



Stack Overflow Developer Survey 2019

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OUTLINE



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EXECUTIVE SUMMARY



- Javascript and HTML are most popular languages but Python and TypeScript growing fast.
- MySQL is most used database but PostgreSQL is rising along with MongoDB and Redis.
- Windows and Linux most popular platforms along with rise of Cloud Platforms like AWS, GCP and Docker.
- Male dominated community with less than 10% female developers indicating need for female growth.
- 24-30 Age group form the largest chunk of developers indicating young energetic labour

INTRODUCTION



- Stack Overflow's annual Developer Survey is the most comprehensive survey of people who code around the world - comprising nearly 90,000 developers.
- Current and Future Technological trends analysed.
 - Focus on Programming Languages, Databases and Frameworks used by developers
- Demographics of developers analysed.
 - Based on Age, Gender, Education Level and Countries

METHODOLOGY



- Collect survey data
 - API
 - Web Scraping
- Data Exploration and Data Wrangling
- Exploratory Data Analysis
 - Data Distributions
 - Outlier Detection
 - Correlations
- Data Visualization
 - Data Distribution and Composition
 - Relationships and Comparisons
- Dashboards

RESULTS

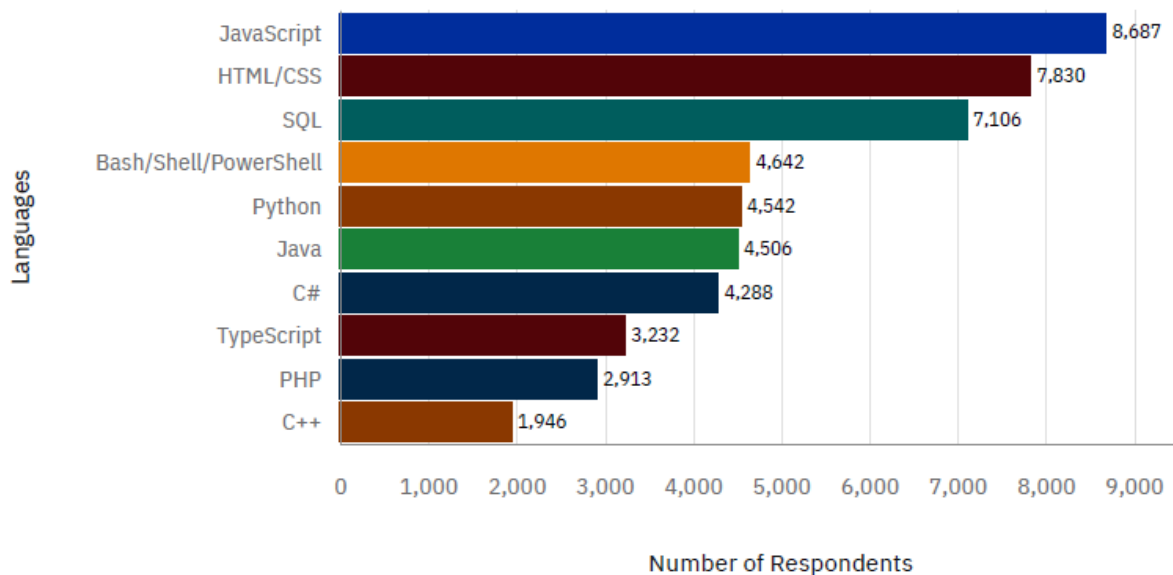


PROGRAMMING LANGUAGE TRENDS

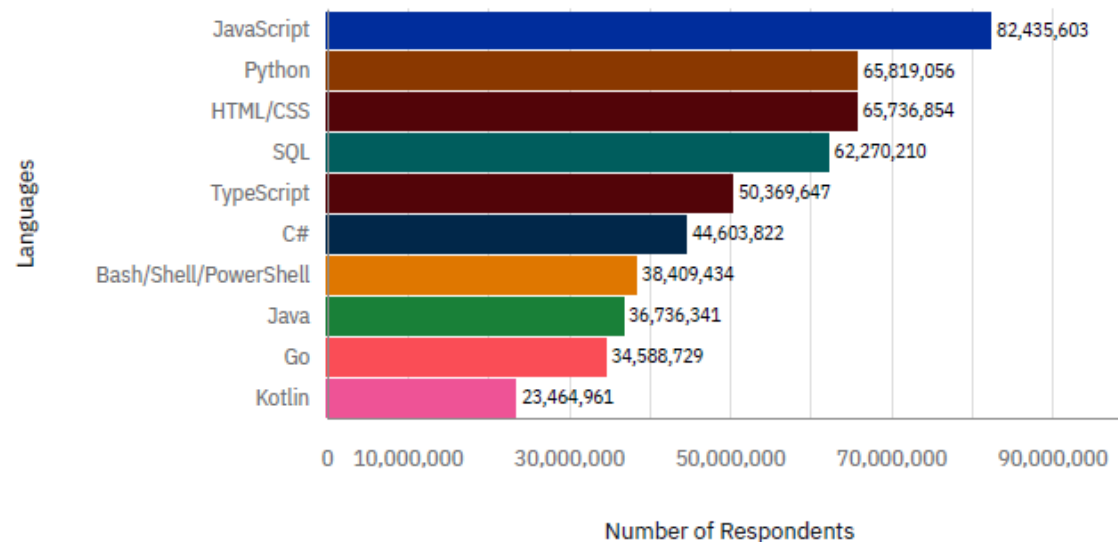
Current Year

Next Year

Top 10 Programming Languages used



Top 10 Language Desired Next Year



PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

Findings

- Javascript and HTML/CSS are most popular and will maintain their position next year
- Python is in top 5 and is growing fast.
- Sql will continue to remain in demand for next year
- Decline in Bash Shell/Power shell

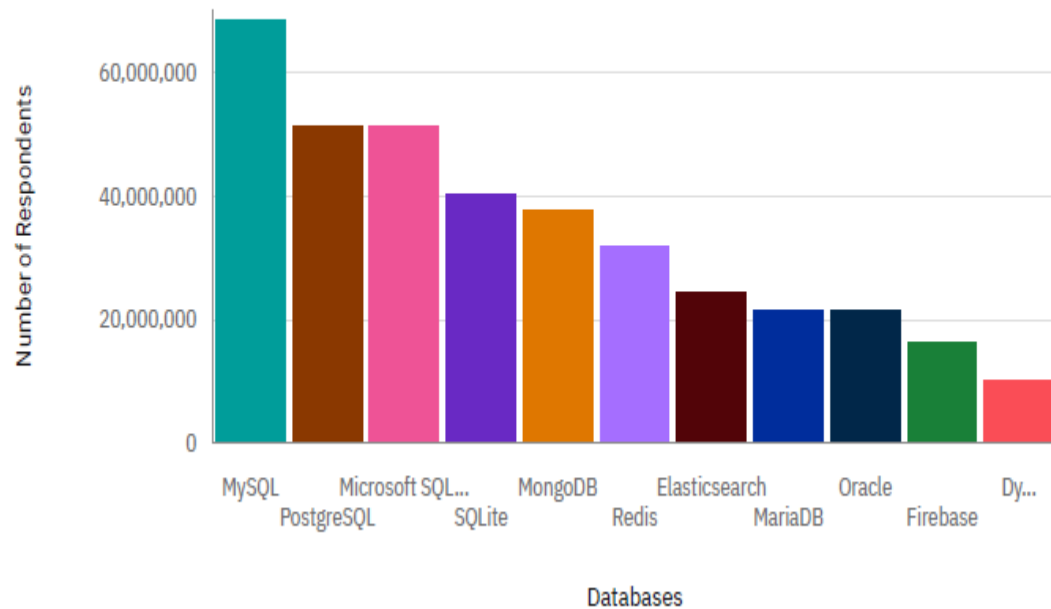
Implications

- Javascript and HTML/CSS to stay in demand
- Fast rise in Python developers
- SQL will stay relevant
- Rise in Typescript on cost of Bash Shell/Power Shell

