Data Analyst Capstone Project: Analysis on IT sector

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OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
- Appendix

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EXECUTIVE SUMMARY

To keep a competitive advantage in the IT sector you have to be well acquainted with the technologies in the sector.

As of 2022, JavaScript and HTML/CSS were the most commonly used programming languages among software developers around the world, with more than 63.6 percent of respondents stating that they used JavaScript and just around 53 percent using HTML/CSS.

Future programming languages form the foundation of software development. As time has progressed, we've observed transformative shifts in the programming language landscape, transitioning from foundational languages such as C and Java to the popularity of Python and JavaScript.

This presentation combines the power of one of the most widely used programming languages with essential data structures and algorithm skills.

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INTRODUCTION

This presentation uses data analytics to show current and future trends in the IT sector related to programming languages. Skills needed in relation to programming languages, databases and platforms.

This presentation aims to show you

- what are the most in demand programming languages today
- What are the most in demand databases used today

People interested in this kind of information are IT professionals and anyone who is interesting in switching careers to an IT domain.

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METHODOLOGY

- Data Collection
- Web Scraping
- Exploring Data
- Data Cleaning
- Data Visualization
  - Visualizing Composition of Data
  - Visualizing Comparison of Data

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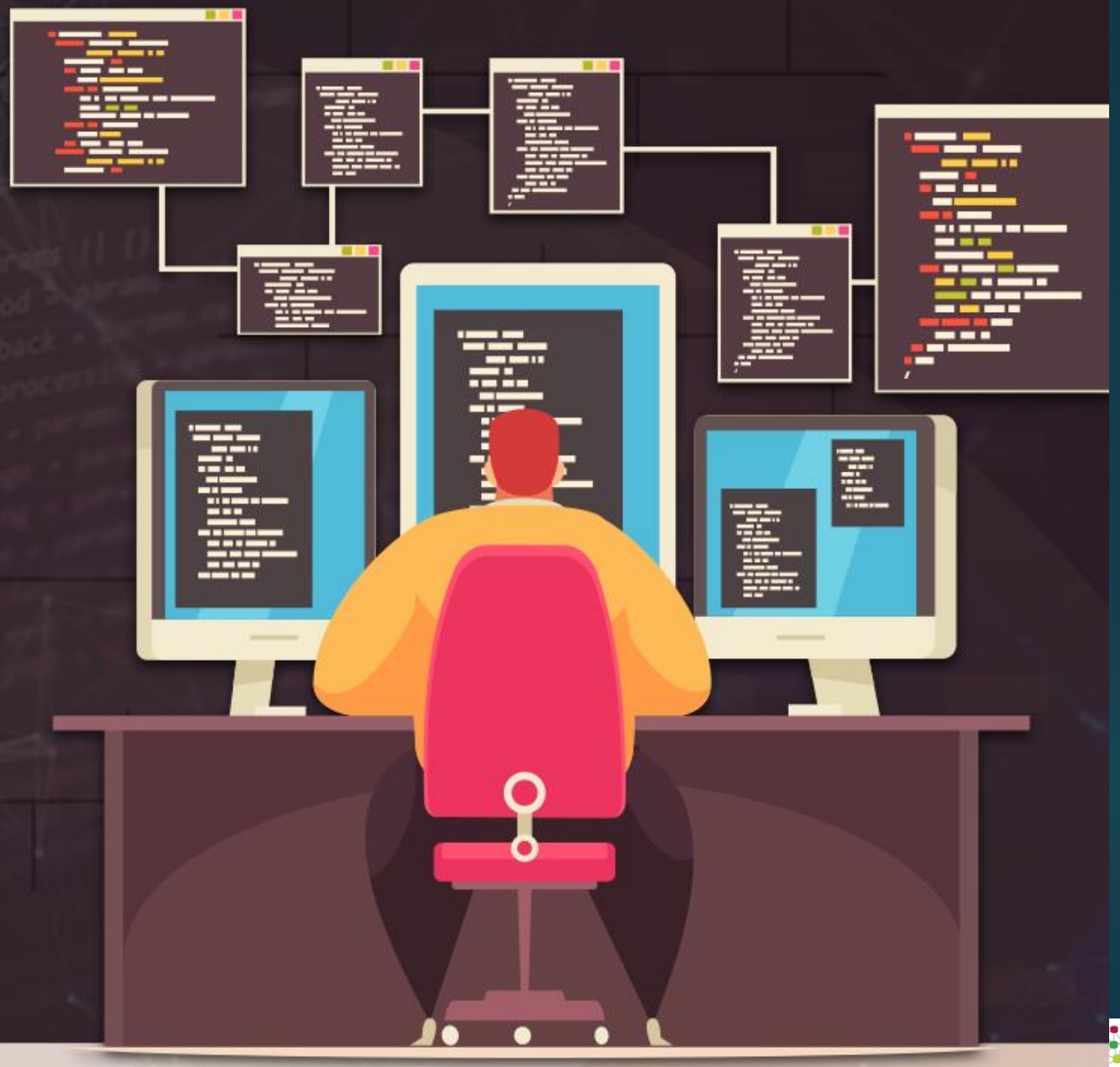
TOP 15+ FUTURE PROGRAMMING LANGUAGES 2025-2030



