



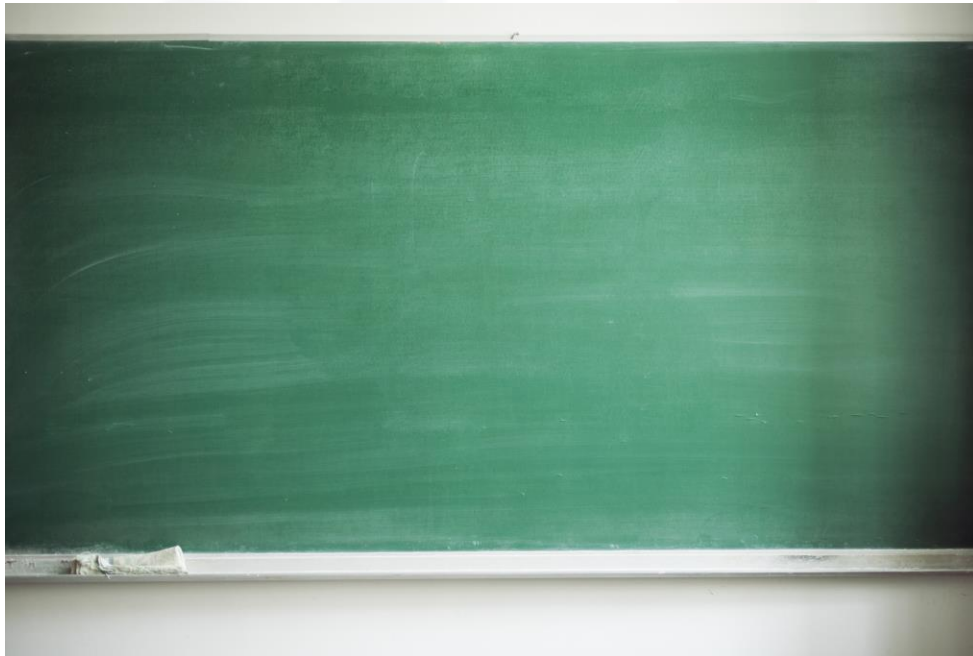
Decoding Developer Perspectives: A Comprehensive Analysis of the Stack Overflow Developer Survey 2019"

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OUTLINE



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

EXECUTIVE SUMMARY



- Analysis of the Stack Overflow Developer Survey 2019. What are the annual trends in software development industry?
- JavaScript and Python lead the programming languages race.
- PostgreSQL tends to become dominant in Databases area.
 - MySQL still on top.
- USA and India top developing contributors.
 - 30 years old men the majority of the respondents.