DATABASE TRENDS

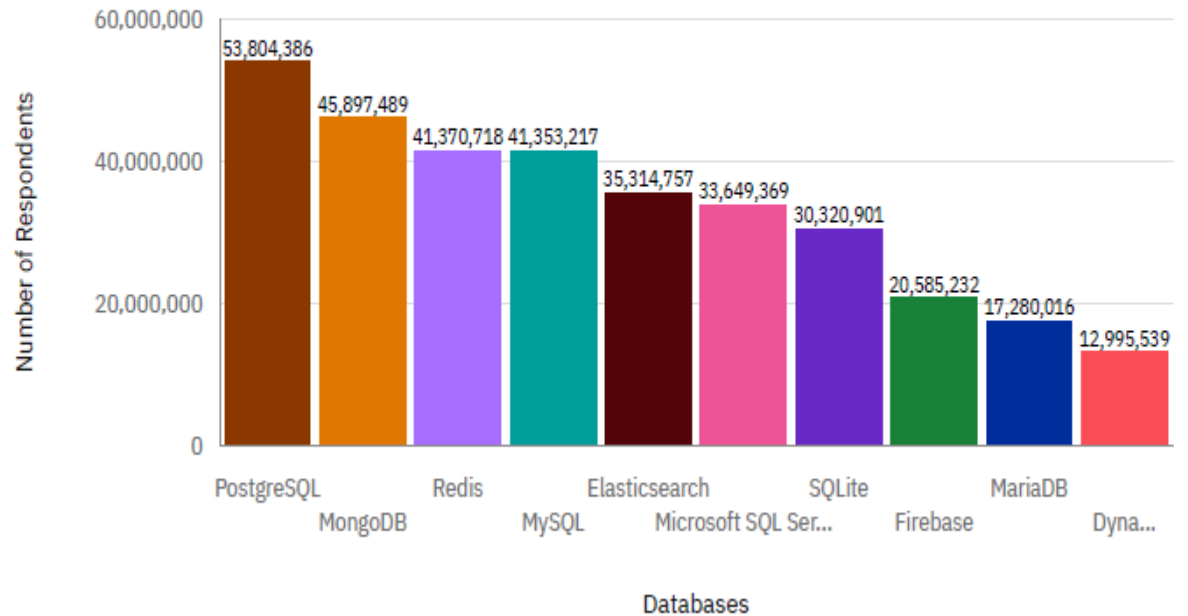
Current Year

Top 10 Databases Worked with



Next Year

Top 10 Databases Desired Next Year



DATABASE TRENDS – FINDINGS & IMPLICATIONS

Findings

- MySQL is most popular.
- PostgreSQL is on 2nd spot but is most desired for next year.
- MongoDB is 2nd most desired for next year whereas Microsoft SQL Server is declining.

Implications

- PostgreSQL and MongoDB to gain market share.
- Microsoft SQL Server losing ground.

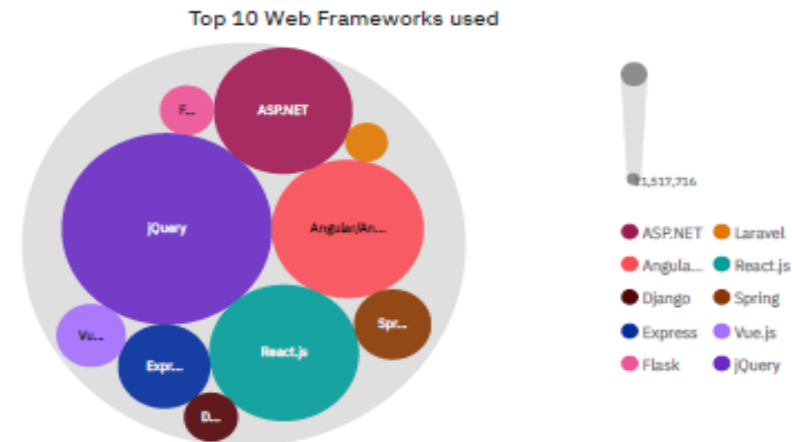
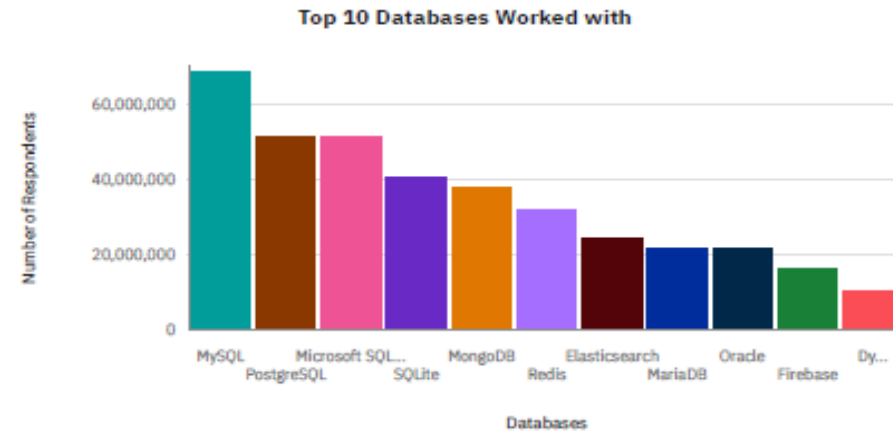
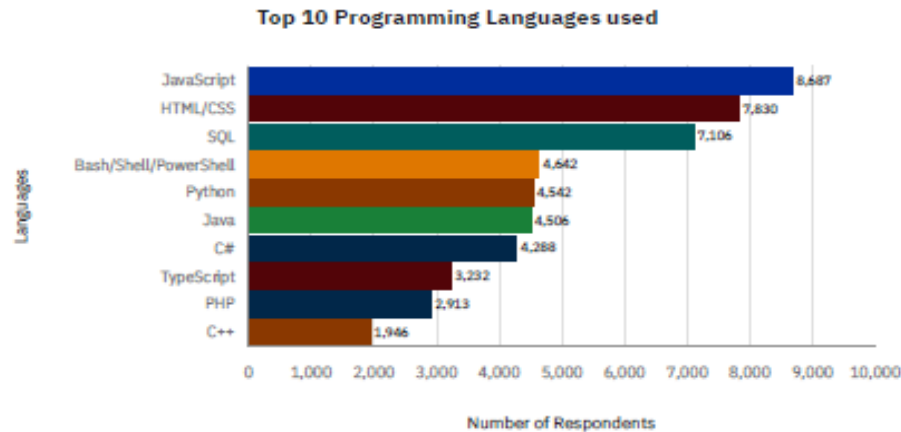
DASHBOARD



