Stack Overflow Developer Survey 2019

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OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Conclusion

EXECUTIVE SUMMARY

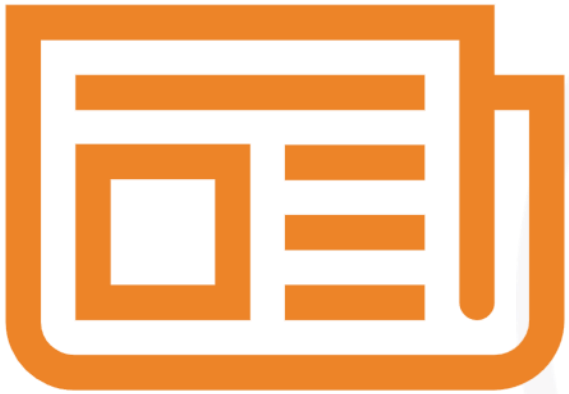
- Data presentation
- Verifying trends
- Exploratory analysis
- Methodology
  - Data gathering
  - Data analysis
  - Data visualization
- Charts overview
- Conclusion

INTRODUCTION

In this presentation, I will analyze the results of one of the most recognizable surveys in the IT industry – the Stack Overflow survey. This is an annual survey that collects data from thousands of professionals from around the world, providing valuable information on trends in employment, salaries, technical skills, and career preferences in the IT sector.

The aim of the analysis is to look at the results regarding IT employment, including aspects such as preferences related to remote work, type of work performed, and salaries in various industries. Thanks to this analysis, we will be able to better understand the current picture of the IT labor market, as well as identify key trends that may affect the career decisions of both employers and employees.

