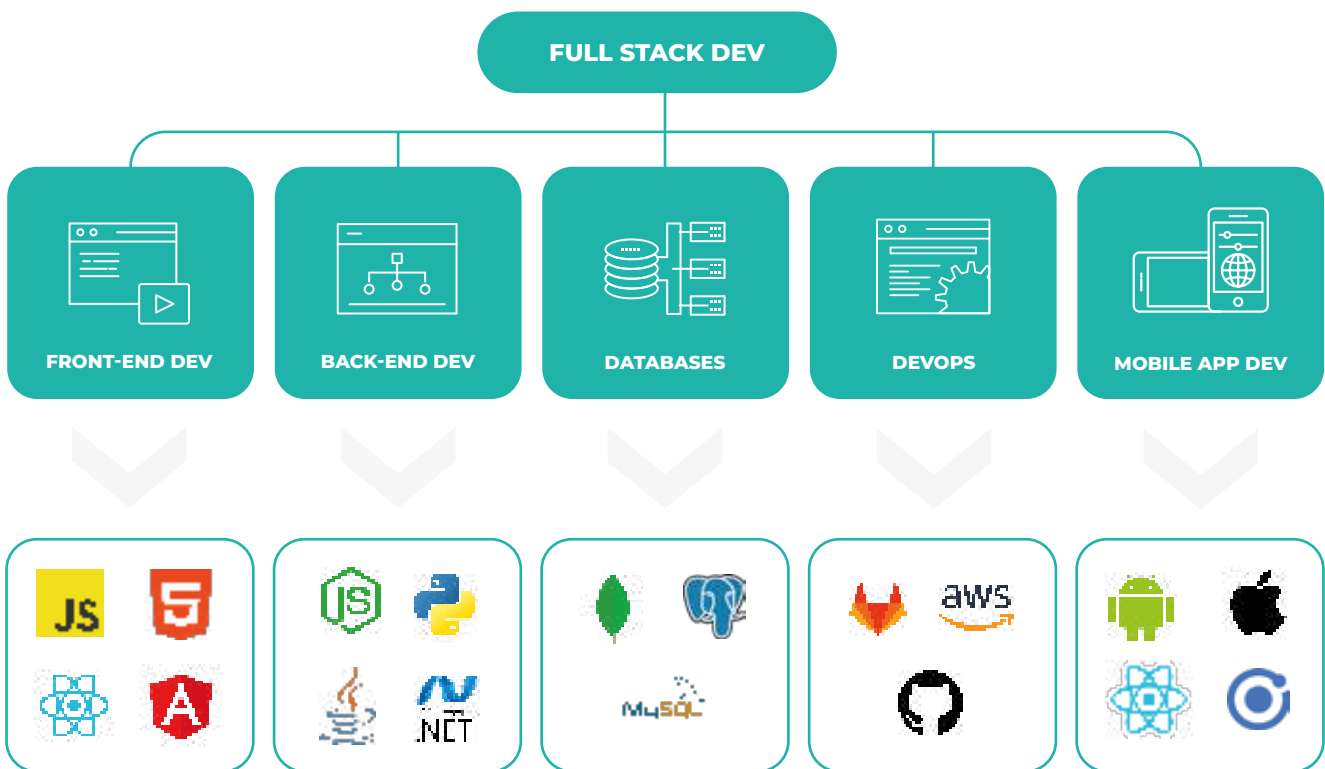
- In-depth knowledge and expertise in the Salesforce platform, its architecture, features, and capabilities, including a strong understanding of Salesforce objects, data model, and customization options.
- Proficiency in designing scalable and robust Salesforce solutions, considering factors such as system integration, data management, security, and performance optimization.
- Ability to provide technical leadership and guidance to development teams, ensuring adherence to best practices, coding standards, and quality assurance processes.
- Experience in designing and implementing integrations between Salesforce and other systems using various integration patterns and technologies, such as APIs, middleware, and ETL tools.
- Capability to create technical plans and estimates for Salesforce projects, considering scope, complexity, resource requirements, and potential risks.
- Knowledge of Salesforce performance tuning techniques, including code optimization, query optimization, data indexing, and caching strategies
- Excellent communication and relationship-building skills to collaborate with stakeholders, gather requirements, manage expectations, and provide technical guidance.

- Understanding of business processes and ability to translate business requirements into technical solutions, considering long-term strategic goals and ROI.
- Experience in mentoring and coaching development teams, providing guidance on
- Salesforce best practices, architecture patterns, and emerging technologies.

3.2.2. FULL STACK ROLES

It's important to note that the technology choices may vary based on project requirements and organisational preferences. These roles highlight the technology stack focus rather than the specific responsibilities, as full stack developers are generally expected to have a breadth of knowledge across both front-end and back-end development, regardless of the technology stack they work with.

FULL STACK DEVELOPMENT



According to [The Stack Overflow Developer Survey](#) the most popular full stack development stacks were:

FRONT END

REACT

React is a JavaScript library that is used to build user interfaces. React is known for its performance and scalability. React is a good choice for developers who want to build highly performant and scalable web applications.

ANGULAR

Angular is a JavaScript framework that is used to build web applications. Angular is known for its comprehensiveness and flexibility. Angular is a good choice for developers who want to build complex web applications.

VUE.JS

Vue.js is a JavaScript framework that is used to build web applications. Vue.js is known for its simplicity and ease of use. Vue.js is a good choice for developers who want to build web applications quickly and easily.

BACK END

According to the [Stack Overflow Developer Survey 2022](#), the most popular choices for backend in full stack development are:

NODE.JS

Node.js is a JavaScript runtime environment that is used to build server-side applications. Node.js is known for its speed, scalability, and event-driven architecture. Node.js is a good choice for developers who want to build highly scalable and performant web applications.

PYTHON

Python is a general-purpose programming language that is known for its simplicity and readability. Python is a good choice for developers who want to build web applications that are easy to develop and maintain. Python is also a good choice for developers who want to use Python for both the frontend and backend of their applications.

JAVA

Java is a general-purpose programming language that is known for its reliability and security. Java is a good choice for developers who want to build enterprise-grade web applications. Java is also a good choice for developers who want to use Java for both the frontend and backend of their applications.

.NET

.NET is a development platform from Microsoft that is used to build a wide range of applications, including web applications. .NET is a good choice for developers who want to build web applications that are compatible with Microsoft's .NET platform. .NET is also a good choice for developers who want to use C# for both the frontend and backend of their applications.

DATABASES

MYSQL

MySQL is a relational database management system (RDBMS) that is open source and free to use. It is one of the most popular databases in the world, and it is used by a wide range of applications, including web applications, mobile applications, and enterprise applications. MySQL is known for its speed, reliability, and scalability. It is also easy to learn and use, making it a good choice for developers of all skill levels.

POSTGRESQL

PostgreSQL is another popular open source RDBMS. It is known for its flexibility, scalability, and performance. PostgreSQL is also ACID-compliant, which means that it guarantees data consistency and integrity. PostgreSQL is a good choice for developers who need a database that can handle a wide range of workloads. It is also a good choice for developers who need a database that is highly secure.

SQLITE

SQLite is a self-contained, serverless, zero-configuration, transactional SQL database engine. SQLite is the most used database engine in the world. SQLite is built into all mobile phones and most computers and comes bundled inside countless other applications that people use every day. SQLite is a popular choice for full stack development because it is easy to use, fast, and reliable. SQLite is also a good choice for small to medium-sized applications.

MONGODB

MongoDB is a non-relational database that is known for its flexibility and scalability. It is a good choice for developers who need a database that can handle a wide range of data types, including documents, arrays, and geospatial data. MongoDB is also a good choice for developers who need a database that can be easily scaled horizontally.

MICROSOFT SQL SERVER

Microsoft SQL Server is a commercial RDBMS that is known for its performance, scalability, and integration with other Microsoft products. It is a good choice for developers who need a database that can be used with Microsoft's .NET platform. Microsoft SQL Server is also a good choice for developers who need a database that can be used with other Microsoft products, such as SharePoint and Exchange.

MOBILE APPLICATION DEVELOPMENT

SWIFT

Swift is a modern and powerful programming language developed by Apple for building apps on iOS, macOS, watchOS, and tvOS. It emphasises safety, has a clean syntax, and delivers high performance. It's interoperable with Objective-C, supports modern language features, and benefits from an active open-source community. Swift is an excellent choice for developers building apps for Apple devices.

KOTLIN

Kotlin's expressive syntax and safety features make it easier to write clean and maintainable code for Android apps. It seamlessly integrates with existing Java codebases and provides excellent tooling support in Android Studio. With its growing popularity and vibrant community, Kotlin is an ideal choice for developers looking to streamline their Android app development process.