INTRODUCTION



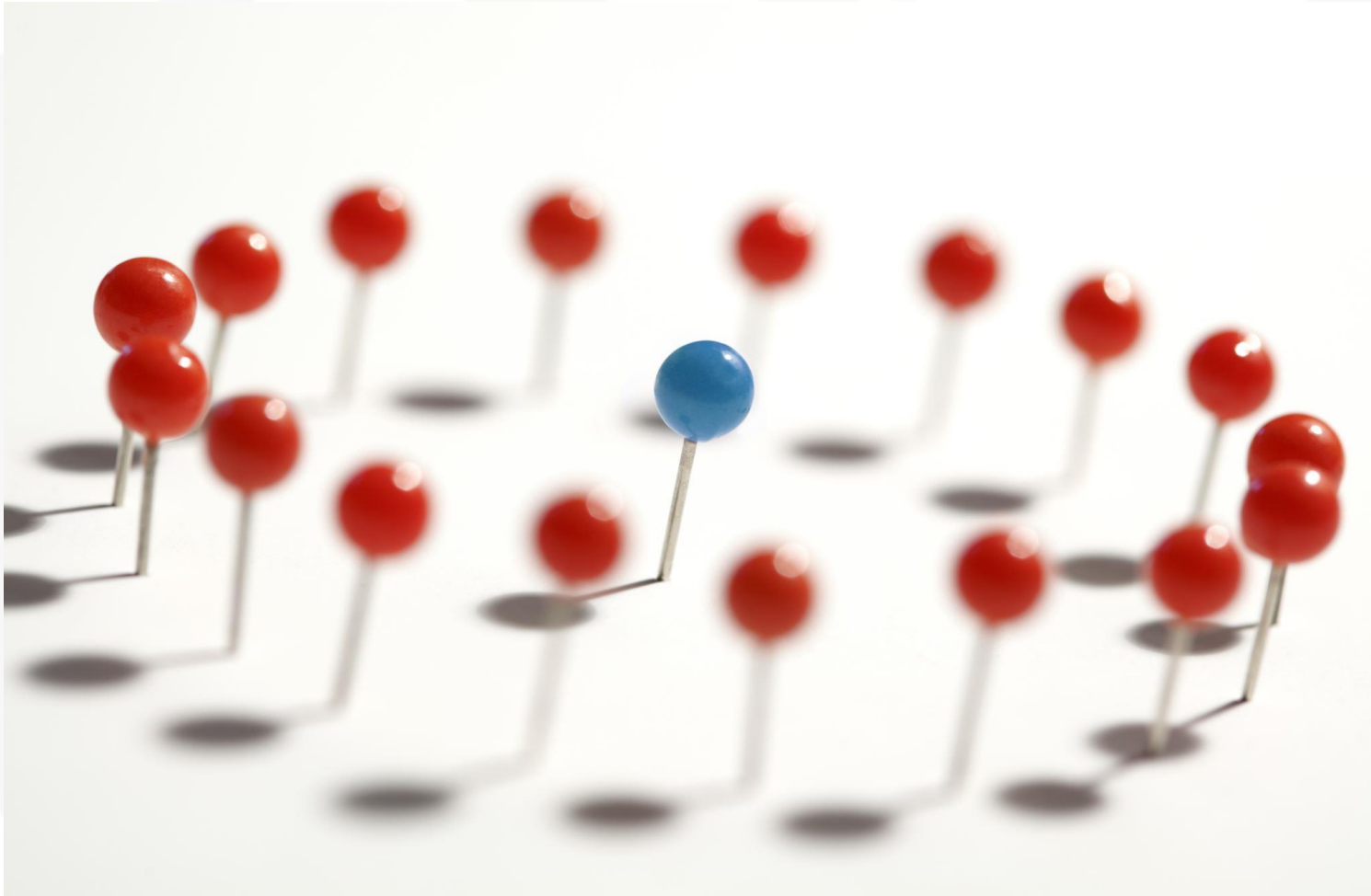
- Stack Overflow's annual developer survey is a comprehensive research initiative conducted to gather insights into the global developer community.
- The project aims to understand developers' preferences and trends in the software development industry.
- Demographic data included.
 - Geospatial distribution, age, gender and education level analysis.
- Data from almost 10000 developers .
- Target Audience: IT professionals.

METHODOLOGY



- Data Collection
 - Github job postings
 - Stuck Overflow Developers Survey 2019
- Data Wrangling
 - Python
- Exploratory Data Analysis
 - Python
- Data Visualization
 - Python
- Dashboards using Cognos Analytics

