



<Capstone
Final
Project>
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<09/27/23>

OUTLINE



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

EXECUTIVE SUMMARY



- Data analysis and gathering.
- Description
 - Data analysis
 - Data visualization
 - Data gathering
- Present data with graphs.
- Discuss findings.
- Concluded results to find results.

INTRODUCTION



- Working with Stack Overflow Developer Data to conduct research on top programming languages
- Technology is always changing and it is necessary to keep up with it to remain competitive

Collect data from various sources and identify trends

- Collect top programming languages that are most in demand from
 - Job Postings
 - Surveys

METHODOLOGY



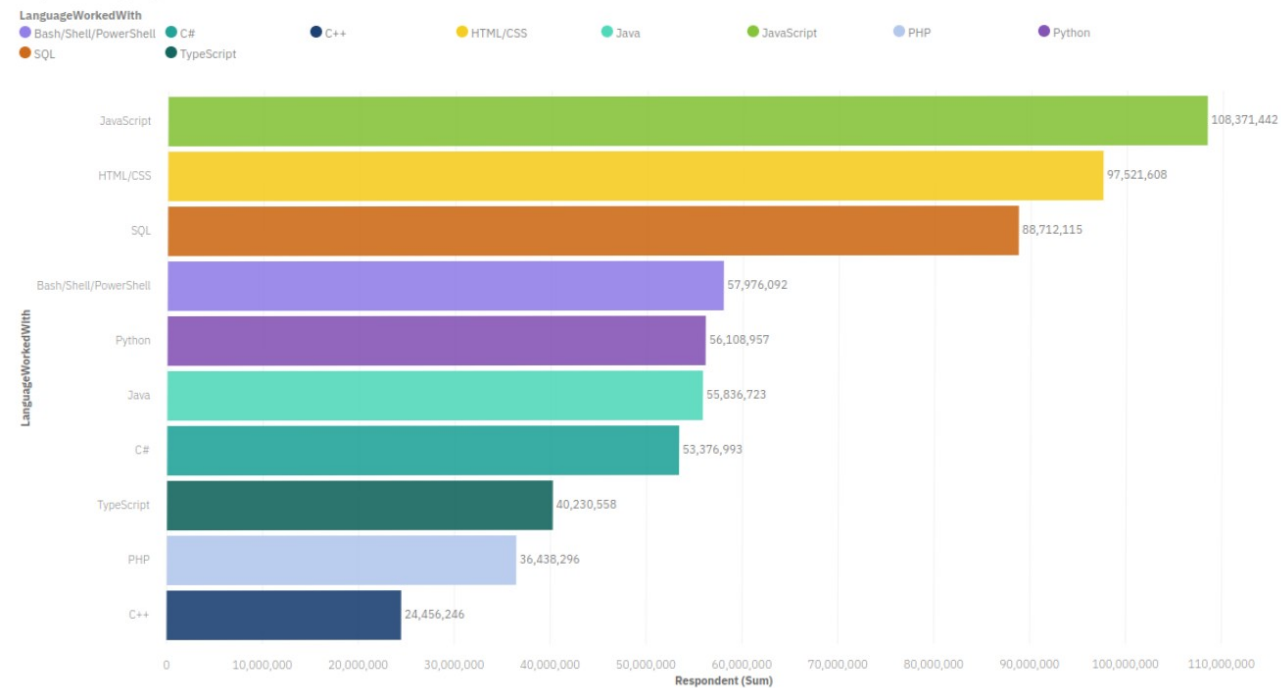
- Collect survey data and explore its contents with Web Scaping, APIs, and Request librarys
- Data Wrangling
- Exploratory data analysis
- Data Visualizations
- Dashboards