FLUTTER

Flutter is a cross-platform UI toolkit by Google, using Dart programming language. It enables developers to build visually appealing and high-performance applications for mobile, web, and desktop from a single codebase. With hot reload, developers can see real-time changes without losing the app state. Flutter provides a rich set of customizable widgets and a flexible layout system. Its active community contributes to its ecosystem, offering plugins and packages for various use cases.

REACT NATIVE

React Native is an open-source framework by Facebook for building cross-platform mobile apps using JavaScript and React. It offers a component-based architecture, "hot reload" for fast development, and access to device APIs. With a strong community and extensive resources, React Native simplifies the process of creating high-performance mobile apps for both iOS and Android platforms.

3.3. LIST OF TOP UNIVERSITIES EDUCATING DEVELOPERS

The table below shows selection of respectable and recognisable universities providing qualified software developers in Central and Eastern Europe. It should help you to access the educational background of your potential team members. Of course you will find plenty of talented developers and architects without a good degree in engineering but this list might be helpful when doing an initial screening of candidates.

The list consists of higher education institutions that were listed on QS World University Rankings by Subject 2023: Engineering & Technology as well as universities who are the top in their respective countries but not necessarily made it to the top 500 global ranking.

UNIVERSITY ENGLISH NAME	UNIVERSITY NATIVE NAME	COUNTRY	RANKING POSITION	NUMBER OF COMPUTER SCIENCE GRADUATES PER YEAR
University of Tirana	Universiteti I Tiranës	Albania	Not classified	1600
Belarusian State University	Беларускі дзяржаўны ўніверсітэт	Belarus	401-450	1200
University of Sarajevo	Univerzitet u Sarajev	Bosnia and Herzegovina	Not classified	500
Sofia University "St. Kliment Ohridski"	University of Sofia St. Kliment Ohridsk	Bulgaria	Not classified	500
Technical University - Sofia	Universite de technologie Européenne	Bulgaria	Not classified	250
University of Zagreb	Sveučilište U Zagrebu	Croatia	Not classified	900
Czech Technical University in Prague	České vysoké učení technical V Praze	Czech Republic	190	2000
Brno University of Technology	Vyokè Učeni technical V Brně	Czech Republic	289	1500
Charles University	Univerzita Karlova	Czech Republic	401-450	1500
Academy of Sciences of the Czech Republic	Akademie věd České Republik	Czech Republic	451-500	1500

UNIVERSITY ENGLISH NAME	UNIVERSITY NATIVE NAME	COUNTRY	RANKING POSITION	NUMBER OF COMPUTER SCIENCE GRADUATES PER YEAR
University of Tartu	Tartu Ülikool, Universitas Tartuensis	Estonia	Not classified	1200
National and Kapodistrian University of Athens	Ethnikó Ke Kapodistrakó panepistímio Athinón	Greece	Not classified	1500
Aristotle University of Thessaloniki	Aristotelian University, University of Thessaloniki	Greece	Not classified	1600
Budapest University of Technology and Economics	Budapesti Muszaki és Gazdaság tudományi	Hungary	224	2000
Riga Technical University	Rígas Tehniskā Universitāte	Latvia	Not classified	600
Vilnius University	Vilniaus Universitetas	Lithuania	Not classified	600
Ss. Cyril and Methodius University of Skopje	UKIM	Macedonia	Not classified	800
University of the Academy of Sciences of Moldova	Universitatea de Stat „Dimitrie Cantemir” (USDC)	Moldova	Not classified	300
University of Montenegro	Univerzitet Crne Gore	Montenegro	Not classified	500

UNIVERSITY ENGLISH NAME	UNIVERSITY NATIVE NAME	COUNTRY	RANKING POSITION	NUMBER OF COMPUTER SCIENCE GRADUATES PER YEAR
Warsaw University of Technology	Politechnika Warszawska	Poland	231	2000
Wroclaw University of Science and Technology	Politechnika Wroclawska	Poland	340	1500
AGH University of Science and Technology	Akademia Górniczo-Hutnicza Stanisława Staszica w Krakowie	Poland	366	2000
Gdańsk University of Technology	Politechnika Gdańska	Poland	391	1500
University of Warsaw	Uniwersytet Warszawski, Universitas Varsoriensis	Poland	401-450	1500
University Politehnica of Bucharest	Universitatea Politehnica din Bucuresti	Romania	371	1500
Babes-Bolyai University	Universitatea Babes-Bolyai, Babes-Bolyai Tudományegyetem	Romania	501-530	1000
University of Belgrade	-	Serbia	Not classified	1200
Comenius University in Bratislava	University Komenského V Bratislave	Slovakia	Not classified	800

UNIVERSITY ENGLISH NAME	UNIVERSITY NATIVE NAME	COUNTRY	RANKING POSITION	NUMBER OF COMPUTER SCIENCE GRADUATES PER YEAR
Slovak University of Technology in Bratislava	Slovenia Technical Univerzita V Bratislave	Slovakia	Not classified	600
Technical University of Kosice	Technical Univerzita v Košiciach	Slovakia	Not classified	1400
University of Ljubljana	Univerza Ljubljani, Universitas Labacensis	Slovenia	Not classified	500
Istanbul Technical University	Teknik Üniversitesi	Turkey	108	1200
Middle East Technical University	Orta Doğu Teknik Üniversitesi	Turkey	133	1000
Boğaziçi Üniversitesi	Bosphorus University	Turkey	293	600
Bilkent University	Bilkent Üniversitesi	Turkey	301	1200
Koç University	Koç Üniversitesi	Turkey	331	800
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Kyiv Polytechnic Institute	Ukraine	451-500	1500

3.5. BUSINESS AND CULTURAL ENVIRONMENT BY COUNTRY



If you are a Chief Technology Officer (CTO) or Project Manager considering outsourcing development services for your software development project, it's crucial to understand the cultural value sets of countries that are prominent in the market. Cultural values influence the work environment, communication styles, and overall collaboration between your team and the outsourced developers. In this article, we will provide an overview of the cultural values pertinent to selected countries from the CEE region like Ukraine, Belarus, Poland, Slovakia, or Romania. A few smaller countries were combined into regional clusters (Balkan, Baltics) but please be aware that it does not mean that they are all the same. This summary should help you to make an informed decision while selecting a suitable outsourcing destination for your project.

BALKANS (ALBANIA, BOSNIA AND HERZEGOVINA, CROATIA, MACEDONIA, MONTENEGRO, SERBIA, SLOVENIA)

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

FOREIGN LANGUAGES KNOWLEDGE:

ALBANIA

The results of the Adult Education Survey, released in May 2018, showed that 39.9% of the 25–64 years old are able to use at least one foreign language. The main foreign language known is English with 40.0%, followed by Italian with 27.8% and Greek with 22.9%.

BOSNIA AND HERZEGOVINA

English is taught as a foreign language to children in Bosnia's schools, ensuring that they develop a strong command of the language by the time they graduate. This represents a noteworthy accomplishment for Bosnia, considering that a decade or two ago, English had a limited presence within the school systems. Today, it has become the primary foreign language for most children in the country.

CROATIA

English: Among the younger and highly educated population, English is widely spoken and understood. It is a commonly used language, fostering seamless communication with visitors from around the globe.

German: Due to the significant presence of Croats in Germany, Austria, and Switzerland, German is the second most prevalent foreign language spoken in Croatia. This makes interactions with German-speaking tourists and residents more convenient.

Italian: Italian holds immense popularity, particularly in regions such as Istria, Rijeka, and the Kvarner area. The influence of Italian culture and historical ties has resulted in a sizable Italian-speaking community in these regions.

MACEDONIA

A number of foreign languages are spoken in Macedonia including English, French, German, and Serbo-Croatian. English is more popular among the Macedonian youth and is growing in popularity in the country.

SERBIA, MONTENEGRO

English: Serbs, especially the younger generation, exhibit a commendable command of English. English is a mandatory subject in schools, ensuring that everyone acquires at least a basic level of proficiency. As a result, it is widely spoken and holds significant popularity throughout the country.

German: Following English, German stands as the second most widely spoken language in Serbia. Many Serbs who have aspirations of relocating to Germany or other German-speaking countries eagerly undertake German language learning. While exact numbers are not available, German-speaking Serbs can be predominantly found in larger cities.