https://github.com/harshitgahlaut/IBM_Data_Analyst_Capstone_Project/blob/main/5%20Dashboard.pdf

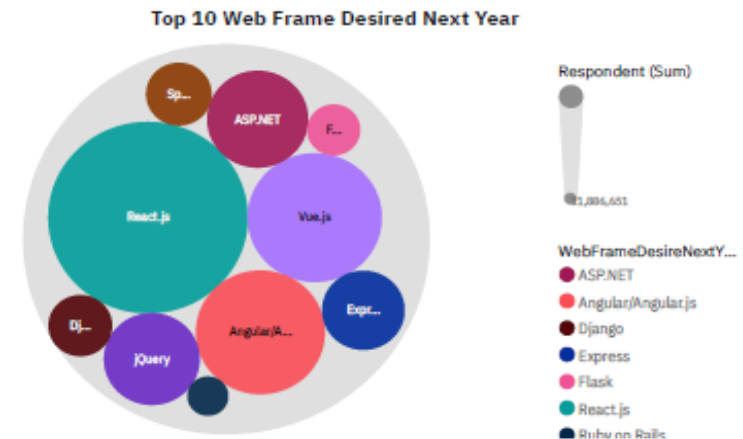
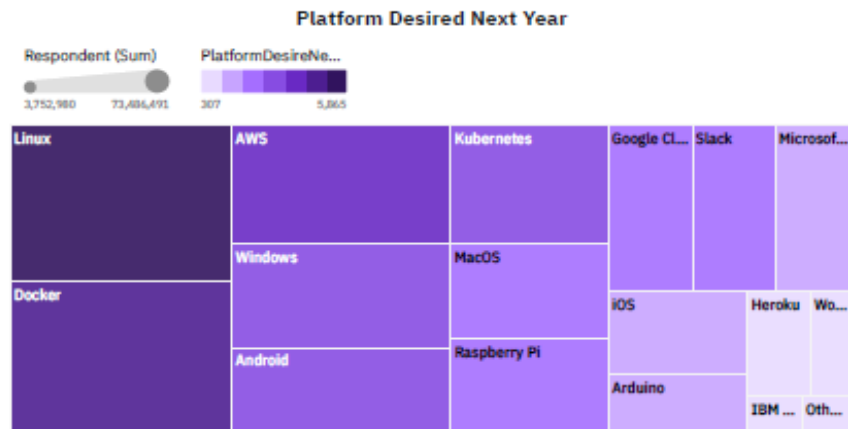
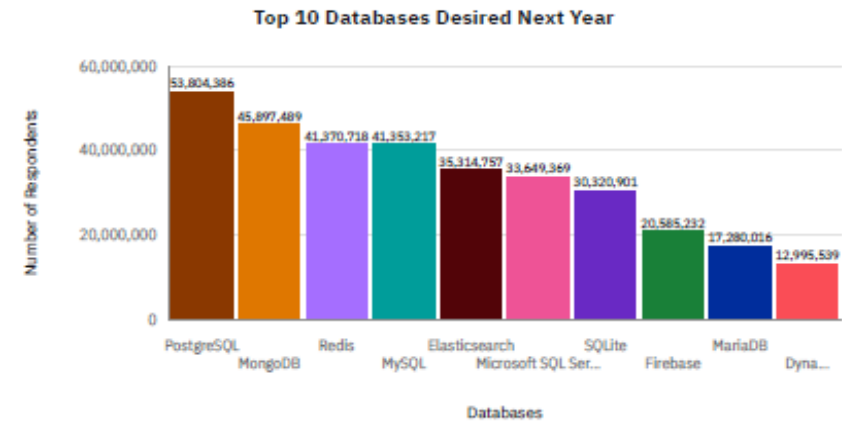
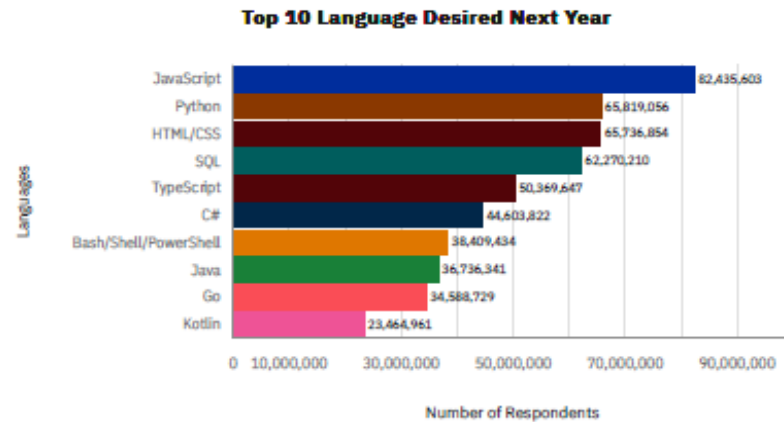
Current Technology Usage