RESULTS

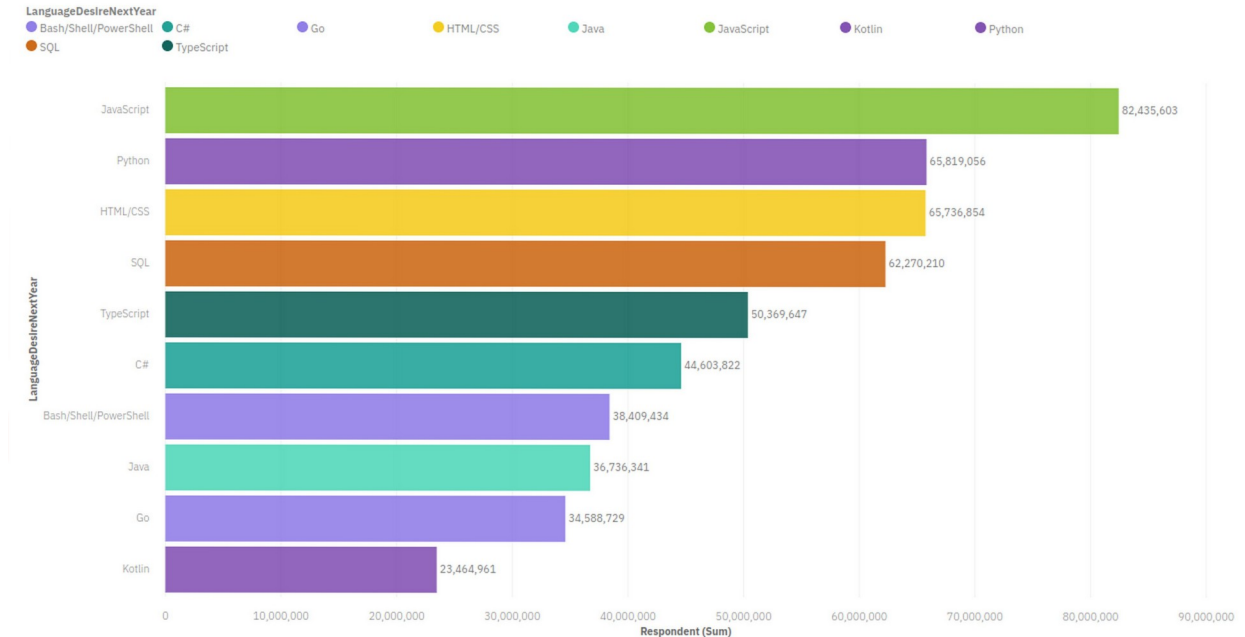
- JavaScript is the top language
- MySQL is the top database
- Iquery is the top Webframe
- Linux Is the mot popular platform

PROGRAMMING LANGUAGE TRENDS

Top 10 Languages Worked With



Top 10 Languages Desired Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

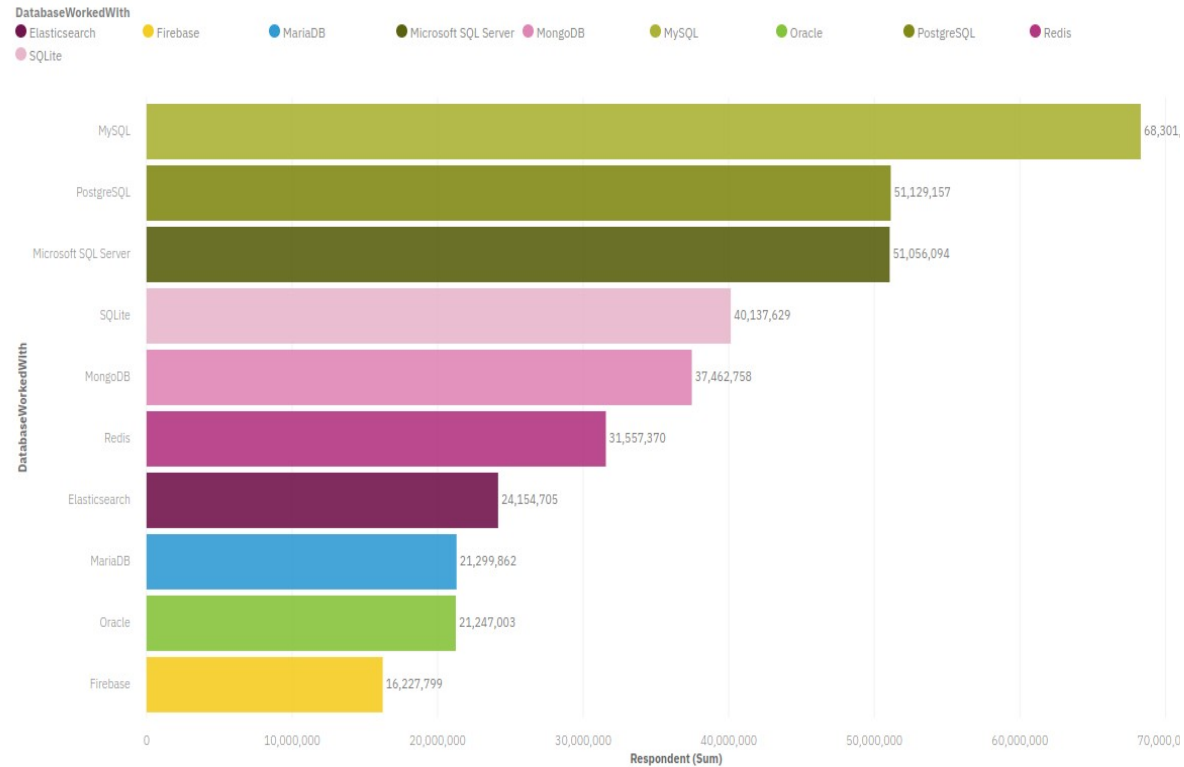
- JavaScript is the leading language
- Python is the fastest growing
- HTML/CSS remains top 3 language