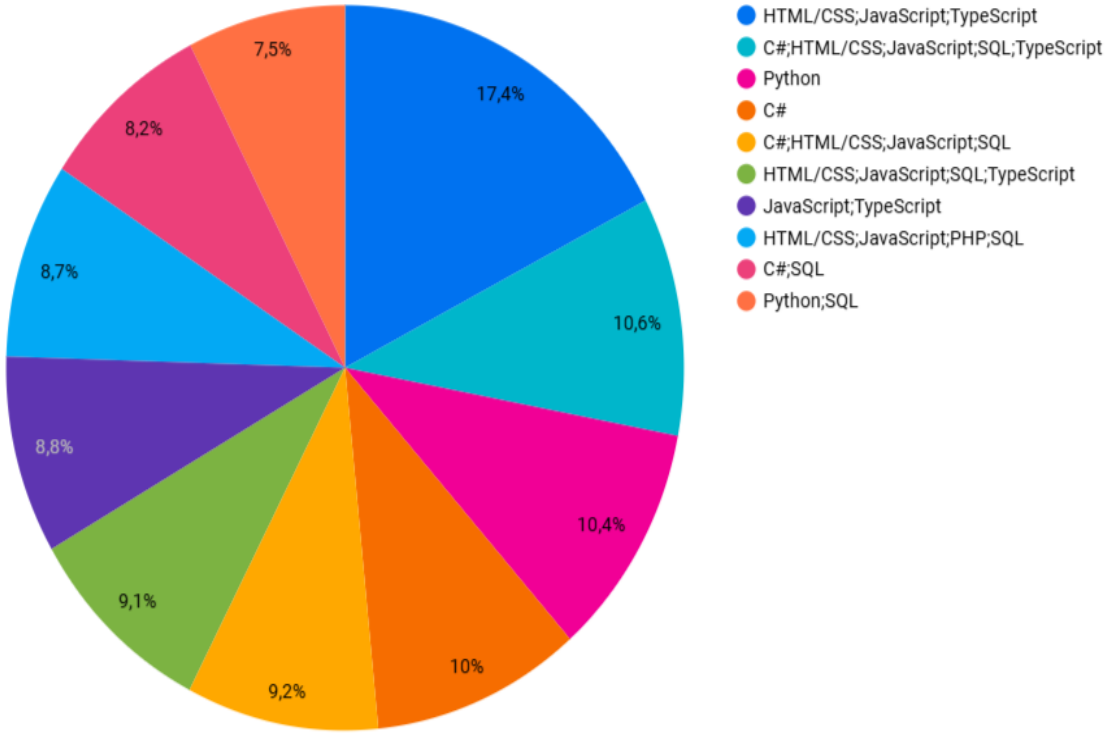
METHODOLOGY



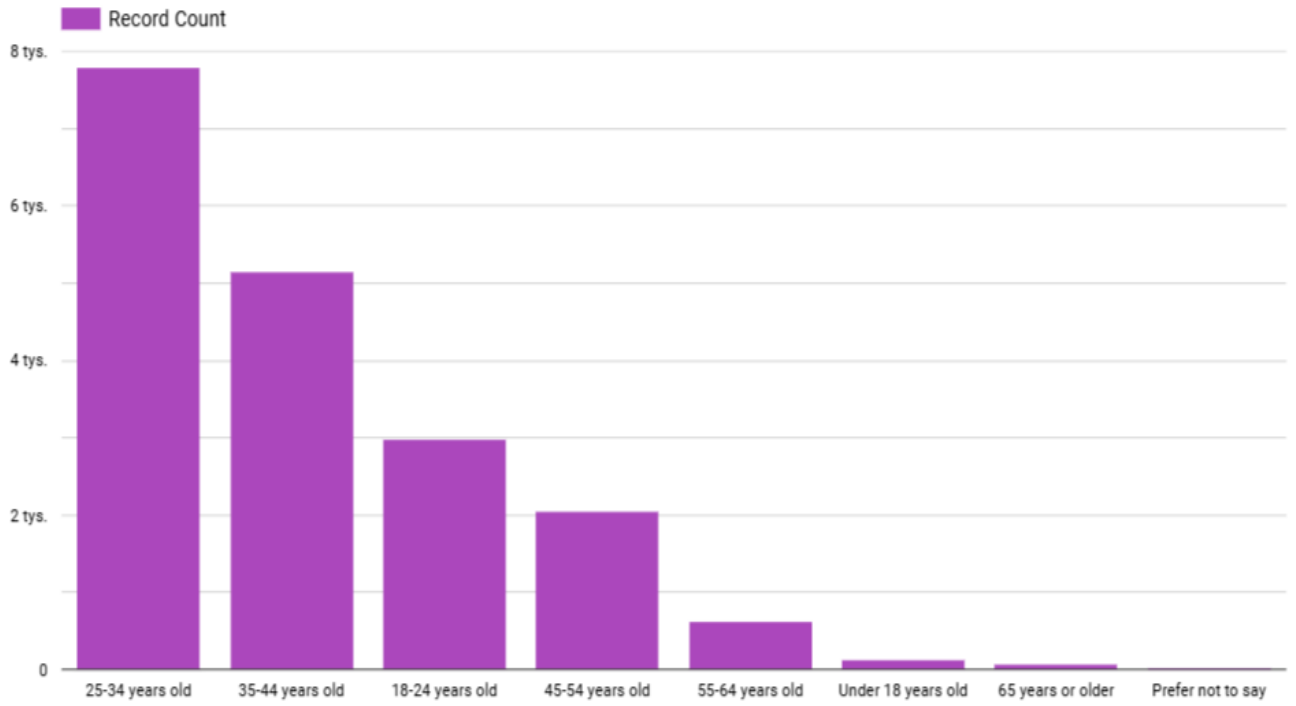
- Collect survey
- Data wrangling
- Exploratory analysis
- Verification
  - Trends verification
  - Variability verification
  - Future results verification

PROGRAMMING LANGUAGE BASIC INFORMATIONS

Record Count by: Database want to work with



Record Count by: Age



PROGRAMMING LANGUAGE BASIC INFORMATIONS

The graph on the left clearly shows that the largest percentage of people working in IT is for HTML/CSS/JavaScript.