PROGRAMMING LANGUAGE TRENDS

Current Year

- JavaScript,
- HTML/CSS,
- SQL
- PHP
- C#

Next Year

- Python
- Typescript
- PowerShell
- Swift
- Rust

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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Java, HTML, Python, Shell, PHP are still the most in demand programming languages.
- JavaScript is the most in demand language.
- Phyton and SQL are going to be in demand in the future.

Implications

- Python is gaining more popularity due to his usage in machine learning and artificial intelligence.
- SQL is still an very demanded skill in specialist like data analyst.
- Every programming language is still in high demand.

DATABASE TRENDS

Current Year

- Microsoft SQL Server
- MySQL
- PostgreSQL
- MongoDB
- SQLite

Next Year

- MongoDB
- MySQL
- Redis
- PostgreSQL
- Elasticsearch

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DATABASE TRENDS - FINDINGS & IMPLICATIONS

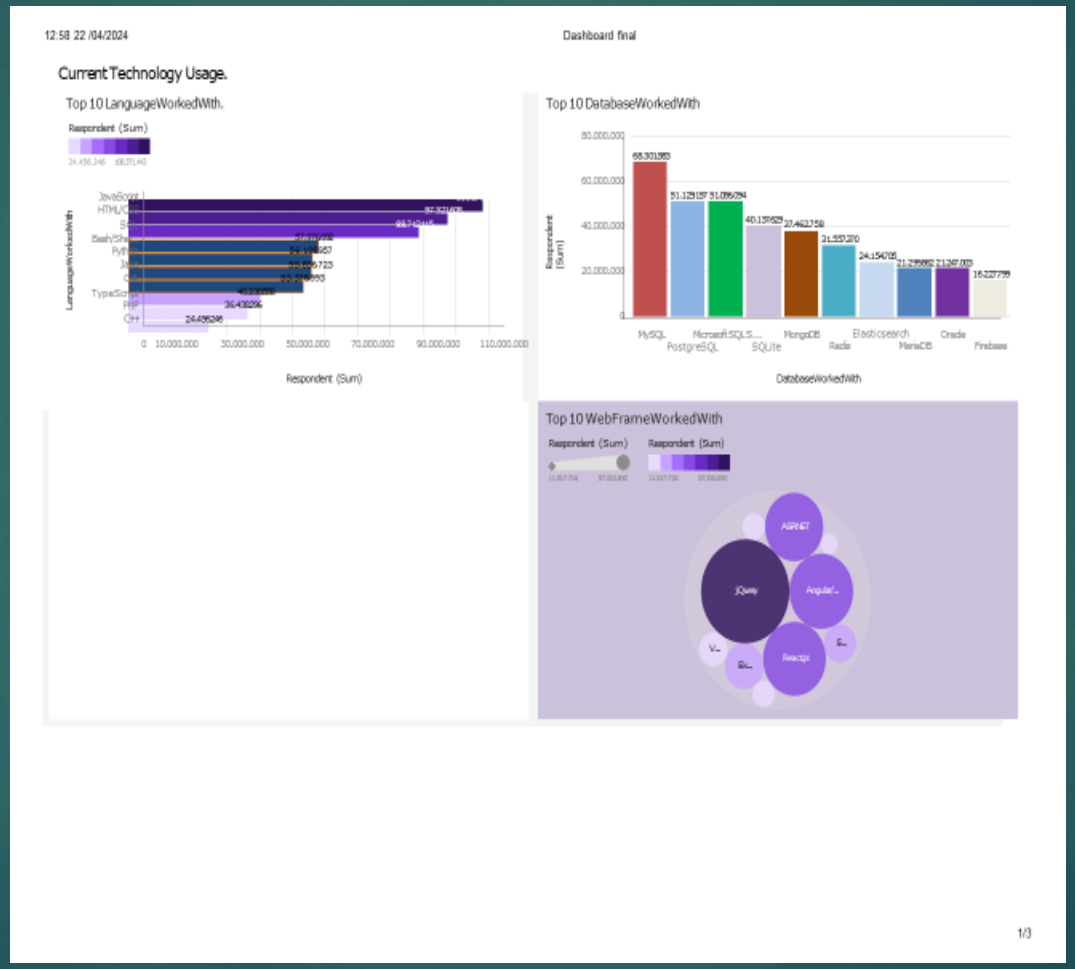
Findings

- Microsoft SQL server, MySQL ,MongoDB are the most used database at the moment.
- But Redis, PostgreSQL, MySQL Mongo DB and Elasticsearch are going to be more popular in the future.
- Skills in Elasticsearch and Redis are going to be desirable in the future.

Implications

- SQL is still the most wanted skills looked for in analysts.
- Open sources databases are still preferred.
- The demand in skills regarding databases are changing.

DASHBOARD TAB 1



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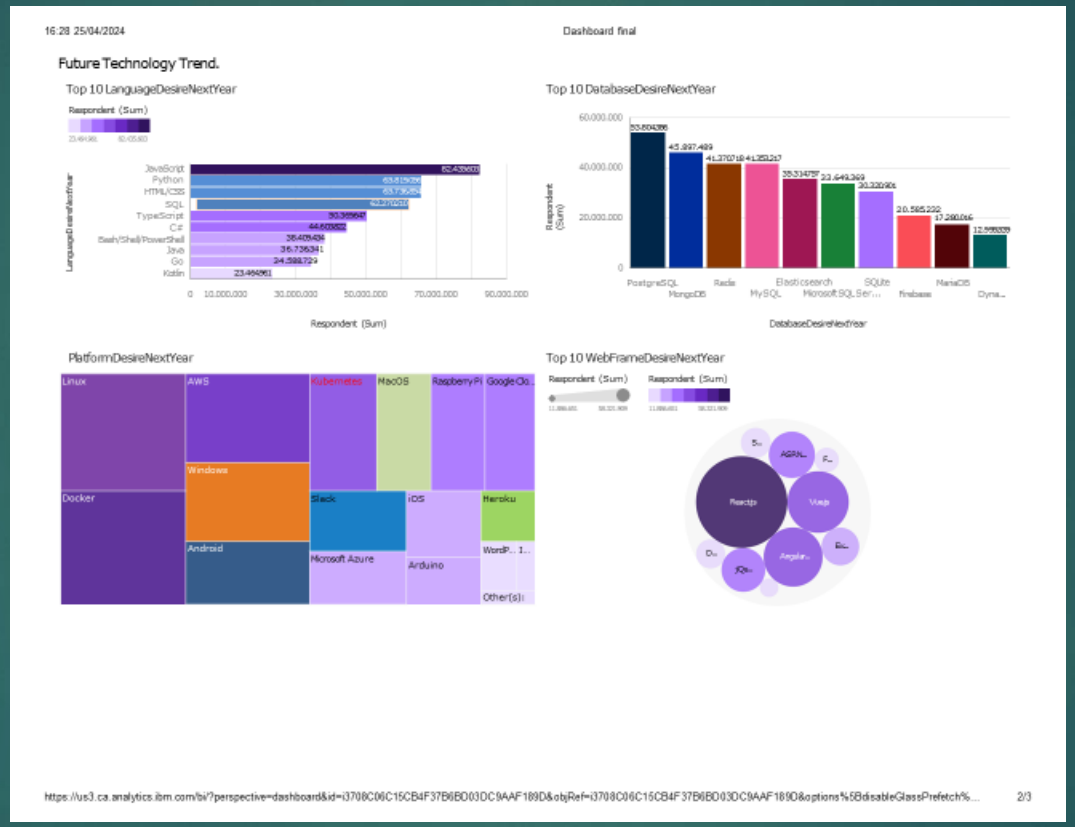
DASHBOARD TAB 2