Implications

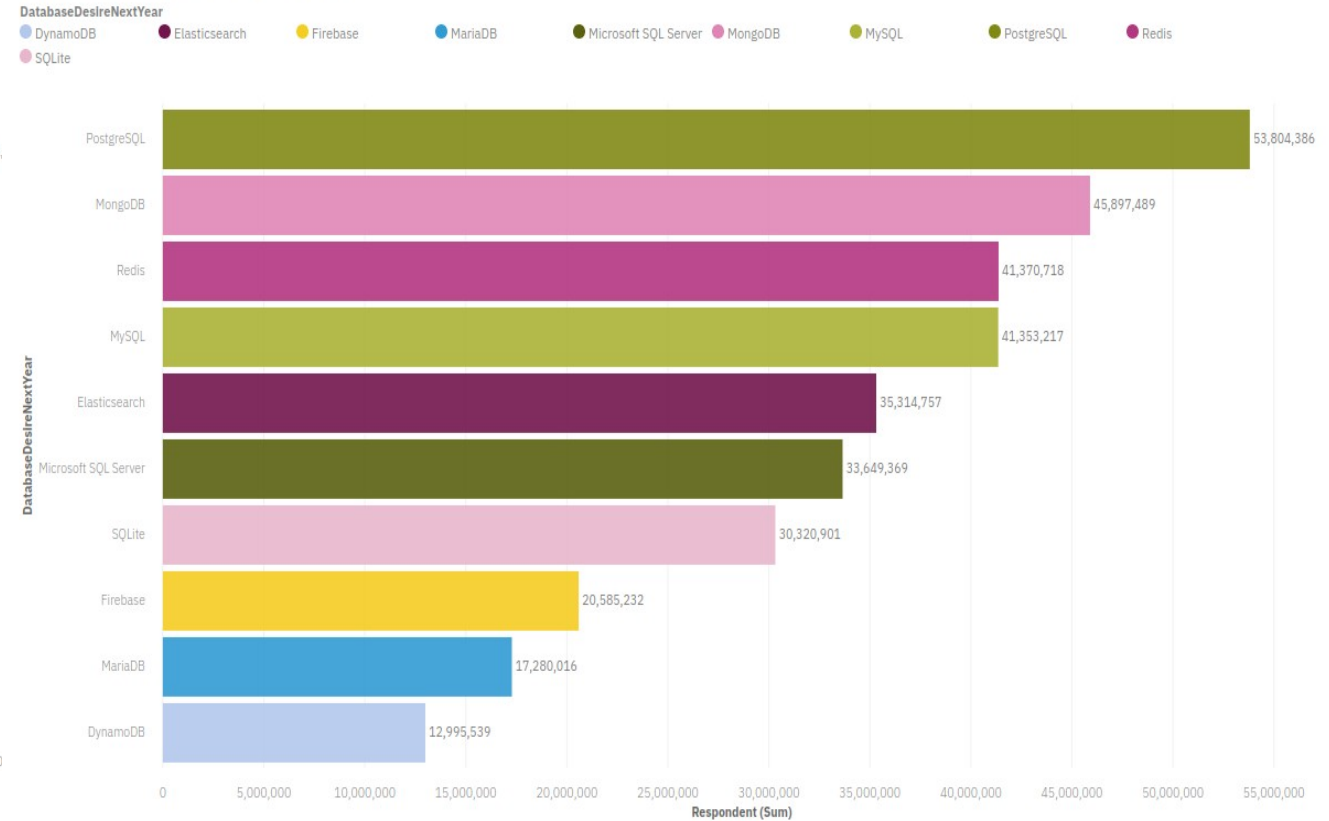
- Developers could switch to TypeScript from JavaScript
- SQL will always remain a top language
- Java could be going extinct

DATABASE TRENDS

Top 10 Databases



Top 10 Databases Desired For Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the leading database currently
- PostgreSQL is most desired for next year
- MongoDB has great increase in usage for next year

Implications

- PostgreSQL replaced MySQL in the future
- MySQL is no longer the leading the language for the future
- Oracle database will maybe no longer be used in the future