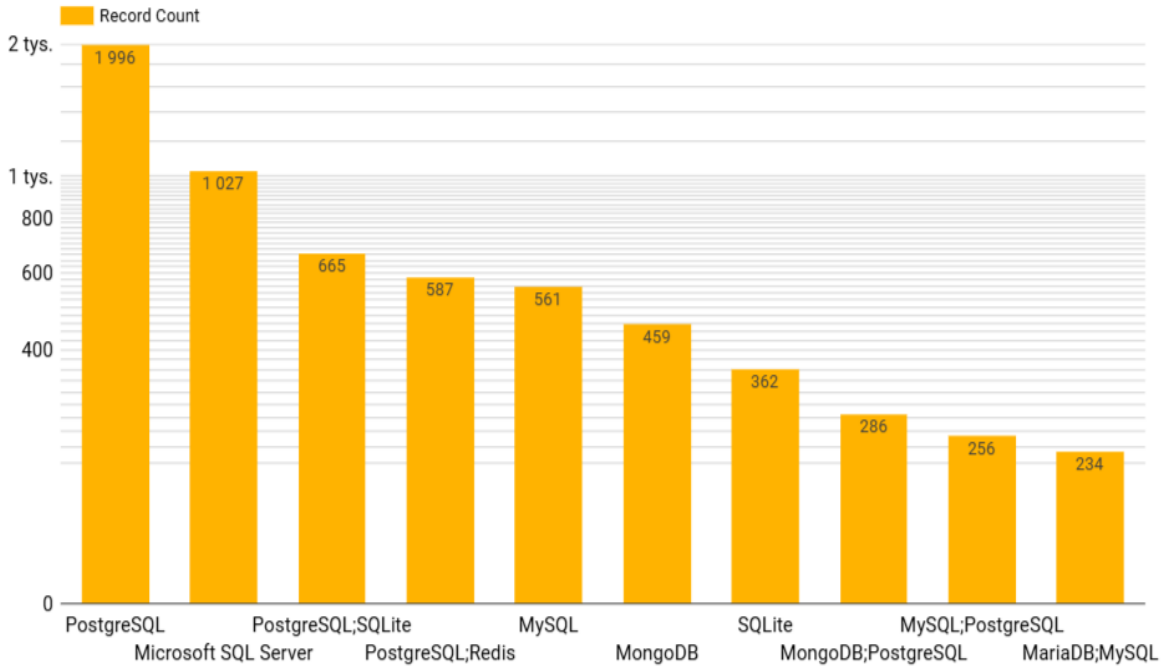
Only a single Python, C# or C#HTML is chosen as often. The least often, although the difference is small, is Python combined with SQL.

The graph on the right shows us that the largest group of respondents is aged 25-34, with the second largest group being in the 35-44 age group.

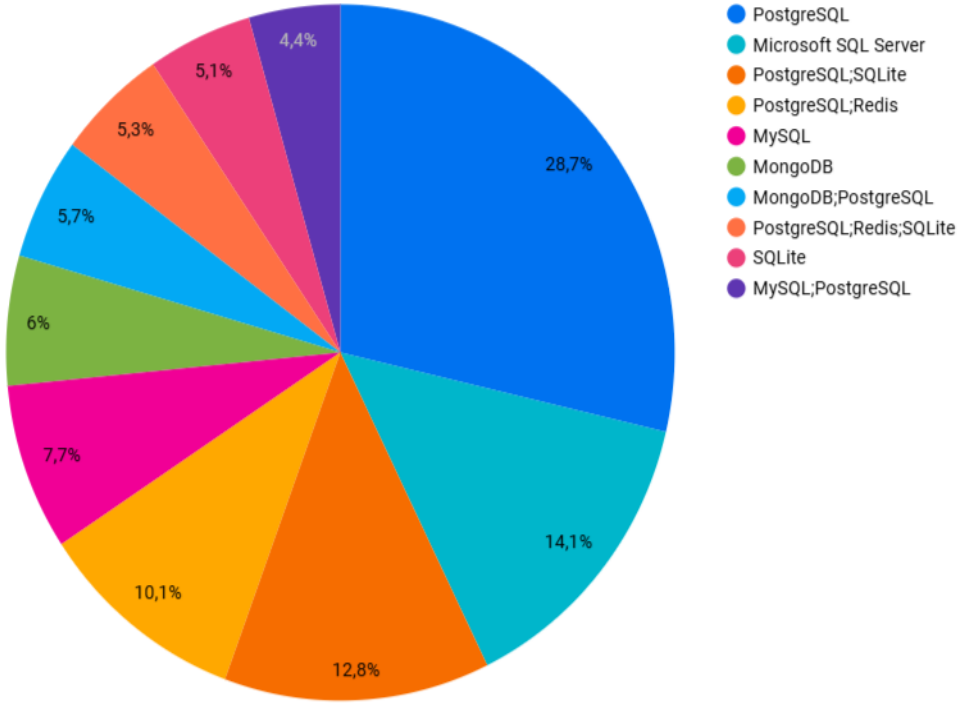
A similar percentage of respondents are very young: 18-24 or elderly: 45-54.