SLOVENIA

In present times, English has taken precedence and is taught as the primary foreign language in Slovenia, starting from pre-school and continuing throughout the country. Meanwhile, German maintains its influential role as an important language and remains the most widely chosen second foreign language in high schools. According to the European Union, Slovenia boasts the highest level of German proficiency among non-Germanic countries, surpassed only by Luxembourg, the Netherlands, and Denmark. Additionally, Italian, Spanish, French, and Hungarian are among the other popular choices for second foreign languages.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Slovenia	53,352
Bosnia and Herzegovina	47,135
Croatia	50,891
Serbia	48,769
Montenegro	47,395
Macedonia	46,726
Albania	No data

EU MEMBERSHIP:

YES	NO
Slovenia	Bosnia and Herzegovina
Croatia	Serbia
	Montenegro
	Macedonia
	Albania

BALTIC STATES (ESTONIA, LATVIA, LITHUANIA)

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

5/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Enough feedback from the development team
- Enough improvement suggestions from the development team
- Medium need for control of team members
- Decision making concentrated around more than one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

6/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- More team collaboration
- Medium need for team members integration from the top
- Need to focus on building of relationship with each individual

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

5/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformer

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

6/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Medium retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Harder negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

ESTONIA

The data from the 2021 census show that an estimated 76% of Estonia's population speak a foreign language; while 10 years ago, the most widely spoken foreign language in Estonia was Russian, today it is English.

LATVIA

The Russian language is spoken natively by some 37% of Latvia's population, most of them in the cities and Latgale. This includes not only ethnic Russians (26,9%) but also many other minorities (Ukrainians, Belarusians, Jews). After independence (1990) English has replaced Russian as the most common foreign language to learn. The younger generations of ethnic Latvians usually speak English far better than Russian (and would switch to English when communicating with foreigners).

LITHUANIA

Spoken by some 70% of the population, Russian is still the most popular second language in Lithuania, although this is declining. The Russian language was both mandatory and ubiquitous during the Soviet occupation (1940-1990), making virtually everybody in the older generations (i.e. those born ~1980 and before) fluent in it. English has emerged as the predominant foreign language of choice in contemporary times. With approximately 30% of the total population and a staggering 80% of the youth proficient in English, it stands as the most popularly learned language in the country.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Estonia	52,430
Latvia	50,746
Lithuania	51,726

EU MEMBERSHIP:

YES	NO
Estonia	
Latvia	
Lithuania	

BELARUS

Belarus has emerged as a prominent destination for IT outsourcing services after 2010.

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

3/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

3/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

DISCIPLINE AND RELIABILITY:

Belarusians are known for their discipline, punctuality, and reliable work ethic.

RESPECT FOR AUTHORITY:

Belarusian professionals typically show respect for authority figures and adhere to established hierarchies.

ADAPTABILITY:

Developers from Belarus are often praised for their ability to adapt quickly to new technologies and methodologies.

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

Similar to neighbouring countries, older people and people in villages usually don't speak English, while younger people and inhabitants of big cities speak it pretty well. Some people also speak German, French and Polish.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Belarus	45,537

EU MEMBERSHIP:

YES	NO
	Belarus

BULGARIA

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

7/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

A 2021 survey conducted by Nielsen Atmosphere in Bulgaria found that 78% of Bulgarians speak at least one foreign language, mostly English. Half of those with a command of a foreign language learned it during their primary and secondary education.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Bulgaria	49,364

EU MEMBERSHIP:

YES	NO
Bulgaria	

CZECH REPUBLIC

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

4/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- More feedback from the development team
- More improvement suggestions from the development team
- Low need for control of team members
- Decision making concentrated many team members

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

8/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- More team collaboration
- Less need for team members integration from the top
- No need to focus on building of relationship with each individual
- No need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

7/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher collaboration within a team
- Focus on team results and less care of own goal
- Democratic decision making
- More empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

9/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- More retention challenges
- More uncertainty and panic during economic slowdowns
- Harder negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

In the Czech Republic, foreign language knowledge is relatively widespread, especially among the younger population and those in urban areas. English is the most commonly spoken foreign language, and many Czechs, particularly in cities and tourist areas, have a basic to intermediate level of proficiency in English. English is widely taught in schools as a mandatory subject, and many Czechs also learn it through exposure to international media, movies, and the internet.

Additionally, due to the country's location in central Europe and its proximity to other European countries, some Czechs also have a basic understanding of German.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Czech Republic	53,045

EU MEMBERSHIP:

YES	NO
Czech Republic	

GREECE

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

5/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Enough feedback from the development team
- Enough improvement suggestions from the development team
- Medium need for control of team members
- Decision making concentrated around more than one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

2/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

3/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

Based on the latest Europe-wide survey of languages in Europe by the European Commission in the age range 15-34 years old almost 50% of Greeks speak English, in the next range 35-54 years old around 33% of them can speak English.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Greece	52,588

EU MEMBERSHIP:

YES	NO
Greece	

HUNGARY

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

7/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

6/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Good team collaboration
- Little need for team members integration from the top
- Little need to focus on building of relationship with each individual
- Little need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

4/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

7/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- More retention challenges
- More aggression and panic during economic slowdowns
- Lower ability to work collaboratively during harder times
- Harder negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

English is widely taught in schools and is considered a mandatory subject in Hungarian education. As a result, younger generations in Hungary tend to have a good grasp of English, especially in urban areas and among those who have received higher education.

German is also quite prevalent, and many Hungarians have some knowledge of the language. The historical and economic ties between Hungary and German-speaking countries have contributed to the popularity of German as a foreign language.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Hungary	49,001

EU MEMBERSHIP:

YES	NO
Hungary	

MOLDOVA

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

Official language of Moldova is Romanian. During the Soviet era, Russian was the predominant language of administration and communication, and many older Moldovans are still fluent in Russian. English is becoming more popular among younger generations and is often taught as a foreign language in schools. In urban areas and among the youth, there is an increasing number of people with a basic to intermediate level of English proficiency.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Moldova	46,344

EU MEMBERSHIP:

YES	NO
	Moldova

POLAND

Poland has gained recognition as a favourable outsourcing destination due to its talented pool of developers.

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

4/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- More feedback from the development team
- More improvement suggestions from the development team
- Low need for control of team members
- Decision making concentrated around more than one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

5/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Medium competition within a team
- Medium focus on own results and more care of a common goal
- Semi-autocratic decision making
- Medium level of empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

DETAIL-ORIENTED:

Polish professionals pay great attention to detail and are known for their meticulous work.

COLLABORATION AND CONSENSUS:

Teamwork and reaching consensus are highly valued, ensuring effective collaboration.

WORK-LIFE BALANCE:

Polish culture emphasises a healthy work-life balance, promoting employee well-being.

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

English is taught as a mandatory subject in Polish schools, starting from an early age. As a result, younger generations in Poland tend to have a good command of English. Many of them already work in the international environment so they have to use English on a daily basis.

Apart from English second most popular language is German which is often also taught in schools.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Poland	49,828

EU MEMBERSHIP:

YES	NO
Poland	

ROMANIA

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

RESPECT FOR COMPETENCE:

Romanians appreciate competence and expertise. When offering feedback, they tend to focus on professional aspects and expect individuals to take responsibility for their performance. Feedback is often given in a manner that respects the recipient's professional capabilities.

OPENNESS AND EXPRESSIVENESS:

Romanians generally value honesty and directness in communication. They tend to express their opinions openly and transparently, including when providing feedback. This open communication style aims to ensure clarity and avoid misunderstandings.

PRAGMATISM:

Romanians often prioritise practicality and efficiency. They value getting to the point quickly and appreciate feedback that helps improve outcomes and solve problems. This pragmatic approach encourages direct feedback to address issues directly and effectively.

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

According to the English Proficiency Index Romania has high proficiency of English and it's one of the highest in Europe.

French is the second most commonly learned foreign language in Romania. It has a significant cultural and historical influence due to past connections with France. Many Romanians study French in school, and it remains popular among those interested in arts, culture, and international relations.

German is also quite popular in Romania, especially in regions with a significant German-speaking minority, such as Transylvania. Many Romanians have some knowledge of German, and it is often taught as a second foreign language in schools.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Romania	49,155

EU MEMBERSHIP:

YES	NO
Romania	

SLOVAKIA

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

4/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- More feedback from the development team
- More improvement suggestions from the development team
- Low need for control of team members
- Decision making concentrated around team members

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

7/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- More team collaboration
- Lower need for team members integration from the top
- Lower need to focus on building of relationship with each individual
- Lower need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

7/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Medium competition within a team
- Focus on team results
- Democratic decision making
- More empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

8/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- More retention challenges
- More aggression and panic during economic slowdowns
- Harder negotiation of contract changes

STRONG WORK ETHIC:

Slovak professionals are known for their diligence, commitment, and dedication to their work.

RELATIONSHIP BUILDING:

Establishing personal connections and trust is important for fostering successful partnerships.

RESPECT FOR TRADITION:

Slovak culture emphasises respect for traditional values and established norms.