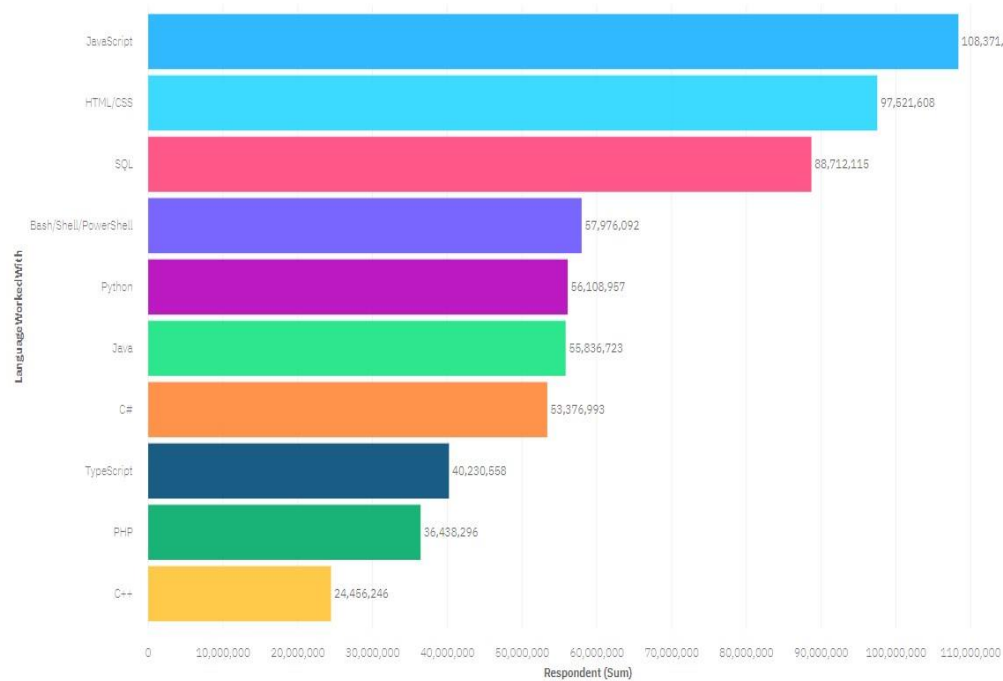
RESULTS



PROGRAMMING LANGUAGE TRENDS

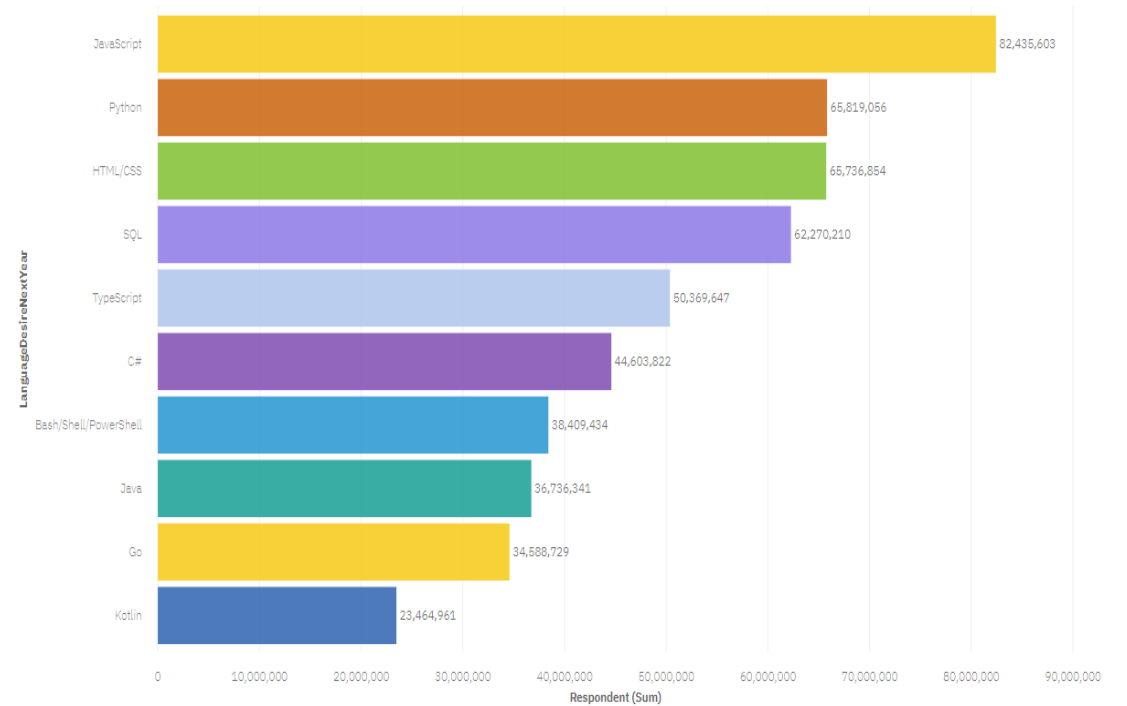
Current Year

Top 10 Programming Languages Worked With



Next Year

Top 10 Desired Languages Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript remains the absolute leader.
- Python grows rapidly.
- TypeScript enters the top 5.