DATABASE BASIC INFORMATIONS

Record Count by: Database



Record Count by: Database want to work with



DATABASE BASIC INFORMATIONS

The graph on the left, showing the data on database selection, clearly shows that PostgreSQL itself is the most frequently chosen database management system.

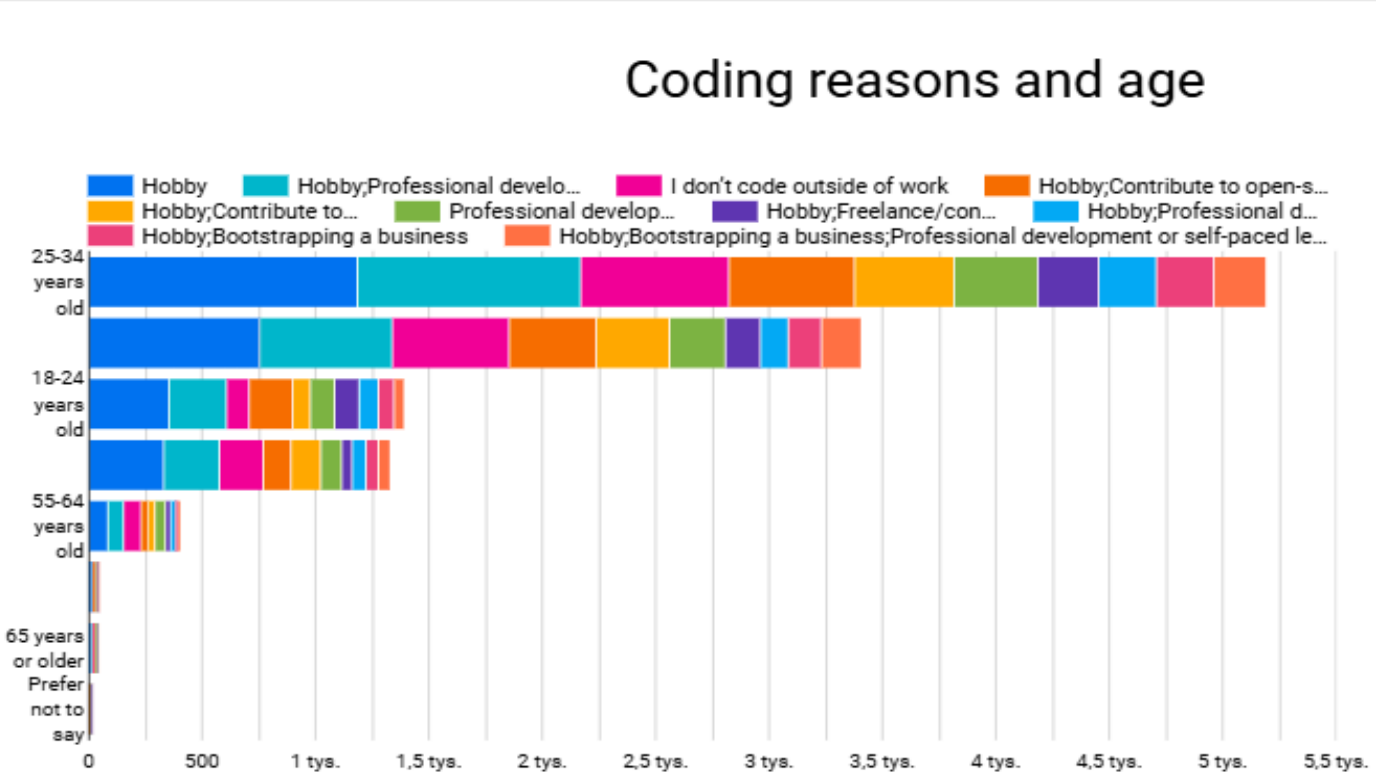
In second place is SQL server, but something that is contrary to the results of programming languages - is the fact that in the case of databases it is the other way around.