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

Slovaks have reached the highest level of English in history and are approaching the world's top. Slovakia is at 15th place - the best so far - in the results of the EF English Proficiency Index 2022 survey.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Slovakia	51,986

EU MEMBERSHIP:

YES	NO
Slovakia	

TURKEY

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

4/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

2/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

4/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

English is the most widely taught and understood foreign language in Turkey. It is taught as a mandatory subject in schools from an early age, and many Turks, especially the younger population and those in urban centers, have a good command of English.

German is the second most commonly learned foreign language in Turkey. Many Turks have some knowledge of German, especially in regions with significant Turkish-German cultural and economic ties. German is often taught as a second foreign language in schools, and some Turks may have learned it through family connections or for career opportunities.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Turkey	46,860

EU MEMBERSHIP:

YES	NO
	Turkey

UKRAINE

KEY CULTURAL VALUES FOR CONSIDERATION INCLUDE:

POWER DISTANCE:

Inequality between people/ groups is related to the solutions found to the fundamental problem. In cultures with high power distance, individuals respect their superiors and avoid criticising them. In cultures with low power distance, it is natural to criticise and challenge superiors.

SCORE:

8/10

where 1 is lowest
and 10 is highest

IMPACT ON WORK:

- Less feedback from the development team
- Less improvement suggestions from the development team
- Higher need for control of team members
- Decision making concentrated around one person

INDIVIDUALISM/COLLECTIVISM:

It is related to the degree to which members of society are seen as individuals or members of a group. In a communitarian culture, the group's interests include the interests of the individual. People exhibit togetherness focused on a tightly bound lifelong relationship of commitment without questioning their loyalty to each other.

SCORE:

2/10

where 1 is most individual
and 10 is most collective

IMPACT ON WORK:

- Less team collaboration
- Need for team members integration from the top
- Need to focus on building of relationship with each individual
- Need to explain the importance of his work to the benefit of the entire project

MASCULINITY/FEMININITY:

Cultures in which dominant values ambitious, enthusiastic, competitive are called masculine cultures. On the contrary, in female cultures, friendly environment seeking, status security, physical security, etc. features stand out.

SCORE:

3/10

where 1 is most masculine
and 10 is most feminine

IMPACT ON WORK:

- Higher competition within a team
- Focus on own results and less care of a common goal
- Autocratic decision making
- Less empathy and understanding for underperformers

UNCERTAINTY AVOIDANCE:

It is about society's reaction to uncertainty about the future. Societies with high levels of uncertainty avoidance become anxious in unpredictable situations. Societies with low uncertainty avoidance are less aggressive and relatively tolerant in unpredictable situations.

SCORE:

2/10

where 1 is lowest level of
uncertainty and 10 is highest
level of uncertainty

IMPACT ON WORK:

- Less retention challenges
- Less aggression and panic during economic slowdowns
- Ability to work collaboratively during harder times
- Easier negotiation of contract changes

TECHNICAL EXCELLENCE:

Ukrainian developers often excel in technical skills and strive for high-quality work.

INDIVIDUALISM:

Independence and self-expression are valued, leading to a proactive approach to problem-solving.

DIRECT COMMUNICATION:

Ukrainians tend to be straightforward and prefer clear and concise communication. They might be sometimes rigid when it comes to accepting not so positive feedback.

KEY BUSINESS FACTORS FOR CONSIDERATION INCLUDE:

FOREIGN LANGUAGES KNOWLEDGE:

Russian is one of the most commonly spoken foreign languages in Ukraine. Due to historical and cultural connections with Russia and the former Soviet Union, many Ukrainians are bilingual in Ukrainian and Russian.

According to the English Proficiency Index Ukraine places in the moderate proficiency range.

LABOUR COST:

The median annual salary for a remote Software Developer:

COUNTRY	ANNUAL BASE SALARY (USD)
Ukraine	48,175

EU MEMBERSHIP:

YES	NO
	Ukraine

3.6. SOFTWARE DEVELOPER LABOUR COST BY COUNTRY

COUNTRY	ANNUAL BASE SALARY (USD)
Albania	No Data
Macedonia	46,726
Montenegro	47,395
Serbia	48,769
Croatia	50,891
Bosnia and Herzegovina	47,135
Slovenia	53,352
Estonia	52,430
Latvia	50,746
Lithuania	51,726
Belarus	45,537
Bulgaria	49,364
Czech Republic	53,045
Greece	52,588
Hungary	49,001
Moldova	46,344
Poland	49,828
Romania	49,155
Slovakia	51,986
Turkey	46,860
Ukraine	48,175

3.7. IT COMPANIES IN NUMBERS BY COUNTRY

COUNTRY	IT SERVICES	MANAGED IT SERVICES	CLOUD CONSULTING	BI AND BIG DATA	IT STAFF AUGMENTATION	CYBER SECURITY
Albania	27	10	3	1	6	-
Bulgaria	131	66	36	26	50	15
Croatia	93	45	28	12	19	11
Czech Republic	82	21	27	20	21	11
Estonia	70	25	19	11	34	14
Creece	46	9	18	10	2	13
Hungary	71	32	14	12	29	6
Latvia	26	11	2	3	6	1
Lithuania	61	27	14	18	21	14
Macedonia	79	48	25	10	10	29
Moldova	30	13	4	1	11	6
Montenegro	14	16	1	1	4	4
Poland	618	162	236	166	305	92
Romania	196	156	43	29	78	27
Serbia	71	26	13	13	29	9
Slovakia	53	18	8	9	15	4
Slovenia	41	16	5	8	3	3
Turkey	94	39	26	21	14	13
Ukraine	477	141	124	87	307	72

4 DEVELOPERS MARKET DEMAND OVERVIEW

4.1. FULL STACK AND SALESFORCE OPEN JOBS IN NUMBERS BY COUNTRY

COUNTRY	SALESFORCE DEVELOPER	SALESFORCE ADMINISTRATOR	SALESFORCE CONSULTANT	JAVA DEVELOPER	C# DEVELOPER	REACT DEVELOPER	PHP DEVELOPER
Albania	11	-	1	14	-	26	8
Bulgaria	46	3	-	128	-	121	60
Croatia	34	1	2	264	-	74	24
Czech Republic	127	1	8	221	-	167	77
Estonia	24	-	-	45	-	50	27
Creece	52	1	-	162	-	164	81
Hungary	66	8	4	140	-	129	56
Latvia	17	4	1	36	-	49	25
Lithuania	28	4	2	63	-	62	52
Macedonia	7	-	-	17	-	16	10
Moldova	3	-	-	20	-	18	8
Montenegro	1	-	-	4	-	3	2
Poland	635	59	9	1412	-	1137	409
Romania	269	20	6	685	-	425	155
Serbia	14	1	2	40	-	43	31
Slovakia	44	1	-	84	-	73	26
Slovenia	7	-	-	20	-	19	10
Turkey	19	2	-	156	-	198	94
Ukraine	10	7	1	93	-	121	39

5 HOW TO FIND A GOOD DEVELOPER

The global openings for software developers will rise by at least 25% in 2023. Unfortunately, the labour market is tight as there are not nearly enough skilled persons to fill those positions. This global talent shortage may exceed 85 million by 2030, with 87% of companies in danger of talent shortage and at least 57% struggling to hire qualified developers.

This problem is particularly true for Europe; innovation and job creation in European industries are increasingly fueled by novel technologies requiring skills and know-how. Unfortunately, the workforce and specialists are insufficient to meet these needs. Statistics show that more than 50% of companies searching for software development skills cannot recruit professionals. Countries like Germany are bound to see the talent gap in the software industry grow by at least 80,000 open positions in 2026 due to software developer shortages.

GLOBAL TALENT SHORTAGE

**85 MILLION
BY 2023**

Estimated talent
shortage

**\$8,5
TRILLION**

In unrealized annual
revenues by 2030

**57% OF TECH
EXECUTIVES**

Struggle to hire qualified
programmers

**87% OF
COMPANIES**

Report talent shortages
or assume to face them

In light of this background, companies have found it essential to look for solutions to the shortage of technical hands. These companies may opt for a software house cooperation model or work with a freelancer. In other cases, these companies may instead employ directly. The coming sections delve into a detailed explanation of these three models.

5.1. SOFTWARE HOUSE



A software house is a cooperation model where a company provides consumer-based software upon request by its client. In essence, the company is all about attending to the software needs of its clients – usually another company. Software house offers round-the-clock IT solutions for other companies; they develop and allocate software upon request.

Some software houses may be geared to providing contractors to fulfil clients' requests for a commission, and others specialise in developing software that companies can sell over the counter. However, many of the software houses offer software services through experience and skills. A software house can either be a product-based company or a service-based company.