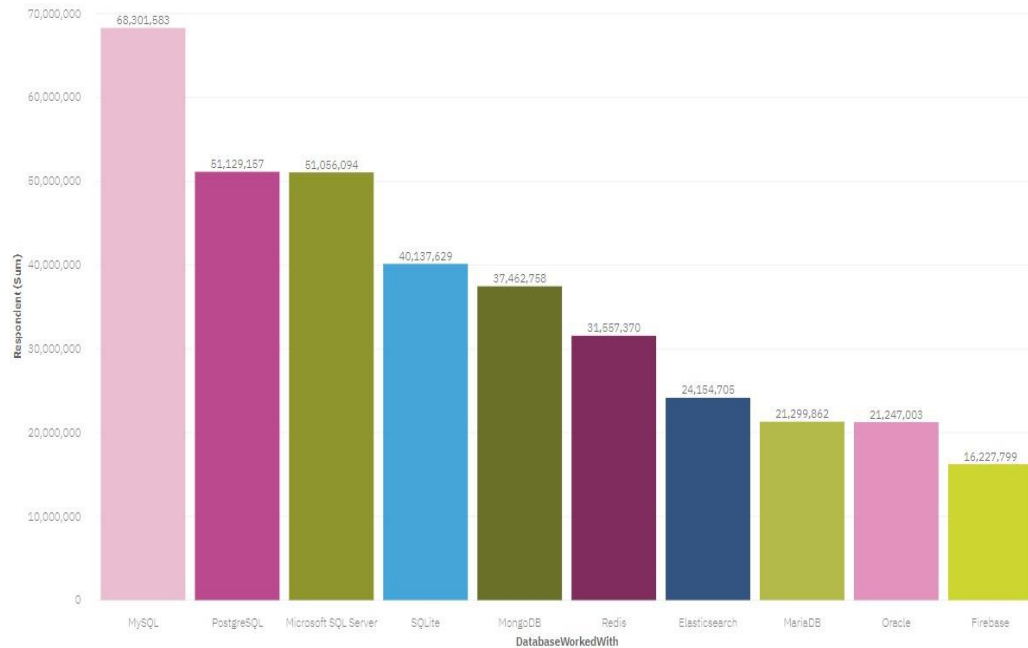
Implications

- JavaScript's versatility.
- Python has wide scale applicability in development and data analysis work.
- JavaScript developers use TypeScript regularly.

DATABASE TRENDS

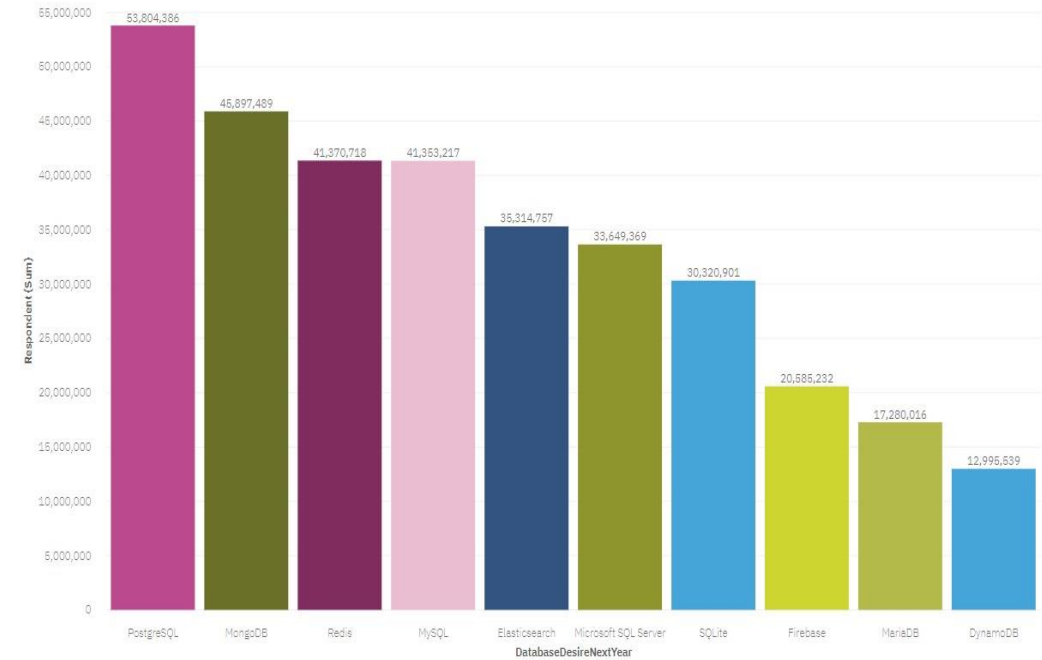
Current Year

Top 10 Databases Worked With



Next Year

Top 10 Desired Databases



DATABASE TRENDS - FINDINGS & IMPLICATIONS

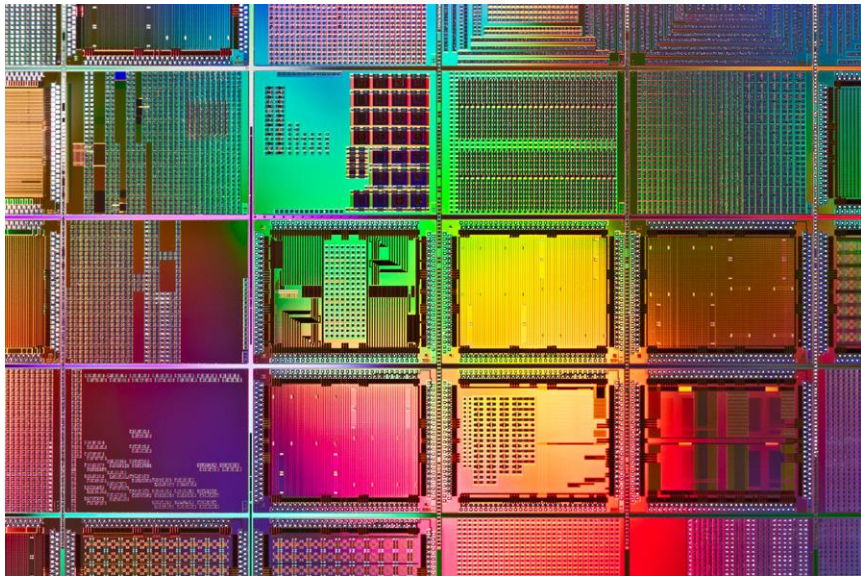
Findings

- MySQL is the top Database but with a declining trend.
- PostgreSQL seems to be the next year's leader.
- Interest for MongoDB.