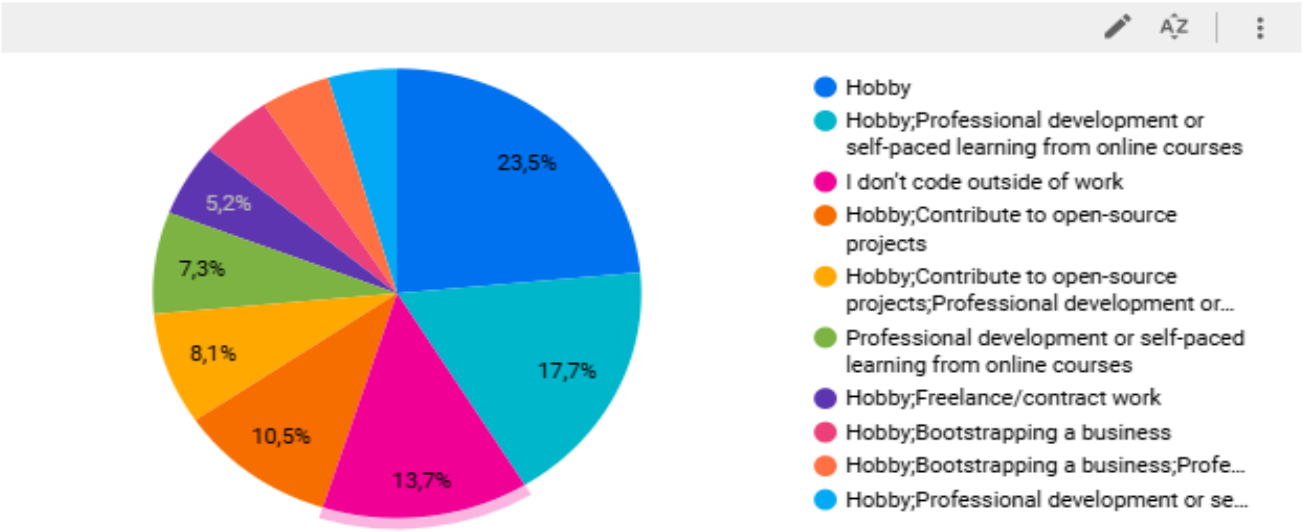
In the case of programming language, more than one system was more often chosen. In the case of databases, choosing more than one system was definitely less common.

The pie chart provides us with equally important information - which database management systems the surveyed people would decide to learn in the future.

We can clearly see that Postgre and SQL Server will still be the most frequently chosen systems, and the intentions to learn the remaining databases are distributed in more or less the same, small amounts.

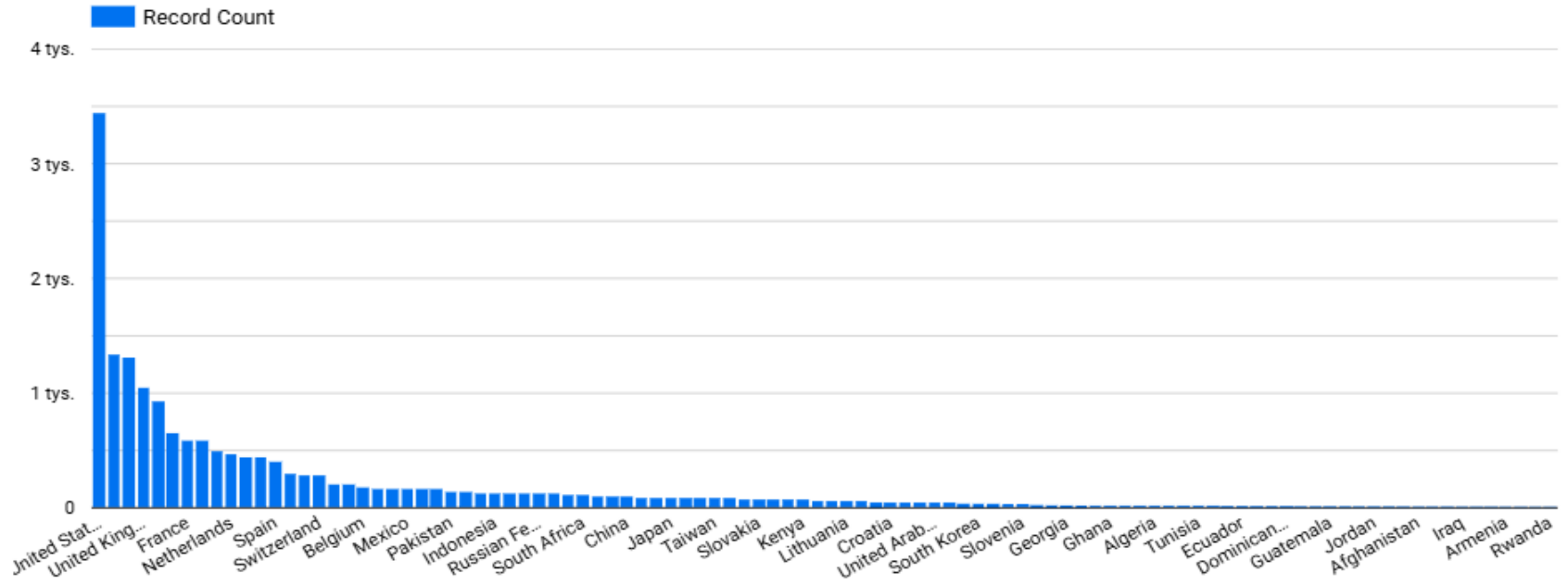
It is also worth to notice that MySQL is clearly weakening compared to the current data from the chart on the left.