5.1.1. FEATURES OF SOFTWARE HOUSES

With an increased concentration on software services and development, companies need to meet targets while employing unique approaches through skilled and experienced developers. Unfortunately, not many developers fit into that category and companies may not have enough resources to hire the few who do. Hence many companies collaborate with software houses to get the best they can. Here are other features of software houses that make cooperation ideal for clients.

- Software houses are interested in winning the client's trust, so they build applications, scale up projects and produce excellent products.
- Many software houses employ the scrum agile approach, which improves collaboration and meets clients' needs.
- Collaboration is at the heart of software houses. The model acts as a bridge between the client and the software team.
- A software house model monitors the project and provides the needed technical expertise.
- Software houses are known for novel technologies and agile frameworks.

5.1.2. CHALLENGES OF THE SOFTWARE HOUSE COOPERATION MODEL

The features of the software house model may give it a foolproof look, but there are some challenges that the model has been unable to rid itself of. Some of these challenges include:

- Failure to minimise the project or prevent one from going sideways.
- The project's scalability is usually an issue in this model due to its scrum approach.
- Achieving projected results within set timeframes may not be accessible due to high technicalities and required expertise.
- While the model is great, finding an efficient software house may be difficult.

5.1.3. ADVANTAGES OF SOFTWARE HOUSE COOPERATION MODEL

Despite the challenges above, the software house model has some distinct advantages that may make it the ideal cooperation model for software development.

- Uniqueness is at the heart of software houses' provision of agile project solutions.
- Software houses provide expertise to corresponding industry demands. They project their knowledge and experiences unto tasks for quality services.
- Software houses typically use the agile scrum approach to improve and monitor workflow problems arising during the project.
- Software houses allow cooperation with a fixed budget. The client can control project implementation and monitor costs with verifiable invoices.
- This model eliminates recruitment processes, skill verification, training of employees and everything in between.
- Many of the developers in these houses continue to offer post-implementation support even after the project has been completed.
- Companies often have great developers with tech stacks to offer clients various options.

5.1.4. DISADVANTAGES OF SOFTWARE HOUSE

Granted that software houses may be great places for discovering a good developer, there are still certain disadvantages to watch out for, which may sometimes slow down or frustrate the project.

- There is always the risk of a hidden cost with a software house, which may sharply increase the budget.
- Intellectual property issues may arise as to the ownership of the invention in the course of software development.
- A client may find it difficult to switch software houses, especially where extensive work has been done without required tracking.
- Quality control with software houses may be challenging if the client does not contract the software house after due diligence.
- Sometimes, companies end up with a profit-oriented rather than a project-oriented software house.
- Other issues arising from cultural and communications diversity differences may stall the project unless handled effectively.

5.1.5. WHAT IS THE WORK NATURE OF DEVELOPERS

A good developer will always have specific technical documentation for the project's demands. Where the software house cannot document such work, or it does not have clear guidelines for the developers or software company, it is advisable not to contract with a software house as it can blur the lines and lead to confusion.

It is also best to have some experience outsourcing projects to a developer or at least doing adequate research before approaching a software house. Often, a non-ideal choice of software house will frustrate the project. That said, a software house is ideal in situations such as:

- Where there is a need for outsourcing to reduce costs and expenses
- Where the project is very technical and requires a high level of expertise
- Where the contracting company can adequately do management, supervision, and control
- Where there is a reasonable budget that accounts for unexpected expenses in the course of the project
- Where there is a dire need for professional and quality service delivery.

5.1.6. HOW TO GET THE DEVELOPER YOU WANT FROM SOFTWARE HOUSE.

In many cases, companies are usually at a loss as to the ideal type of software house with good developer services needed for the project. Here are a few signs to look out for when considering a software house for a good developer.

- The first thing to consider is the software house history. A glance at its portfolio will reveal previous projects and products for understanding the software house's previous projects.
- It is best to opt for a software house within a close geographic area to align time zones and cultural differences.
- A software house is only as good as its technology stack. So, the best choice would be to opt for one that has utilised modern technology on cutting-edge projects.
- A client must always contact the software house, meet the team, and explain the project's expectations before final collaboration.
- The company may engage in a candidate screening process to determine the efficiency of the developers.

There are some risks associated with the use of Software houses. For one, there is usually an increased number of programmers on a project which waters down accountability in the event of errors.

Software houses may also be vulnerable to cybercrimes. They may be unable to detect unauthorised access where there are more programmers and insufficient preventive measures. Proper vetting of the software house using adequate research mechanisms and portfolio inspection may prevent these risks. In other cases, a company should be sure to sign clear-cut contracts stating benefits and rights, including a Non-disclosure Agreement.

5.2. FREELANCER



Freelancing can also be an excellent source for finding a good developer. Unlike other companies, many small businesses and persons would instead adopt the freelancer model. This model involves contracting projects to independent professionals within a specific arrangement subject to the client's and the freelancer's agreement.

Often, the freelancer works based on a short- or medium-term contract which expires upon the execution of the project. A freelancer's activities in software development may range from building application systems to software upgrades or developing websites. Many businesses opt for this model because it accords the client with a very high level of control and supervision of the work done, and they can select persons whose skills fit into their budget range directly. The freelancing market has recently picked up, remarkably in Europe, as they represent 15% of the total labour market, equating to about 32.3 million freelancers. Here are some quick features of the freelancer model.

5.2.1. FEATURES OF THE FREELANCER COOPERATION MODEL

- Freelancers usually possess an expert, unique set of skills that distinguishes them and attracts clients.
- A company can almost always be assured of getting a good developer with freelancing as it prioritises professional experience and portfolio.
- Good developers are mostly part of a community or online forum.

5.2.2. ADVANTAGES OF THE FREELANCER MODEL

It is possible to find an excellent developer by employing freelancers' skills. While the advantages are numerous, some of the most visible are stated below.

- An advantage of the freelancer model is that it offers lower costs while providing excellent services.
- Also, unlike employees, freelancers are only paid after the work gets done, which may lead to increased productivity.
- There is always agility and flexibility with a freelancer. Where there is a need to correct errors or scale up on a particular part of the project, then their availability is uncontested.
- With the freelancer model, a client can observe quality control and issue instructions to be carried out promptly.

5.2.3. DISADVANTAGES OF THE FREELANCER COOPERATION MODEL

- Unlike the Software house model, the freelancer model lacks extensive post-implementation support.
- It may be challenging to establish professional competence, and the relevant portfolio may be doubtful.
- Freelancing is often high risk as the freelancing may go cold on the client or be unable to meet set targets.
- Sometimes, the client would have to contract a new freelancer to revamp the work, wasting time and resources.

In truth, it is difficult to find an experienced freelancer, and even when one is located, there is usually the uncertainty that such can become unavailable at any time with no contract to bind him to the company.

5.3. EMPLOYEE



The go-to mode of many companies is to hire an efficient developer to implement solutions, create new software, and take over its technical architecture. While this can seem like a relatively easy way to locate a good developer, several key steps are involved in implementing it. Indeed, the job of finding a good developer and a good employee is a tough one and maybe a tad bit difficult. Many companies would instead opt for a software house or freelancer. Still, a company able to acquire an efficient developer has a lot to gain with very little on the line, like other methods of finding a good developer. Here are some brilliant facts about the employee model of finding a good developer.

5.3.1. ADVANTAGES OF THE EMPLOYEE MODEL

- Indeed, there is the chance of greater productivity and collaboration with the employee model, thus, making for a good developer.
- There is less risk in predicting the outcome of the project
- It is also easier to correct errors, implement changes, and watch out for post-implementation complications
- The company/client may not have to deal with cultural differences and time zones changes
- This model is also suitable for the scrum agile framework for extensive productivity.

5.3.2. DISADVANTAGES OF THE EMPLOYEE MODEL

- The obvious shortcoming of this model will be the high dependence on budget allocation, as it is pretty expensive.
- Also, the company may be bound if the employee quits and moves on to another job. Often, a company will have to pay employee wages even if there is no current project.
- This model is unsuitable for all types of projects, particularly short-term development projects.
- Collaboration between team members or colleagues may sometimes be a hassle and may slow down the work pace.

5.4. TIPS ON HOW TO BEST EMPLOY A GOOD DEVELOPER



Many companies would instead go through a freelancing platform or a tested online platform to source for a good developer, after which they offer to hire such a person. However, such platforms also have their disadvantages as there can be no adequate mode of vetting these developers in many cases, although some platforms track the portfolio and previous projects of the Developer.

Another tip is to inquire from those who have been in the game for a while. Thus, it would be wise to ask for recommendations from other companies that have employed excellent developers in the past or present. More importantly, a company searching for a good developer must be sure to sell itself and policies to attract top quality value as many good developers focus on profit-based experience and project-based experiences. In many instances, it is always advisable for a company to opt for a freelancer where budget cuts or other extraneous factors constrain it.