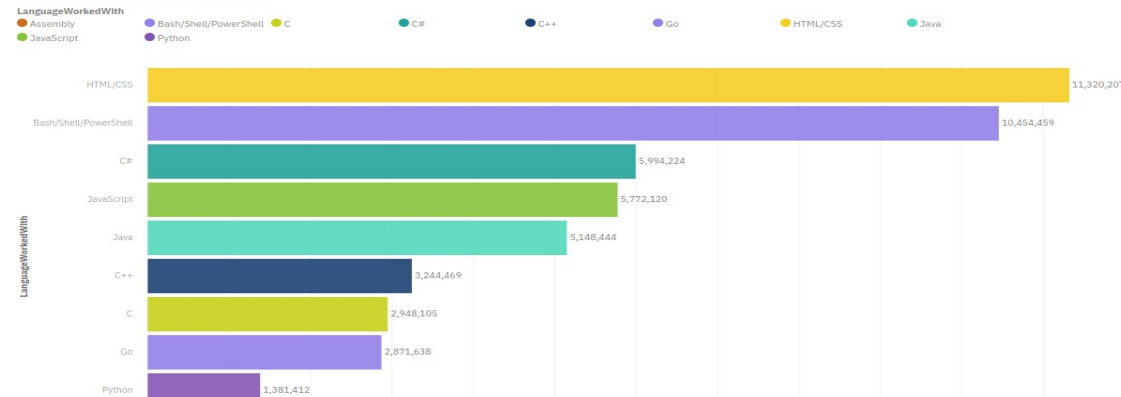
DASHBOARD



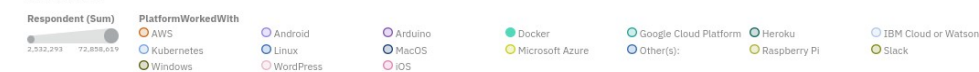
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Current Technology Trend