Current Technology Usage



Future Technology Trend

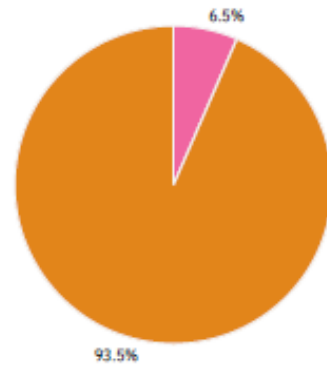
Future Technology Trend



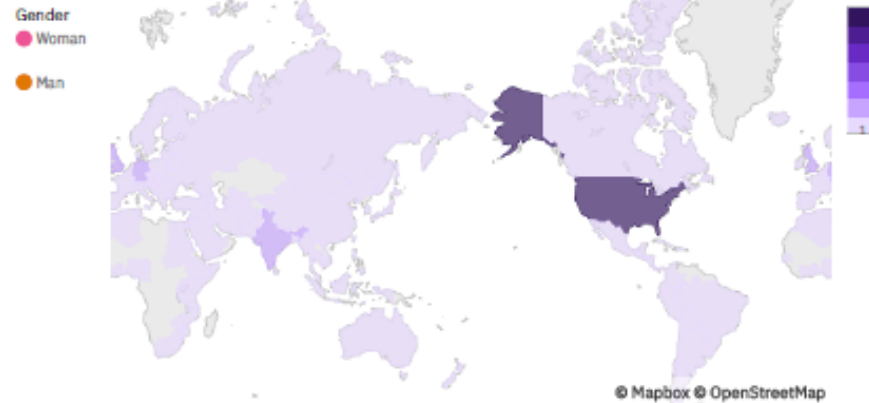
DEMOGRAPHICS

Demographics

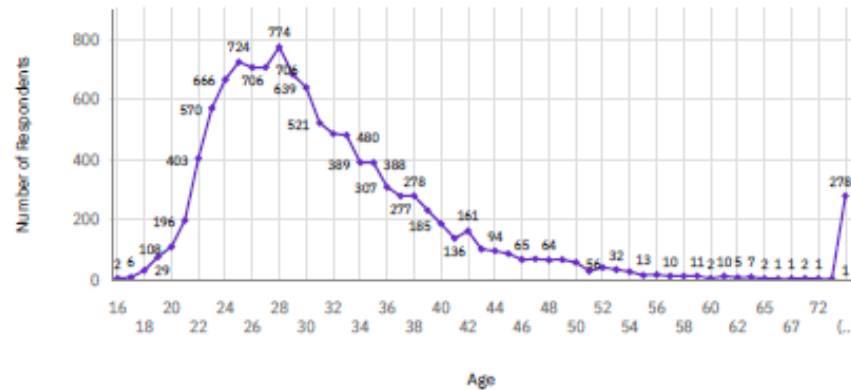
Respondent by Gender



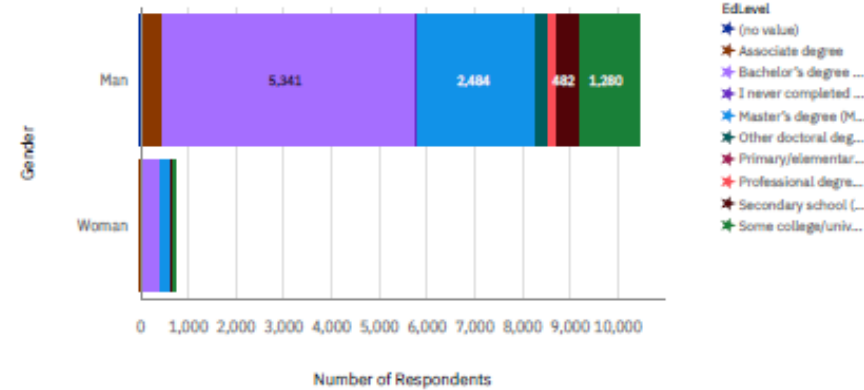
Respondent by Country



Respondent by Age



Education Level by Gender for Respondents



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Javascript and HTML/CSS are popular whereas Python and Typescript are getting popular.
- PostgreSQL getting popular whereas MS SQL Server is declining.
- Windows and Linux most interacted whereas Docker is on rise.
- Over 90% Developers are Male and developers with Bachelor's degree form the majority.

Implications

- Python developers to gain market.
- MS SQL Server decline will make way for PostgreSQL and Redis.
- Cloud Platforms on rise like Google GCP, Docker, AWS.
- Global pockets of developers in few countries like USA, India.
- Developers from different educational background continue to join in.