5.5. PERMANENT EMPLOYMENT VERSUS SELF-EMPLOYMENT BY COUNTRY

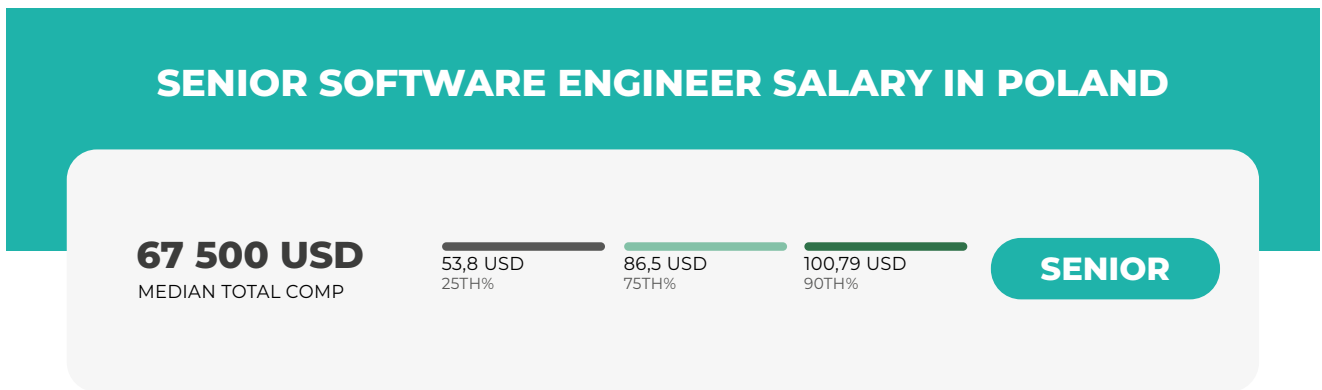
COUNTRY	PERMANENT EMPLOYMENT (CALCULATED FOR 1000 EUR GROSS PER MONTH) - TOTAL MONTHLY COST FOR EMPLOYER IN EUR	SELF-EMPLOYMENT TAX	PERSONAL INCOME TAX
Serbia	1161,50	10%	10%
Slovenia	1257,30	15,5%	16%
Albania	1167,00	15%	-
Montenegro	1066,70	9% to 15%	9% to 15%
Bosnia and Herzegovina	1105,00	10%	10%
Croatia	1165,00	20%	20%
Estonia	1338,00	20%	20%
Latvia	1235,90	20% to 31%	20% to 31%
Lithuania	1019,75	15%	20%
Belarus	1346,00	20%	-
Bulgaria	1309,20	10%	10%
Czechia	1338,00	15% to 23%	15% to 23%
Greece	1222,90	9% to 44%	9% to 44%
Hungary	1130,00	15%	15%
Moldova	1240,00	12%	12%
Poland	1236,10	12% to 32%	12% to 32%
Romania	1022,50	10%	10%
Slovakia	1352,00	15%	19 to 25%
Turkey	1225,00	15% to 35%	15% to 44%
Ukraine	1220,00	5%	18%

5.6. CANDIDATES ASKING SALARIES AND NEGOTIATION STRATEGY TIPS

Negotiation strategy might differ depending on number of factors:

- When was the last salary raise? Has anything special happened since then?
- Current geopolitical situation in a employee's country
- How long he/she is already in your company
- Is that critical person in a project/company? Is he/she easy to replace with a new hire?
- What kind of employee is he/she? Does he/she deliver? Is that a good resource?

First of all you want to familiarise yourself with the current market's situation so that you can assess how much other companies pay to people at similar level. If you want to have a rough overview of these ranges you can start from checking levels.fyi website which gathers data points from engineers all over the world to present aggregated info about salaries in software engineering field.



Source: <https://www.levels.fyi/t/software-engineer/levels/senior/locations/poland>

Then the next step is to research positions offered by your competition either on one of job boards or directly on their website. That will give you a good grasp of where the market is heading and what expectations are reasonable.

If you are already a bigger and established company (>35-50 people) you might already have some specified levels of seniority in your company so salary ranges are predetermined and in that case the objective of interview process is to determine what is the candidate's level and then you simply know what is your room for negotiation.

APPLE	MICROSOFT	FACEBOOK	GOOGLE	AMAZON	
ICT2 Junior Software Engineer	SDE 59	E3	L3 SWE II	SDE I L4	
ICT3 Software Engineer	60		E4	L4 SWE III	SDE II L5
	SDE II 61	E5		L5 Senior SWE	SDE III L6 Senior SDE
ICT4 Senior Software Engineer	62		E6	L6 Staff SWE	
	Senior SDE 63	E7		L7 Senior Staff SWE	Principal SDE L7
ICT5	64		E8	L8 Principal Engineer	Senior Principal SDE L8
	Principal SDE 65	E9		L9 Distinguished Engineer	Distinguished Engineer L10
	66			L10 Google Fellow	
67					
ICT6	Partner 68				
	69				
Distinguished Engineer	70				
Senior Distinguished Engineer	Distinguished Engineer				
Engineering Fellow	80				
	Technical Fellow				

Source:

<https://www.levels.fyi/?compare=Apple,Microsoft,Facebook,Google,Amazon&track=Software%20Engineer>

It is important to also take into consideration the location of the given person. Salary might differ for a Software Engineer with the same skill set in Poland and in Ukraine.

Then there are different options on your hand depending on what type of company you are and what you want to achieve.

SALARY COMPONENT	COMMENTS
Base Salary	<p>Most probably the developer works on a B2B contract. If he/she looks for stability you can propose a constant monthly salary with PTO (basically employment contract in disguise).</p> <p>If a developer looks for a higher rate you can have him on a higher hourly rate without any extra perks (pure contractor). You can negotiate some bench money for him if workload falls under a certain number of hours threshold in a month.</p>
Annual Performance Bonus	<p>Certain companies provide an annual bonus structure that is tied to performance. This bonus can be determined solely based on the company's overall performance, including revenue and other established goals, or it can be a combination of both company and individual employee performance, with the latter being the more prevalent format.</p> <p>Good mean to keep developer tied longer to your company.</p>

SALARY COMPONENT	COMMENTS
Equity	<p>If you are a startup or pre-IPO company then it might be also interesting to resort to offer stocks in your company. Since the company has not gone public yet, instead of granting official shares, you can give the option to purchase a specific number of shares at a predetermined price known as the "strike price." Typically, the strike price is set at a lower value compared to the anticipated price at the time of the initial public offering (IPO).</p> <p>With either type of equity comes a "vesting schedule." This is the time frame within which the company will pay out your equity to you. Typically it's 4-5 years.</p>
Sign-On Bonus	<p>Due to the high demand for software developers, particularly those with extensive experience or specialised skills, companies often provide signing bonuses as an additional incentive. Although not guaranteed as part of the initial offer, signing bonuses can be negotiated upon request.</p> <p>Remember to incorporate clawback policy in your offer letter so if your candidate leaves your company before a specified period of time he/she has to pay back the whole bonus amount or a prorated amount.</p>
Paid time off (PTO)	<p>You can increase the number of PTO days, which can be useful if a person is a keen traveller or you know that they use PTOs a lot throughout the year.</p>
Other perks (health insurance coverage, retirement plan, sports cards, certifications)	<p>These can be useful leverage especially for more junior people where you can compensate for a lower base salary with some perks like a sports card or medical packages.</p>

If a candidate is negotiating salary over an email I strongly recommend jumping on a call - it's easier to build rapport over a call than email.

If a candidate is asking for a much higher salary stating that he/she already got an offer from our competition, ask for a company's name and proof of such an offer. Very often it is just a negotiation trick to press you to pay more than you want.

Other red flags that might occur during when negotiation:

- Candidate has accepted an offer and comes back with counter offer stating he/she just got a better offer
- Candidate is counter offering your offer multiple times testing your limits - it's not a Shark Tank episode!
- Employee mentioning others earning more than him/her, threatening you that they will leave if you don't fulfil their wishes

5.7. HOW TO READ CANDIDATE'S CV - TIPS AND TRICKS

1. CHECK CANDIDATE'S EDUCATIONAL BACKGROUND

Evaluate the candidate's educational qualifications, including their degree, university, and relevant coursework (if they apply for a junior position you might look for courses connected with algorithms and software engineering so they are aware of things like design patterns and basic programmatic concepts). While experience often holds more weight in software engineering roles, a strong educational background can still be valuable, especially for junior candidates or those with limited work experience.