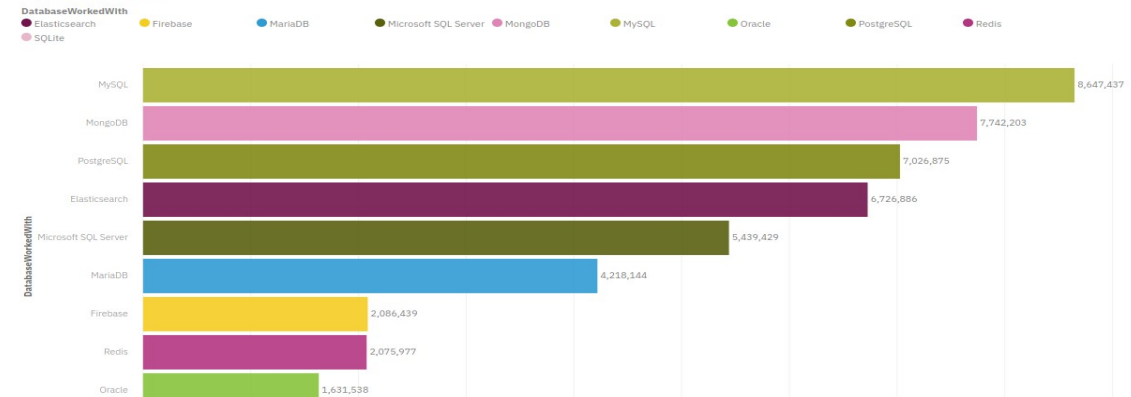
Top 10 Languages Worked With



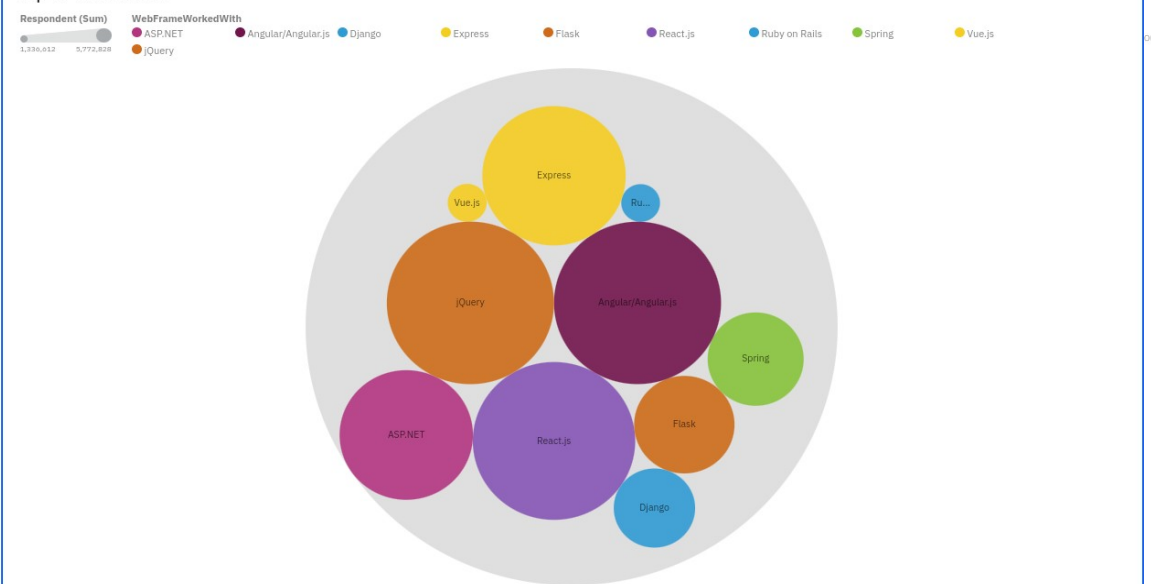
Platforms



Top 10 Databases

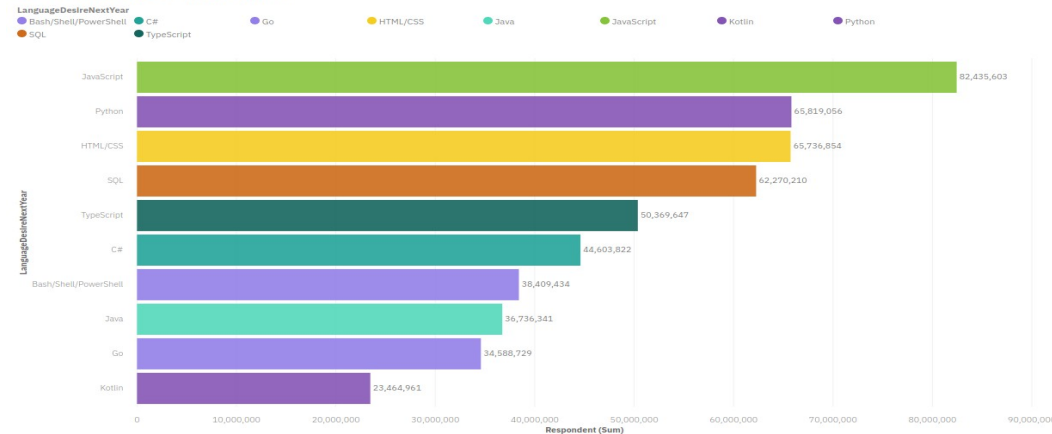


Top 10 Webframes

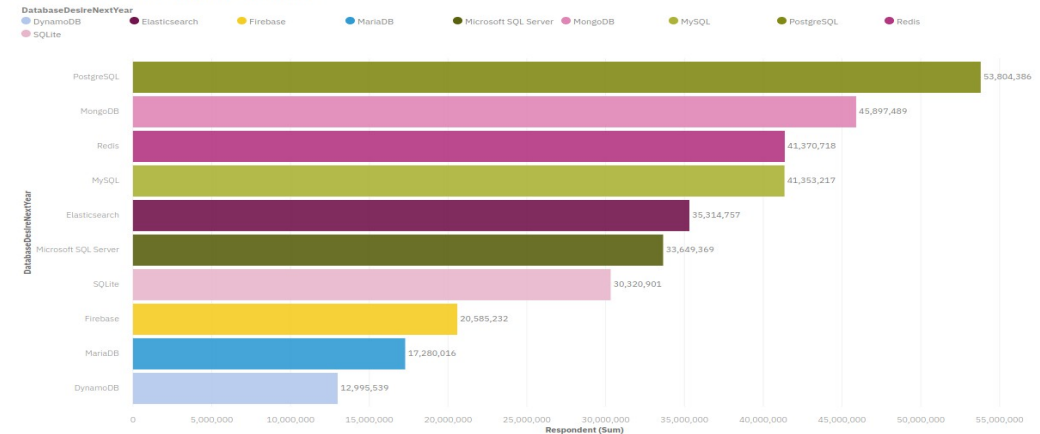


Future Technology Trend

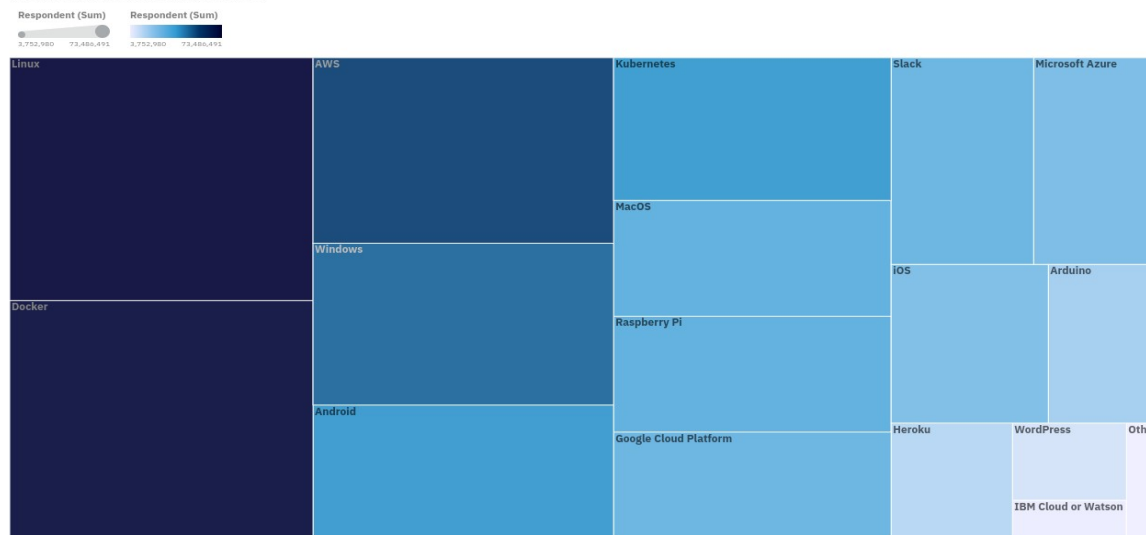