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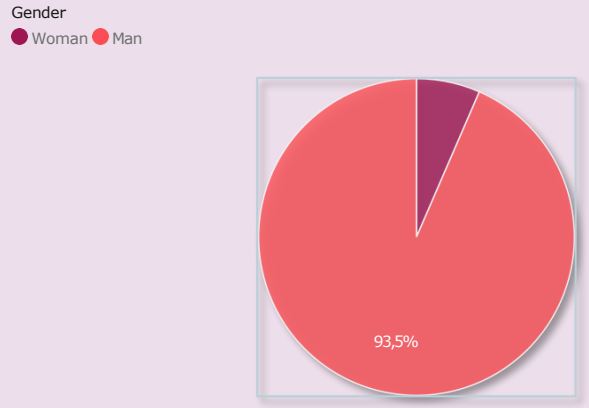
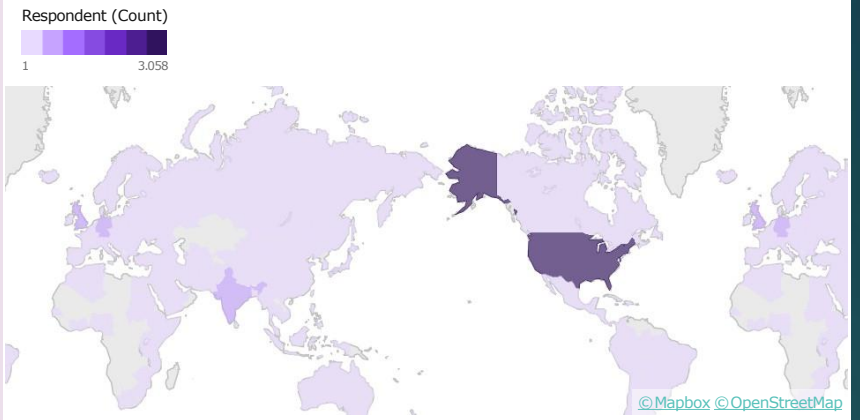
Demographics.