CONCLUSION

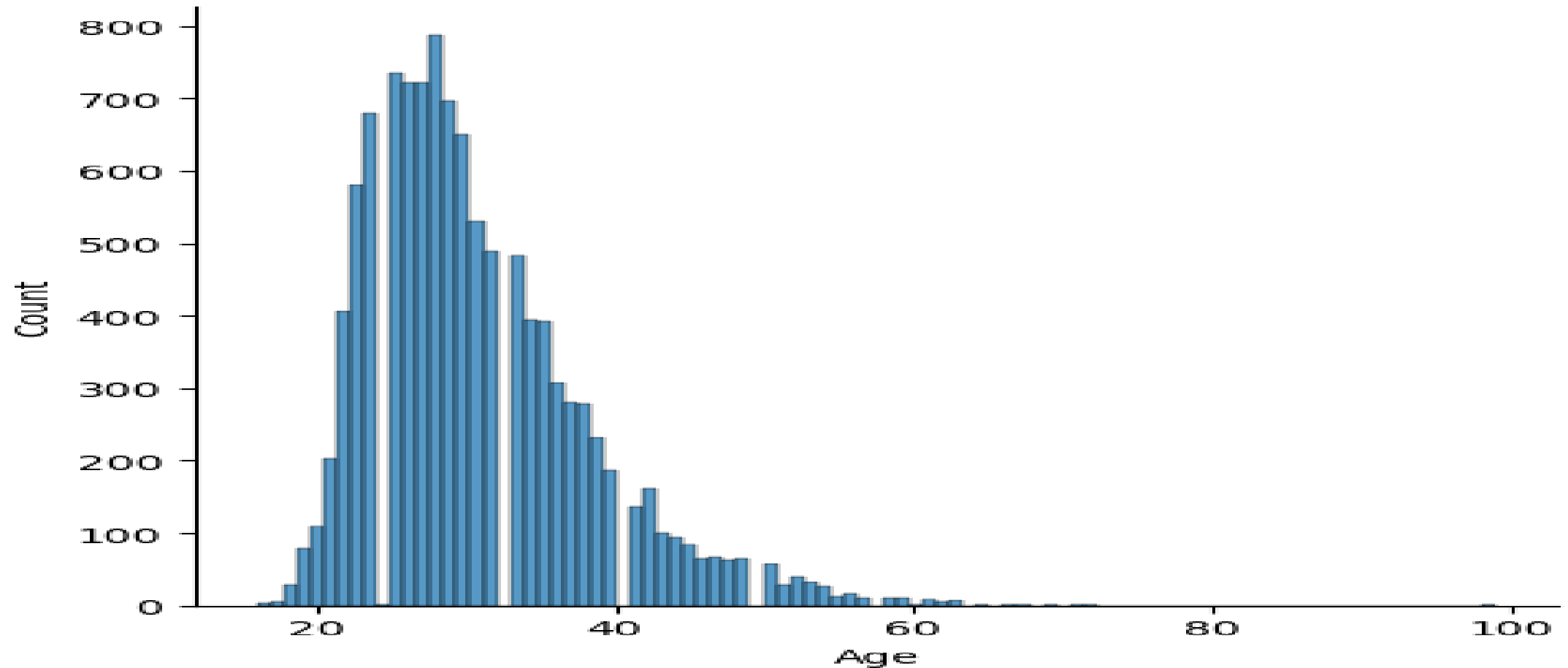


- Developers form a unique community stemming from diverse educational backgrounds and geographical locations..
- A comprehensive examination of trends within this community is derived from various factors including age, gender, location, platforms, languages, and databases.
- Enhancing accessibility to markets in underdeveloped and developing regions can foster a more inclusive community.