Top 10 Languages Desired Next Year



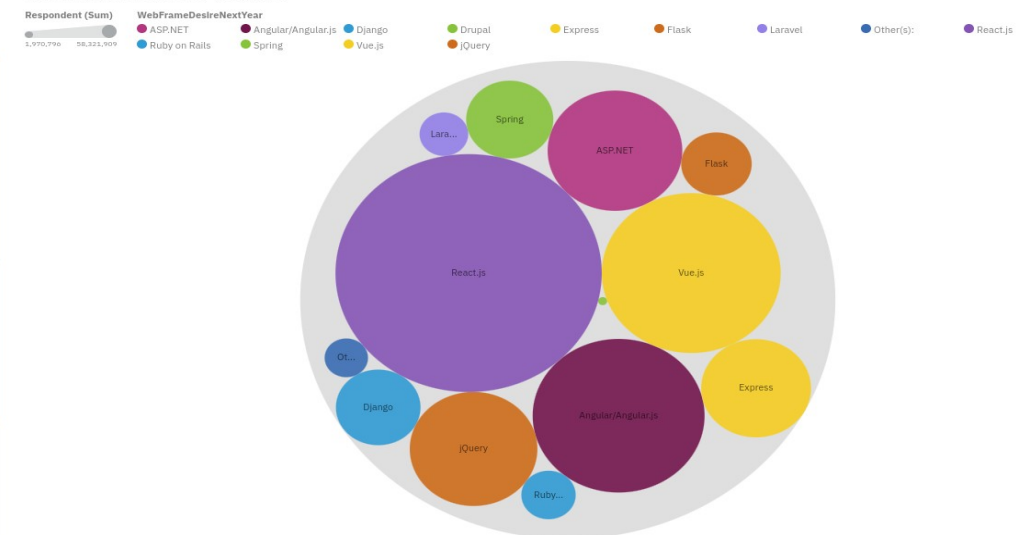
Top 10 Databases Desired For Next Year



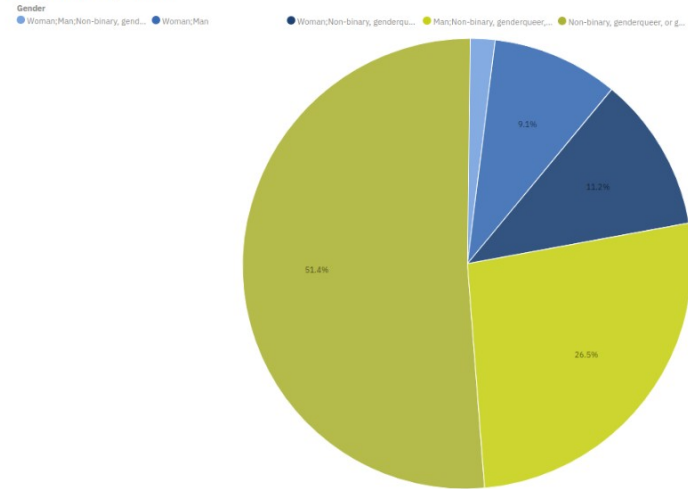
Platforms Desired for Next Year



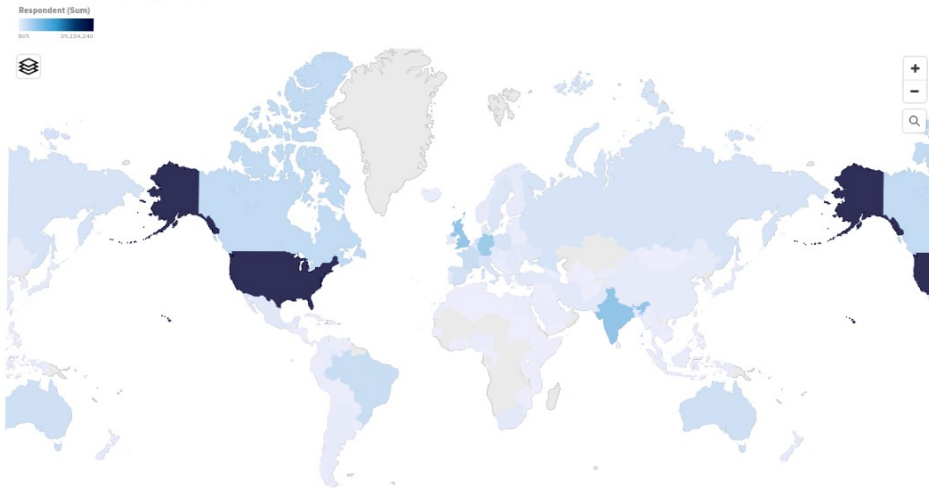
Webframes Desired For Next Year



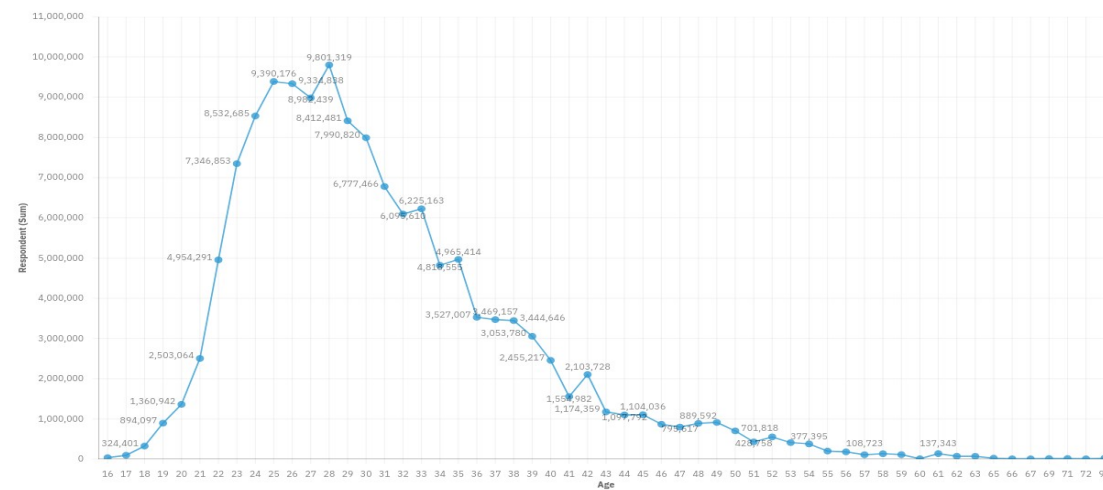