I would also advise something contradictory that is disseminated on various media platforms these days. Check if the candidate has actually a degree from Computer Science or similar field from a good university (check "List of top universities educating developers" section in this whitepaper). There is plenty of fish in the sea - no need to accept candidates from average universities or having non-relevant degrees. I know there might be some good candidates that switched to IT over the course of their careers but let's be honest - it's hard to beat numerous hours spent on solving non-trivial problems and being exposed to a number of different technologies and concepts during engineering studies. You have a choice so make the best use of that.

Having somebody finish quite challenging and demanding engineering studies indicates technical proficiency, problem-solving skills, analytical mindset, commitment, teamwork, and adaptability. It showcases the person's ability to tackle complex problems, think critically, and apply theoretical knowledge. Completion of the degree suggests dedication, collaboration, attention to detail, and adherence to ethical and professional standards.

2. FREQUENT MOVEMENT BETWEEN JOBS

Although job hopping is increasingly common and can be viewed as a characteristic of an ambitious professional, frequent transitions between employers within a short timeframe may imply a lack of commitment. It is advisable to exercise caution when considering candidates with a history of job hopping, as investing significant time and effort in the hiring process only to have them leave soon after starting can lead to substantial frustration and disappointment.

Sometimes people get unlucky - budget cuts, company reorganisations, project's scope changes etc. It might be good to directly ask a candidate during an interview about changing jobs so frequently (especially if he/she is a regular employee not a contractor). In the end you don't want to have more headaches in the future, you want to have your hiring needs sorted out and then have a performing employee that you can count on for a substantial amount of time. Not somebody that has a strong cash drive and will always look for this next great opportunity where they pay 5\$ more per hour. "If people come for money, they will leave for money".

3. STATIC CAREER

Although it may appear contradictory to the previous point, a stagnant career path can also be a cause for concern. If a candidate's CV shows no growth in responsibilities or advancements within a role, it could indicate a lack of enthusiasm for career development.

That can be the sort of person that comes to work and just does whatever they are told to do. It might be just OK but in the long term you want to surround yourself with people who can speak up and contribute to your organisation. Not just passively waiting for tasks to be assigned to them and waiting for calling a day. You need independent people that have at least a mediocre appetite to grow and develop themselves, especially in the IT industry that is an ever changing industry with new technologies and frameworks popping up every week.

4. CHECK CANDIDATE'S LINKEDIN PROFILE

Majority of recruiters use LinkedIn to further explore candidates' profiles. Checking their LinkedIn presence offers valuable insights into applicants. Even their behaviour on the platform, such as the posts they engage with, the individuals or organisations they follow, can provide a glimpse into their character.

Another thing might be double checking their experience. People tend to brush up their CVs so it's better catered to specific job offers or organisation's needs. Sometimes even experience presented on their CV and on LinkedIn profile does not match. Candidate has e.g. 3 years experience in Python in the sent resume and then if you check his/her LinkedIn profile it might state that it was just 2 years of relevant experience. If somebody wants to trick his/her way into your company you shall close the doors for such an applicant. Of course you shall always assess candidates' technical expertise during a technical interview, that is just to filter out any inconsistent candidates beforehand.

4. CV'S STYLE AND FORMAT

An initial scan of the CV can yield valuable insights about the applicant, revealing more than one might expect from an initial review. When examining resumes, it is helpful to consider general categories that provide a comprehensive overview of the candidate's profile.

First glimpse can give you actually much information about a given candidate. If I see unnecessary gaps between sections, random colours, spelling or grammar mistakes it seriously raises red flags as that depicts that a person is quite chaotic, does not produce quality outputs and is lacking a structure. Using wrong technologies' or companies' names also is a food for thought - e.g. people putting Salesforce instead of Salesforce. I would assume if somebody is dealing with a given software for 3-4 years he/she shall be acquainted enough with software he/she deals with on a daily basis.

5. STATIC CAREER

Although it may appear contradictory to the previous point, a stagnant career path can also be a cause for concern. If a candidate's CV shows no growth in responsibilities or advancements within a role, it could indicate a lack of enthusiasm for career development.

That can be the sort of person that comes to work and just does whatever they are told to do. It might be just OK but in the long term you want to surround yourself with people who can speak up and contribute to your organisation. Not just passively waiting for tasks to be assigned to them and waiting for calling a day. You need independent people that have at least a mediocre appetite to grow and develop themselves, especially in the IT industry that is an ever changing industry with new technologies and frameworks popping up every week.

6. PROJECT'S POSITION AND RESPONSIBILITIES

Some candidates under the umbrella of the company they were working for, put a list of different tasks and responsibilities they have done. It might be good to clarify how long they really hold such responsibilities and what tasks exactly they did. Sometimes people put fancy words and positions to convey their seniority and in the end it might be that they did some tasks for a short span of time or the person is Senior Developer according to their previous employer but not really meeting seniority standards in our company. During interview you can ask:

- How much practical, professional experience do you have?
- What exactly did you do in your most recent role?

Another thing is having a big list of different technologies and frameworks - be careful, a person can have used some library in one of their tasks but it does not mean he/she is an expert in that.

7. CERTIFICATES

Employers generally value programming certificates, although they are not typically a mandatory requirement for candidates. As a recruiter, it is important to exercise caution when relying solely on certificates to assess Java programming skills, as they do not guarantee the developer's abilities.

Frequently, we encounter situations where highly experienced programmers struggle to pass certification exams, while weaker programmers perform well on such exams. Why does this occur? The reason is that these certificates often focus on theoretical knowledge rather than practical skills. They typically require memorising information that an experienced developer would easily locate in documentation or be able to verify independently.

5.8. ASSESSMENT CRITERIA FOR SOFTWARE DEVELOPERS

CRITERIA	DESCRIPTION	HOW IMPORTANT IS IT?	HOW TO CHECK?
INDEPENDENCE	He is able to independently carry out the tasks he has received	CRUCIAL	<p>Ask about past experiences: Inquire about specific projects or tasks the candidate has worked on independently in their previous roles.</p> <p>Request details about their responsibilities, decision-making authority, and the level of autonomy they had during those projects.</p>
QUALITY	How often the implemented solutions do not require corrections and work reliably	CRUCIAL	<p>Check their CV carefully - are there any typos/mistakes?</p> <ul style="list-style-type: none"> How do you ensure code quality, maintainability, and scalability in your projects? What software development practices or methodologies do you follow? Can you describe your approach to writing clean, efficient, and reusable code?
WILLINGNESS TO IMPROVE/DEVELOP	A person shows a desire to learn, develop. He also implements it on his own and is not afraid to take on new challenges. Open to new ideas, technologies, challenges	CRUCIAL	<p>Pay attention to courses and certifications that they followed (on CV), what their career trajectory is and why they changed jobs (e.g. was it for more money or was it to get more responsibility/grow/learn more)</p> <ul style="list-style-type: none"> How do you stay updated with new technologies and industry trends? Can you share an example of a time when you had to quickly learn a new technology or framework for a project? How do you handle changes or unexpected obstacles during a development process?

CRITERIA	DESCRIPTION	HOW IMPORTANT IS IT?	HOW TO CHECK?
COMMUNICATION	He/she can communicate clearly and clearly. He/she can listen, analyse and respond. He/she makes statements concisely	VERY IMPORTANT	You can only test this during the interview and hiring process. <ul style="list-style-type: none"> Do they answer exactly the question that you asked or do they deviate? Do they listen well or do they cut you off? Do they engage in conversation? Is there a comfortable atmosphere in the room or an awkward one? Are they polite, observant?
PLANNING HIMSELF/HERSELF WORK	He/she is able to conduct business analytics, specify ambiguities to be clarified, write out the method of implementation taking into account risks, valuation time and requirements.	VERY IMPORTANT	Pay attention to how they introduce themselves at the beginning: is this clear and structured or more of a messy introduction? Assess the candidate's ability to manage their time, set priorities, and stay organized without constant guidance. Inquire about their strategies for planning and executing tasks independently to meet project deadlines.
RESPONSIVENESS	Time to response, reply	IMPORTANT	Check with your recruiter, how is their communication during the recruitment process. And of course pay close attention during the interviews.

5.9. TEMPLATE INTERVIEW QUESTIONS AND CONVERSATION FLOW

In fact you want to have a well rounded developer that can tackle technical challenges quickly and can communicate effectively so you can remove any roadblocks pretty fast and move forward in a steady pace without any bigger issues.

First of all you want to check on soft skills. I would not settle for much less here even though it is often considered that software engineers don't need to have much brushed up soft skills. You don't want to have a team member that cannot communicate and all and you always have to apply pull communication so it sometimes resembles an interrogation at a police station. You want to have a team member that can communicate any issues and provide relevant information just in time without a need to inquire for an update all the time. He/she shall be well developed socially and proactive so it's not draining your energy when you have to interact with such energyless ghosts.