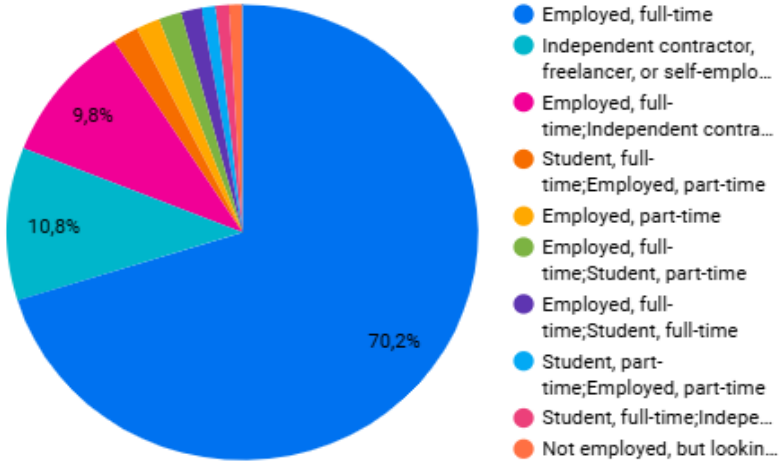


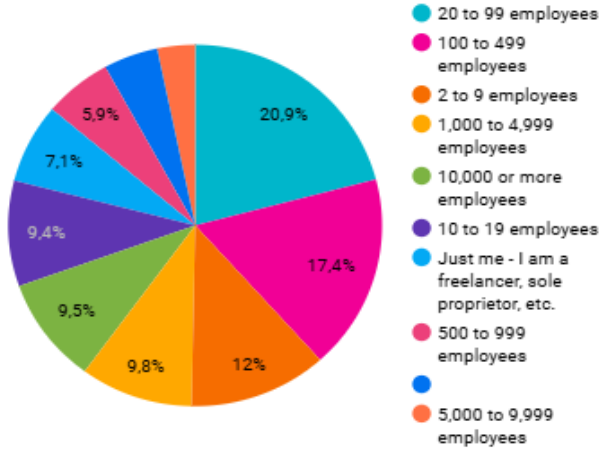


- We can see how, depending on the age of the studied people, the motives for which they decide to program differ.
- It is worth to notice how a large number of people are involved in coding only as a hobby, especially among young and middle-aged people.
- On the other hand, we have a large number of people who do not code outside of work. It looks as if some people are involved in programming only as a hobby, and others only professionally, which creates a unique harmony in the development of technology.