Demographic



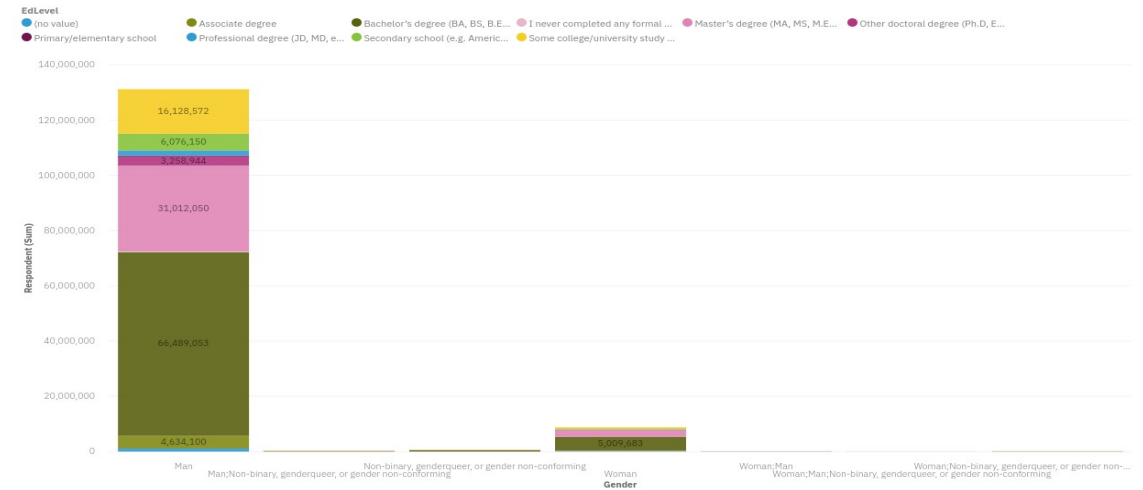
Respondent Count by Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



- What is affecting technology to change?
- What needs to be done in order to keep up with change?
- Adaptability seems to be the key skill to maintain for the future.