Implications

- PostgreSQL offers data types that MySQL does not.
- PostgreSQL is chosen by companies.
- MongoDB process data faster than MySQL.

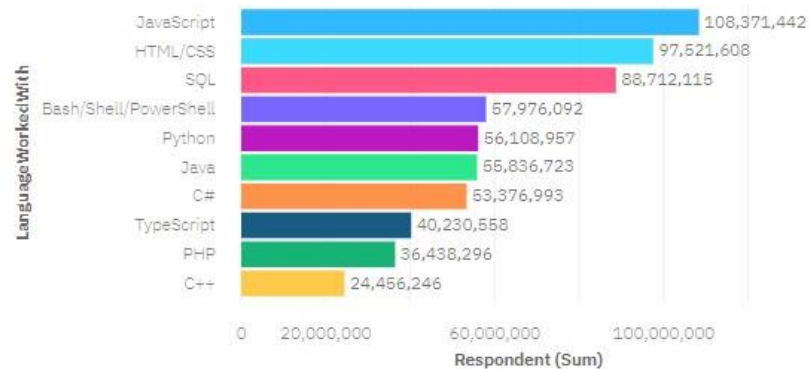
DASHBOARD



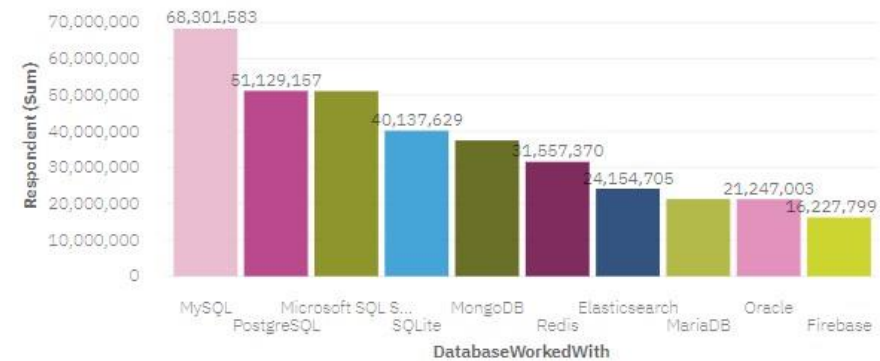
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Current Technology Usage