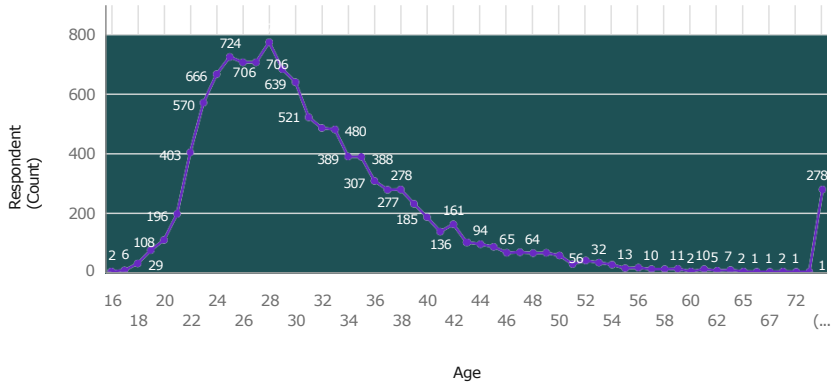
Respondent classified by Gender



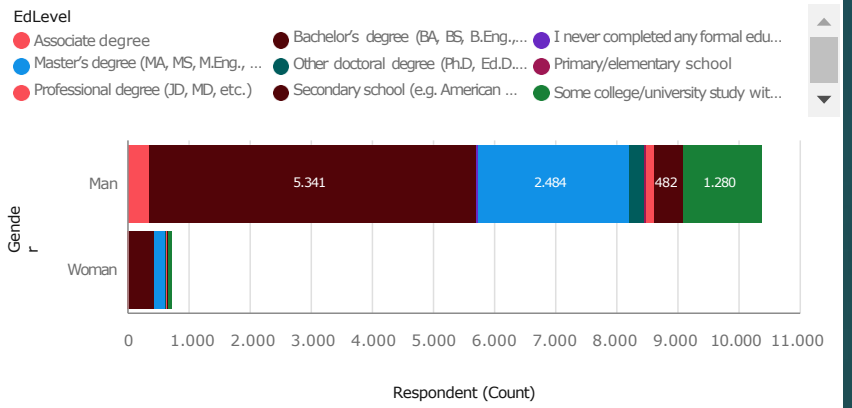
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



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DISCUSSION

- Developing new skills in the IT sector
- Increasing demand in skills related to programming languages and databases
- Solution to eliminate gender gap in the IT sector

OVERALL FINDINGS & IMPLICATIONS

Findings

- Programming languages are very popular in the IT sector
- Python and Java are the most popular programming languages
- PostgreSQL is the most popular database

Implications

- Learning new programming language increases job opportunities
- Data professionals need to become better Language programming
- Data professionals needs to learn PostgreSQL

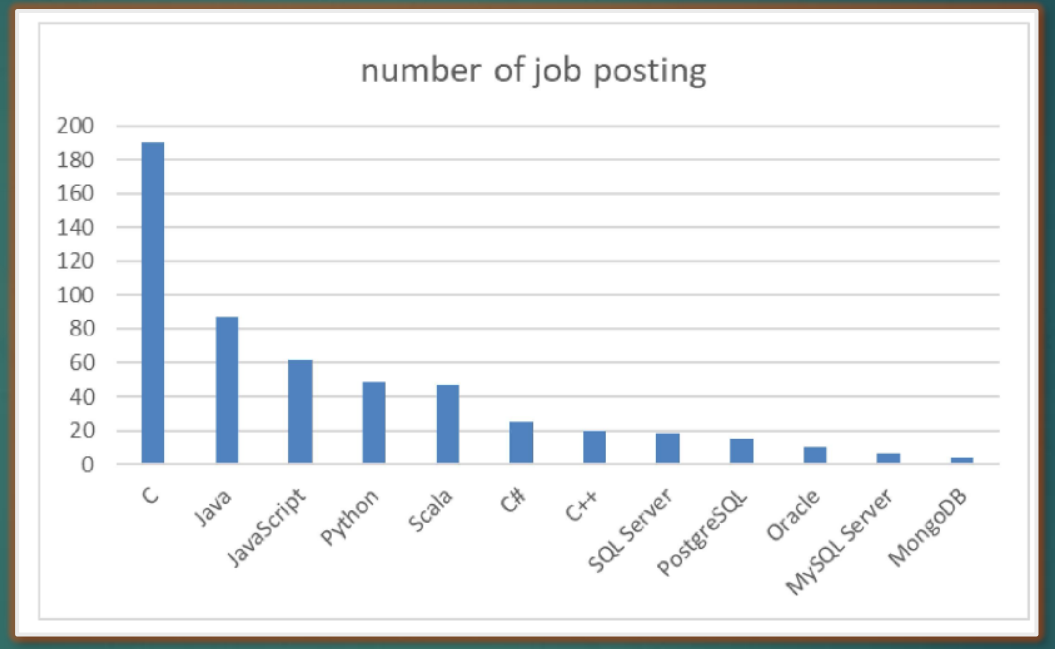
CONCLUSION

- It is important to stay relevant in the IT sector
- Becoming proficient in PostgreSQL in an important skill
- Python and Java are the most popular programming languages
- The IT industry keeps changing

APPENDIX

- Include any relevant additional charts, or tables that you may have created during the analysis phase.