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript is the leading language
- Developers are mostly in developed countries
- 90% of males are dominant for developer roles

Implications

- TypeScript is gaining popularity
- Rise in unfinished graduate developers in the future
- Developers may remain dominant in developed countries

CONCLUSION



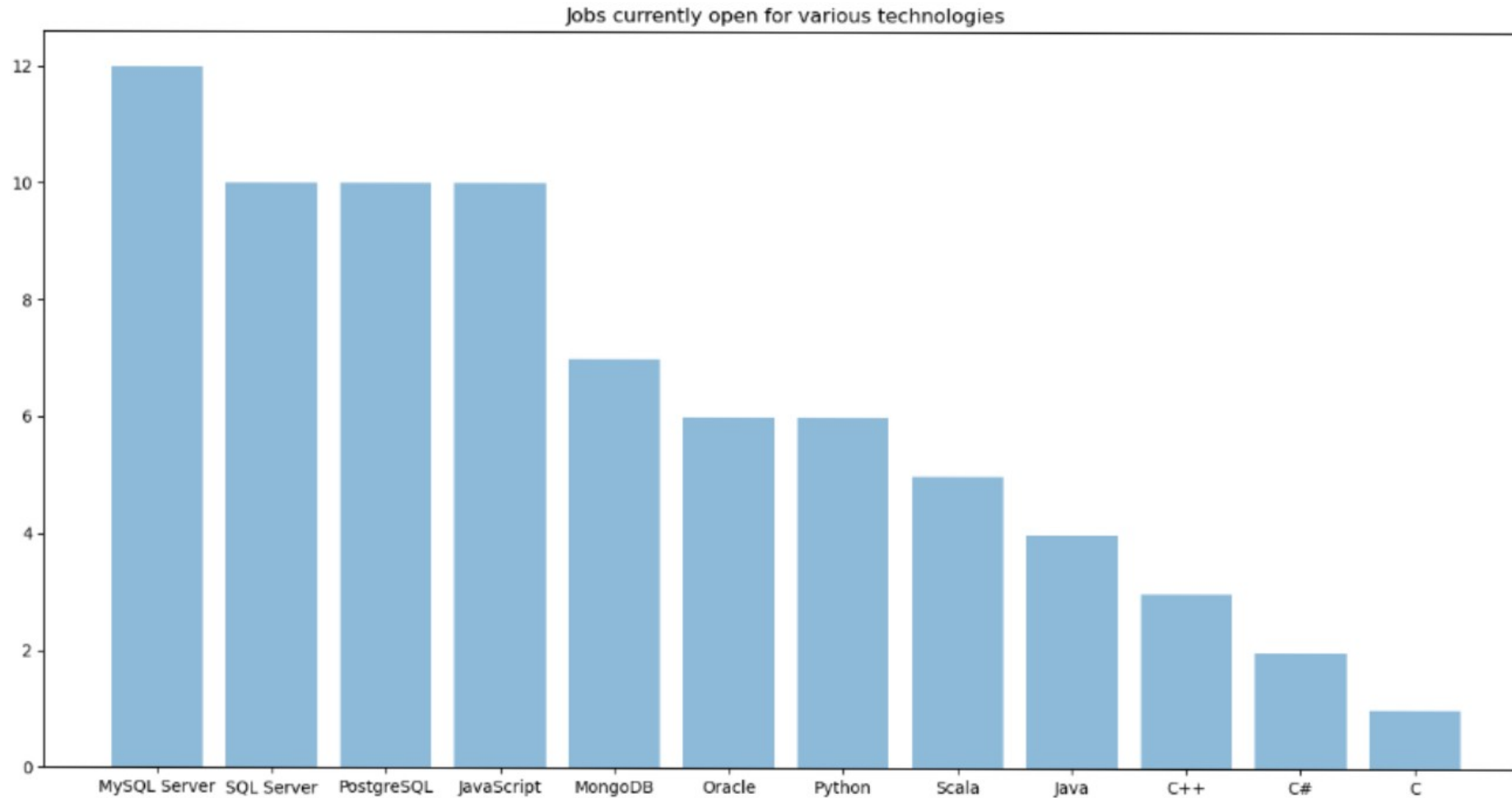
- Developed countries may have the most job openings for developers.
- Males remain dominant in the developer role.
- Majority of the age of developers are in the late 20s and 30s.
- JavaScript is the most secured language for jobs.

APPENDIX

- Bar Chart of Job Postings



JOB POSTINGS



POPULAR LANGUAGES