Top 10 Programming Languages Worked With



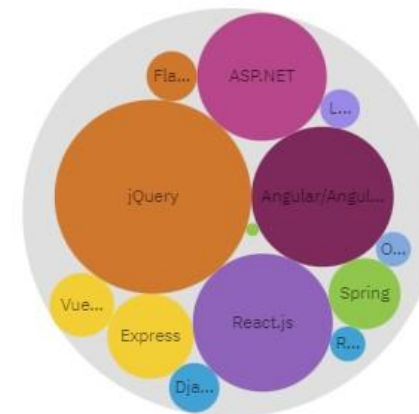
Top 10 Databases Worked With



Platforms Usage



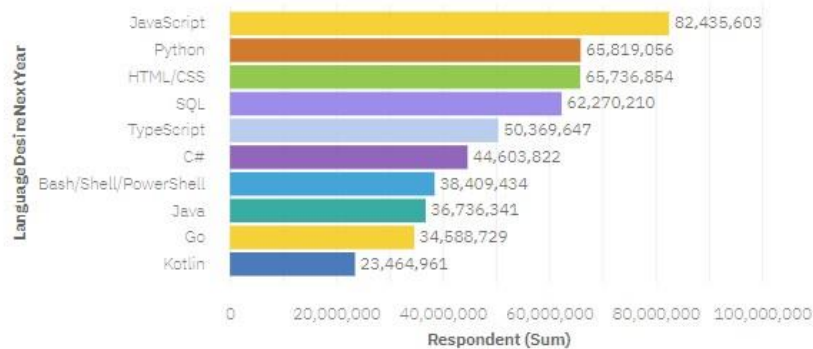
Top 10 Used WebFrames



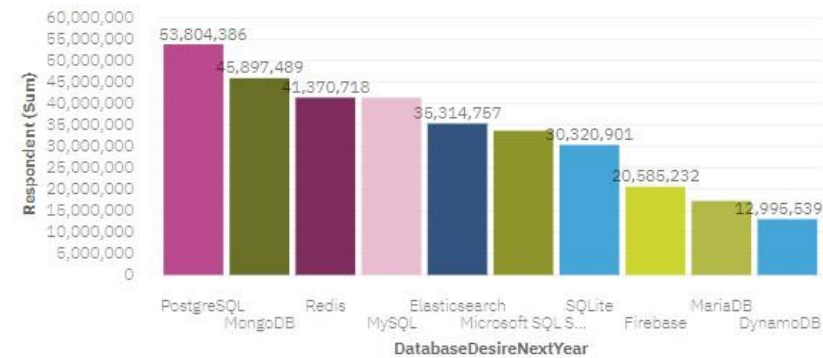
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Future Technology Trend

Top 10 Desired Languages Next Year



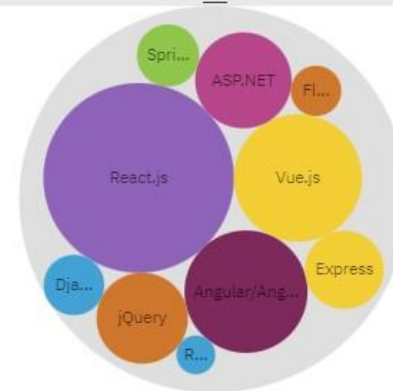
Top 10 Desired Databases



Platforms Next Year



Top 10 WebFrames Next Year

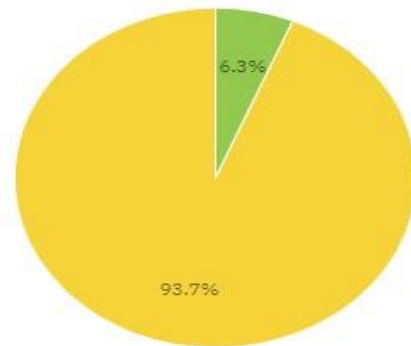


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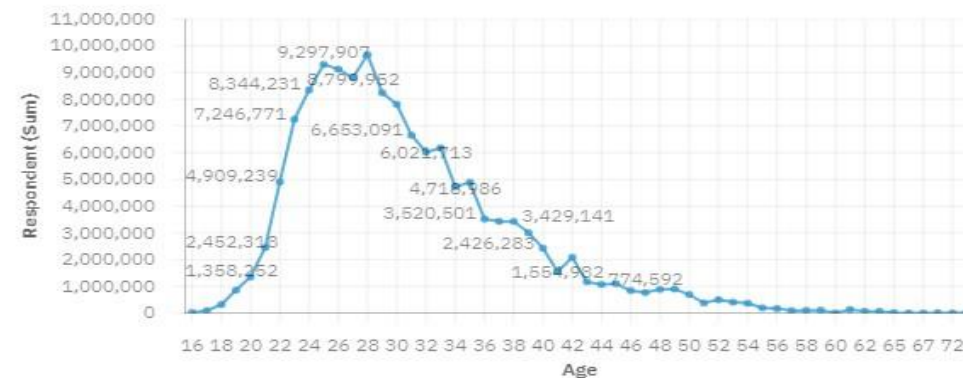
Demographics

Respondent Percentage By Gender

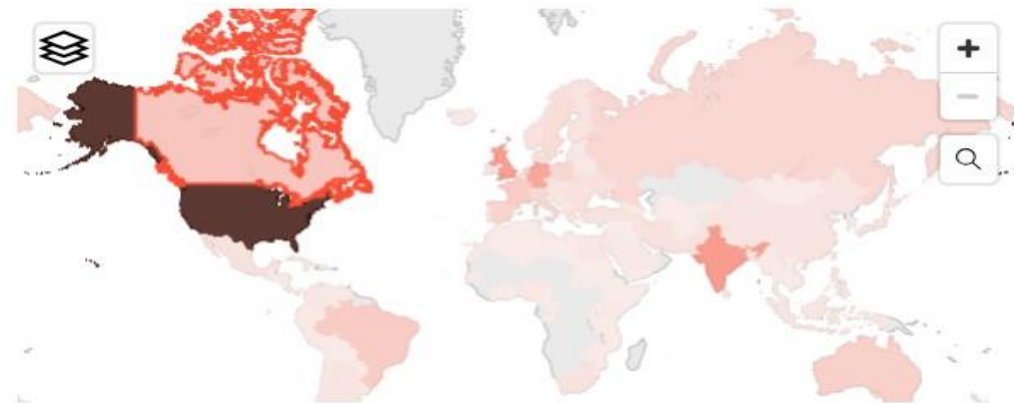
Gender
● Woman ● Man



Respondents by Age



Respondents By Country



Formal Education Level By Gender

EdLevel
● (no value) ● Associate degree
● Bachelor's degree (BA, BS, B.E... ● I never completed any formal ...
● Master's degree (MA, MS, M.E... ● Other doctoral degree (Ph.D, E,...