JOB POSTINGS



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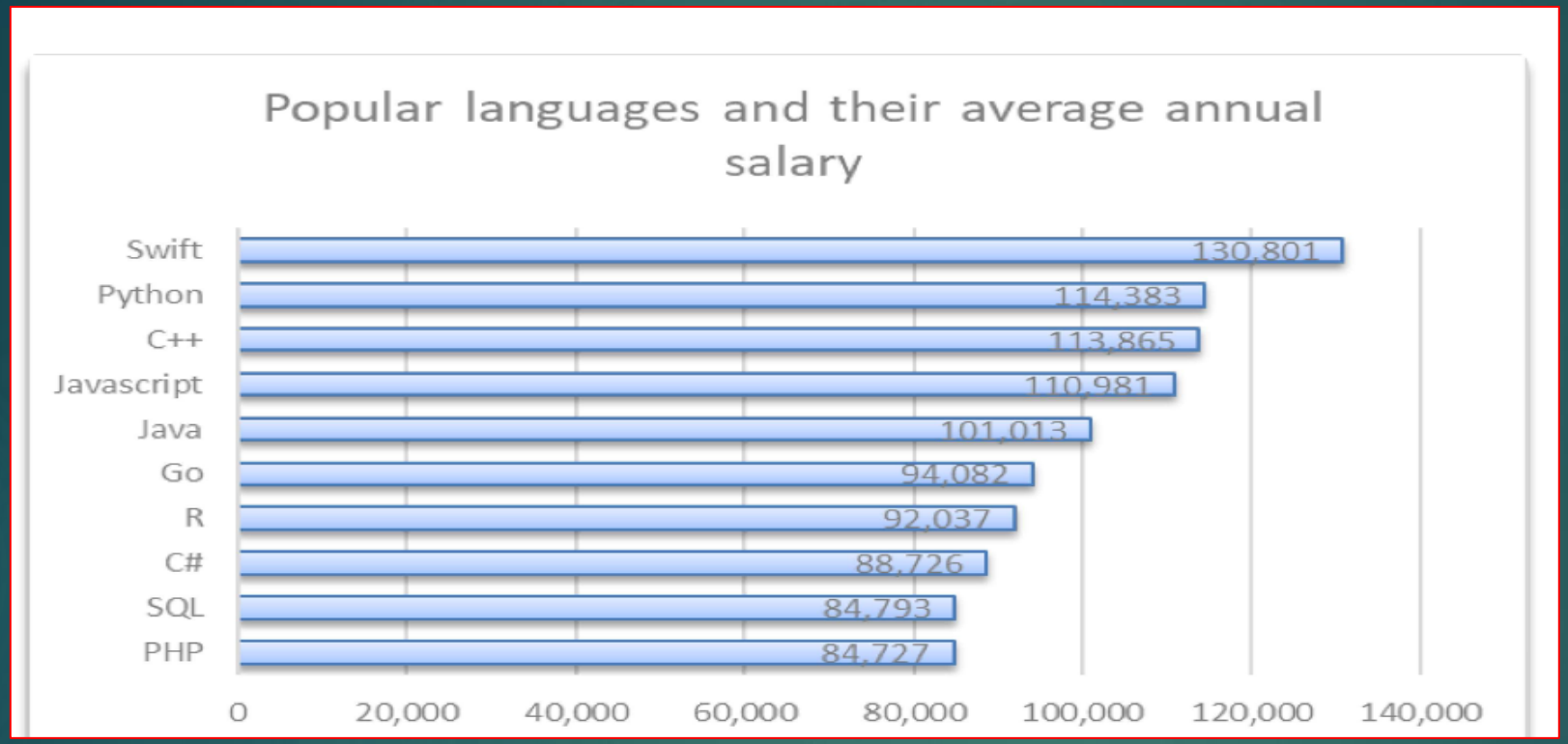
POPULAR LANGUAGES



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