In soft skill interview it is worth to ask:

WHAT DO YOU DO OUTSIDE OF WORK, WHAT ARE YOUR HOBBIES?

there are cases when it makes sense when somebody replies with "my job" but let's face it - you don't want to have somebody that is in a job 24/7 and does not know anything about work-life balance. Also some people just respond like that so they think they look smart and hard working when interviewing. For me it's a sign that somebody is not very creative and just wants to be safe in their answers, meaning later during the work he/she might act the same - a little bit passively.

WHAT IS YOUR GREATEST ACCOMPLISHMENT IN WORK? WHAT ARE YOU MOST PROUD OF PROFESSIONALLY?

If somebody replies I passed a certificate you can be pretty sure there is nothing spectacular there, just mundane work or somebody has pretty low self esteem

WHAT DO YOU EXPECT FROM YOUR MANAGER?

good to see what the candidate's expectations are and what he/she considers a good working environment. If somebody says "help" you might need to drill down on whether a candidate expects that manager will solve his/her problems all the time. Remember - you hire people to solve your problems not to have you baby care them

DID YOU TALK WITH THE CLIENT DIRECTLY? ARE YOU EXPERIENCED IN TALKING TO CLIENT DIRECTLY? IF NOT, WHAT DO YOU THINK WILL BE THE MOST CHALLENGING PART OF SPEAKING WITH THE CLIENTS?

even though it might not be a strict requirement for you as many developers are hidden behind business analyst and scrum masters you might want to find out how do they act or how do they perceive communication in a more official manner

In technical interview it is worth to ask:

WITH WHICH TECHNOLOGIES LISTED IN YOUR RESUME, DID YOU HAVE COMMERCIAL EXPERIENCE IN THE PAST 2 YEARS? WHAT WERE YOUR RESPONSIBILITIES? WHAT WAS YOUR BIGGEST ACHIEVEMENT?

ask more about projects, their team setup and candidate's role and responsibilities. Sometimes you get a long list of technologies and frameworks assigned to a position on a resume but when clarifying you can surprisingly find out that some framework indeed was in a project but not necessarily used by a candidate as he/she was responsible for different programming area. You can further ask what is the candidate's opinions on technologies and frameworks used. Such an open question allows a candidate to demonstrate their knowledge if they have it. You can also play devil's advocate based on their answers "But why not use framework Y for that?". Thus you can see how the candidates choose a technology, justify their choices and whether their opinions are in line with your IT teams.

CONSIDER A PROGRAMMING PROJECT DECISION THAT TURNED OUT TO BE A FAILURE. WHY DO YOU BELIEVE IT WAS A MISTAKE, AND HOW DID IT HAPPEN? COULD ANYTHING HAVE BEEN DONE DIFFERENTLY TO TRANSFORM IT INTO A SUCCESS? WHAT ACTIONS DID YOU TAKE TO ADDRESS THE SITUATION, AND WHAT VALUABLE LESSONS DID YOU LEARN FROM THIS EXPERIENCE?

That type of question will help you find out how the candidate perceives their decisions, draws conclusions and how much they learn from their previous experience.

Then you should have a round of technical questions. This depends on your role and requirements for it. In many cases online coding tests are a good idea. You can actually incorporate them in a technical screening phase before the technical interview so you can easily filter out developers that are below your bar.

During the interview final phase pay attention if a candidate has any questions to you. Very often it shows their sheer interest in your company and working culture. Again if somebody says everything is clear for me and does not have any questions it shows that they really haven't prepared themselves and you might be just another interviewer lined up for a talk this week or candidate does not really care about a company, it's just another programming gig for him/her.

5.10. SOFTWARE DEVELOPER PERSONAS AND THEIR PROFESSIONAL LIFE CYCLES

A persona is an imagined character or archetype created through the grouping of individuals. The manner in which individuals are grouped, whether based on demographics, motivations, age, behavioural patterns or goals, directly influences the nature of the persona formed. If you possess knowledge of industry-specific personas you can enjoy a distinct advantage when navigating the labour market. By understanding these personas, you can effectively navigate through a pool of prospective candidates, distinguishing those who may be suitable fits from those who may not.

VICKY - THE FRESHER

She is in her early twenties, perhaps currently employed in her first job, or maybe she is still a student pursuing a computer science degree at a technical university. Due to her limited prior work experience, Vicky is curious and inquisitive, frequently seeking answers from other colleagues and exploring the intricacies of programming. She has yet to determine her area of specialisation, whether it be front-end, back-end, mobile development or any specific technology.

Her main focus is to grow as a developer as fast as possible. Consequently, she seeks companies where leaders empower their employees and foster a supportive learning culture. If she will not be able to work on interesting projects where she can get more relevant experience she will immediately cease an opportunity to find another employer. Salary is not her primary driving force, she just wants to be among people where she can learn. She does not have a strong work ethic yet. Deadlines are somehow flexible as often some university project or some other sudden university work can pop up.

Typically she enjoys social activities, you can be sure she will be attending every single event organised by your company to network with other colleagues and simply have fun with them. As that is her first job she might not yet know how to conform to every social norm so you have to assume you might have to work on her social skills before introducing to clients' meetings.

It depends on the organisation's size whether it makes sense to employ Vicky. If you are a small software house it might be true that your senior devs simply don't have time to introduce new juniors to projects as they have too much work on their hands to delivery in a timely manner. You have to hit at least 10 developers size to introduce new junior developers without friction. Otherwise it might be frustrating for both senior developers having a feeling of "wasting their time" and Vicky who needs attention and might get upset being afraid to interrupt her more senior colleagues.

ALEX - FOCUSED CAREERIST

Alex is a professional in his mid to late twenties. He holds a Bachelor's or Master's degree in computer science or a related field. He has worked hard during the last 3-4 years gaining relevant programming experience. As a developer he already knows the ecosystem pretty well, he is highly specialised in some programming language and framework. He knows that he is good at what he does which concludes to knowing his market value which is quite high in his opinion.

He wants to tackle more and more challenging technical tasks which can prove his ever growing excellence. More and more - that's his motto. He's pretty sure he can find answers to any technical question and find a way to solve non-trivial problems. He's a geek deep in his heart and is truly passionate about technology and what is possible to achieve with it. Constantly seeking out new frameworks and programming languages, often looking for inspiration at HackerNews website.

At work he requires a high degree of autonomy and opportunities to progress in his career. Alex is a career oriented person that uses every opportunity to get new certifications that he can proudly upload to his LinkedIn profile showing off his expertise and attract new hordes of hungry recruiters that are on their eternal quest to find more talent. He would rather pursue a career as a specialist than manager. Alex is quite an introverted guy that likes to sweat his brain muscles to work on interesting projects rather than having to deal with people's nuances.

MARK - THE MONEY PURSUER

Mark is in her late 20s to mid 30s. He typically holds a Bachelor's or Master's degree in computer science or a related field. He had gained relevant experience over the years working on many international projects. Mark is a good specialist in one programming language and/or framework. However, work is not on top of his mind right now. He had recently married and now he compares different mortgage options as he would like to start a new life with his loved one in a new apartment, big enough to have kids in later years.

He is now seeking a gold pot. Whichever company can provide him better money for the same work done is winning that race. He's loyal till he gets a better offer from a recruiter at LinkedIn. Mark does not want new challenges at work or having to spend extra work hours to learn anything new in IT that can help to develop as a software engineer. He wants to do just enough and have their paycheck paid regularly. Job is not for working but for getting money. He would do whatever it takes to deliver a task but don't count on extra initiative or having him a drive to deliver better and better results.

VICTOR - THE STABLE EMPLOYEE

Victor is in his early 30s to late 30s. He is a happily married man with 2 kids. He has been in industry so long that nothing really can surprise him anymore - projects collapsing, sick deadlines, legacy technology, unrealistic expectations, non-communicative colleagues or toxic clients. He has been working with his current company for the past 3 years.

Victor likes stability and predictability in both work and private life. His family and his personal time is his top priority. In work however he is really a A player as he wants to do his job according to his high technical and ethical standards. Work helps him to stand firm and give extra sense of achievement besides his prioritised family. He does not mind working on legacy projects or with some technologies that are not cutting edge. His logic is to be well financially rewarded for his high quality work, does not matter if it's in Angular 16 or Angular 2. He would like to engage more in the social life of his company but sometimes he simply has too many tasks at home.

He's a stable and loyal employee. He would not change his workplace just because he got a 10% higher offer from a recruiter on LinkedIn. He prefers to stick to a familiar work environment as change can be costly and he has more urging issues at home.