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DISCUSSION



- This survey takes into account nearly 90000 respondents.
- Simplicity and versatility of programming languages(Python and JavaScript) lead to a gaining popularity.
- The market establishment create trends in Databases usage(PostgreSQL)
- Developing countries and female developers must enter the Software Developer Industry to meet the increasing needs.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Widespread adoption of JavaScript and Python.
- Establishment of PostgreSQL in the top of Databases.
- Except from India the majority of respondents are male residents of developed countries.

Implications

- JavaScript's ubiquity and Python's simplicity.
- PostgreSQL markets establishment.
- Historical gender biases in education and workforce opportunities.

CONCLUSION

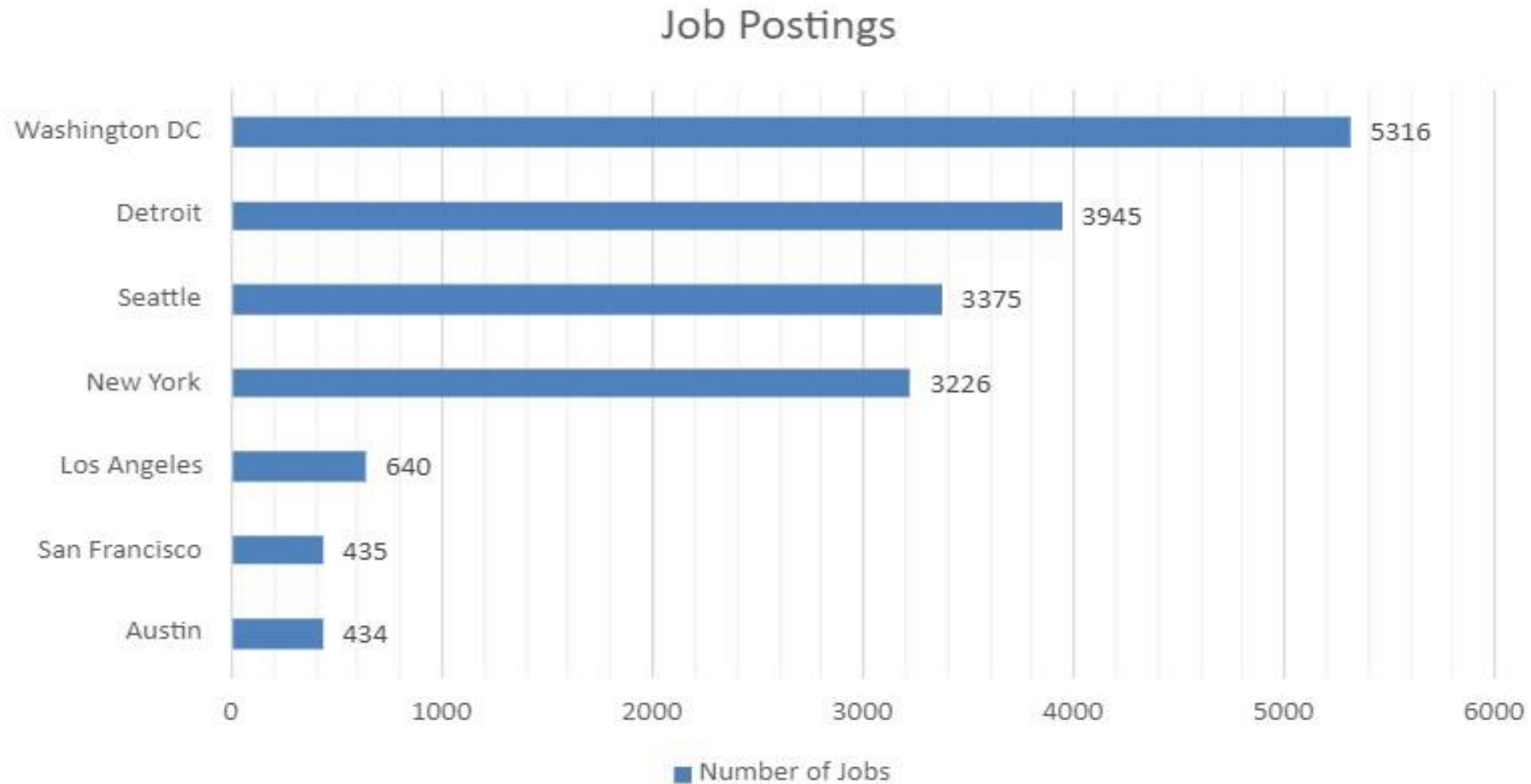


- Developers' preferences in programming languages are triggered from the versatility and the simplicity of usage.
- Databases are preferred for their advanced characteristics and their market application.
- Male the main contributors due to historical and socioeconomic reasons.
- Developing countries such as India can offer a lot in the technological industry.

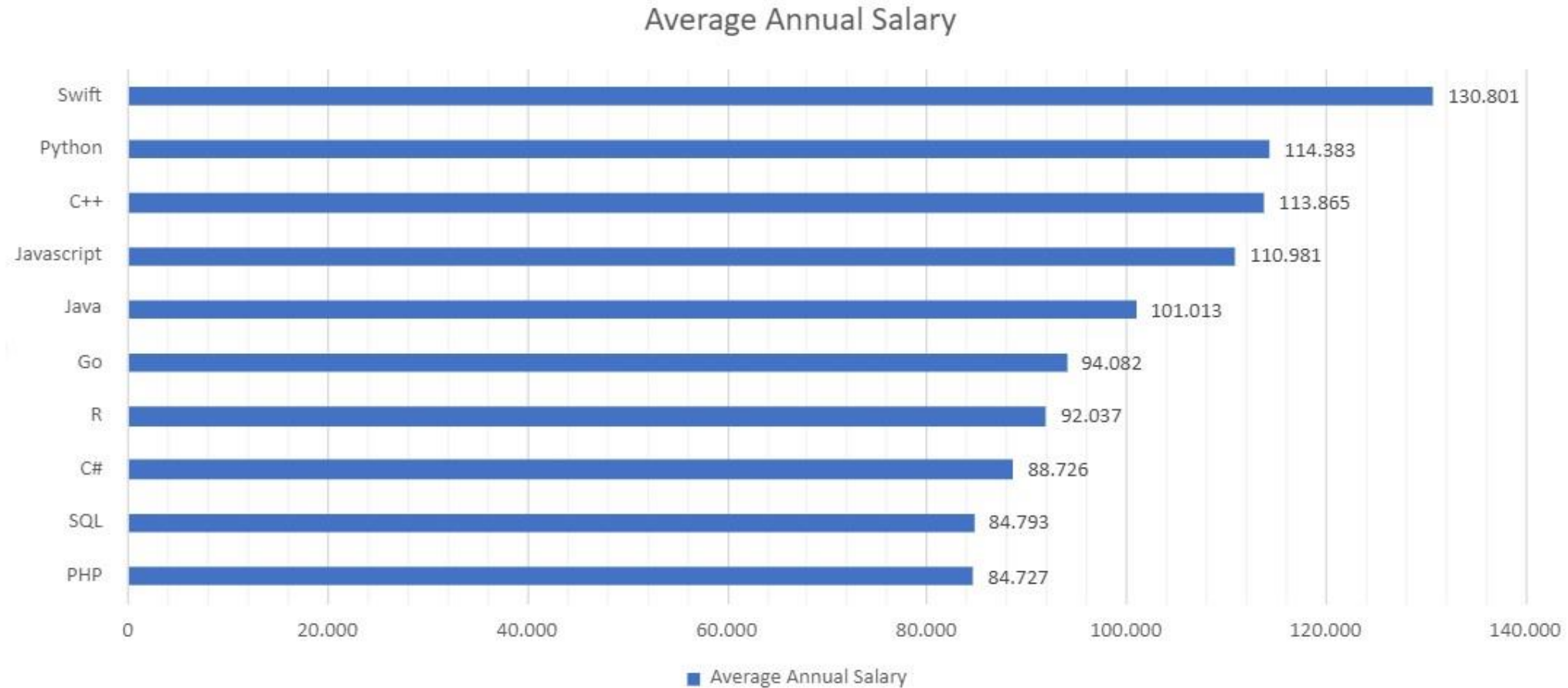
APPENDIX



JOB POSTINGS



POPULAR LANGUAGES



References

- <https://www.kaggle.com/promptcloud/jobs-on-naukricom>
- https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m1_survey_data.csv
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