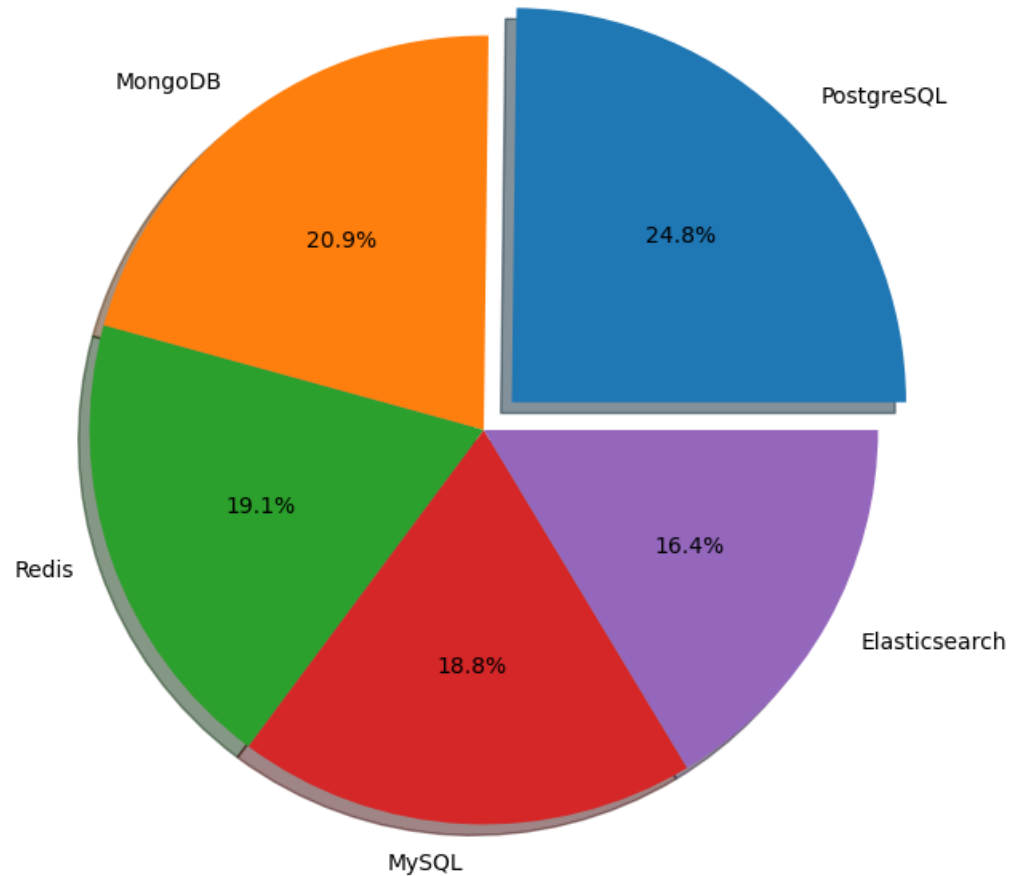
APPENDIX



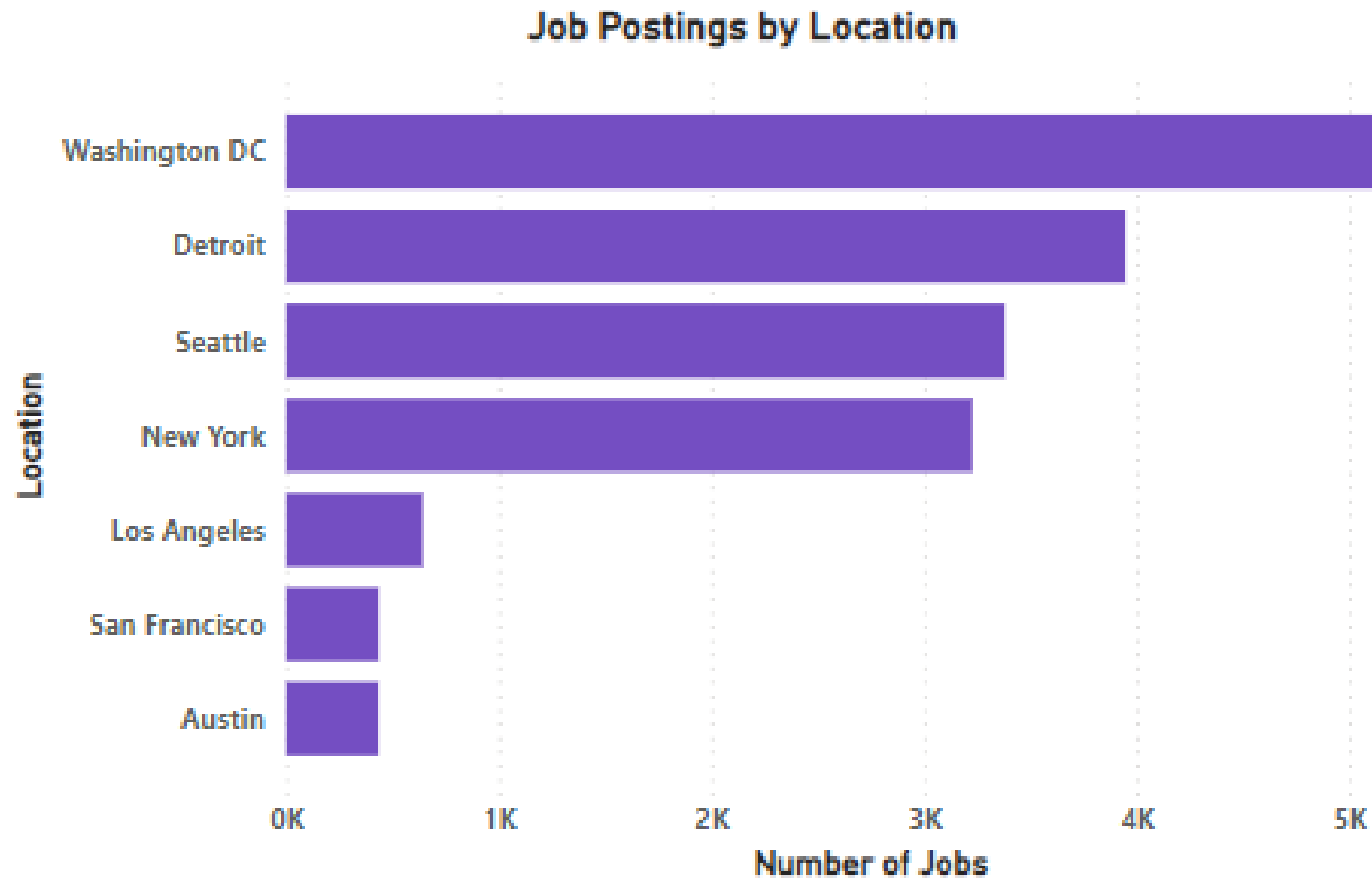
Age Distribution



Top 5 Databases Next Year



JOB POSTINGS



POPULAR LANGUAGES