Country, Employment and Company size



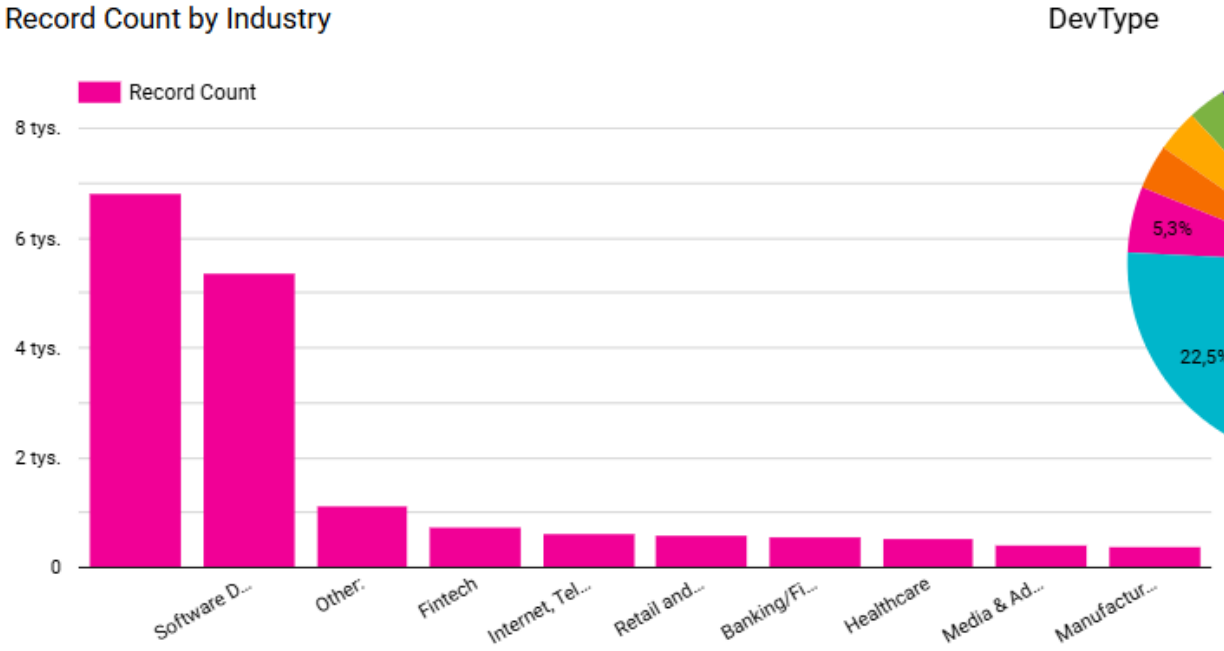


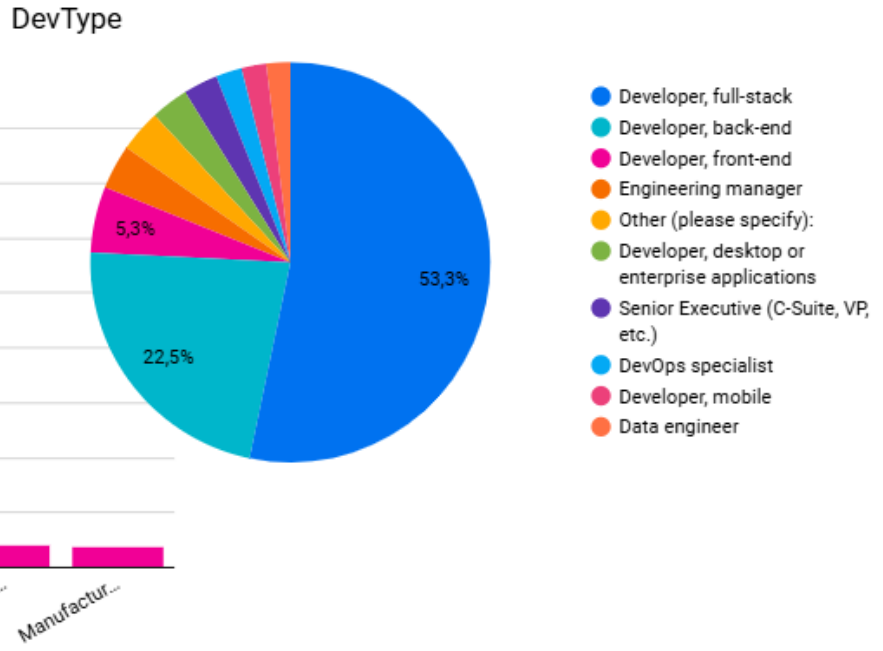


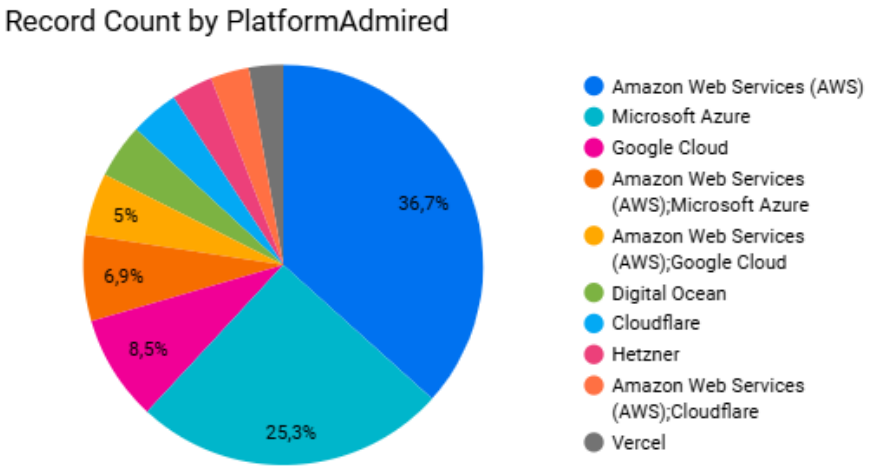
The presented graphs indicate the highest employment in the USA. Interestingly, Mexico has overtaken both Japan and China, countries that are famous for technological development, which can only be a sign of the boom of the Mexican economy.

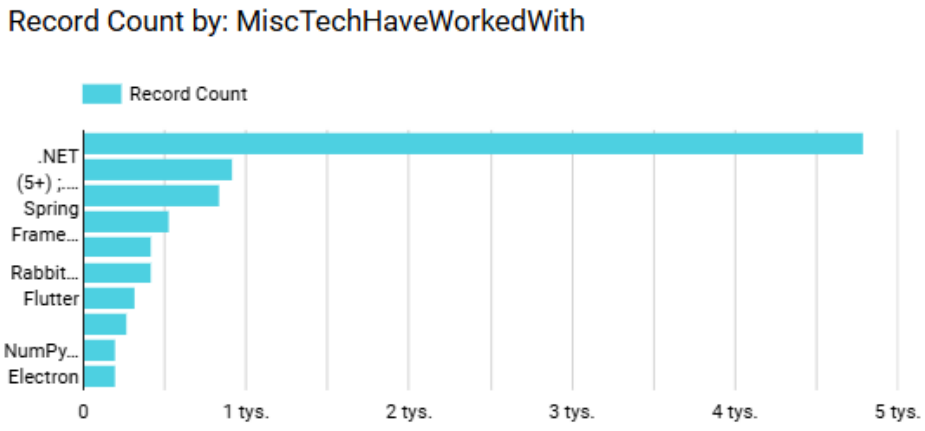
Information on the size of companies is important. IT employees are mainly found in small and medium-sized companies, which probably indicates that most specialists find employment in companies that provide IT services, performing orders for them, and are less often the exclusive property of large corporations.

Industry, Dev type, Platforms and Misc tech









An analysis of the graphs presented on this page indicates that the overwhelming majority of IT workers are involved in software development. It may be surprising how small the share falls on healthcare and media.

These results are consistent with the pie chart on the right, which directly indicates that more than half of developers work in full stack, and a little over 22.5% in back-end. This information is consistent with the pie chart in the lower left corner, which indicates that the majority of platforms used fall on Amazon and Microsoft Azure clouds.

The last graph shows Mis Tech data, and here we can clearly see how .NET dominates over other frameworks.

CONCLUSION

1. The results of the analysis may be surprising to some, the growth of the IT industry is still too short, and on the other hand too dynamic to set clear trends.
2. However, we can undoubtedly establish that Microsoft's solutions are still very popular.
3. PostgreSQL is the most frequently chosen database system.
4. The largest number of people in IT work as full-stack or back-end, in small and medium-sized companies.
5. The United States is the leader in terms of employment in the technology industry and countries such as Mexico and Pakistan are ahead of Japan and China.
6. The main branch is still software development.
7. Employees are in almost every age group, the fewest are over 50.
8. 70% of IT employees are employed full-time, another 10% are freelancers.
9. Young people often engage in programming as a hobby.
10. In the case of programming languages, specialists are more likely to know several of them, while in the case of databases, they more often specialize in only one.