



Stack Overflow Developer Survey

Deepti Patnaik

2024 Apr 11

OUTLINE



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

EXECUTIVE SUMMARY



- Programming Language Trends
- Trends-Visualizing current and expected
 - Programming Language
 - Database
 - Web framework Trends
 - OS Platform
- Discussions-Overall findings
- Conclusion
- Appendix

INTRODUCTION



- Methodology-Current technology usage and future trends based on different demographics.
- Result-Draw conclusions based on visualizations used.
- Dashboards
 - Findings
 - Implications

METHODOLOGY



- Data Sources :

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m5_survey_data_demographics.csv

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m5_survey_data_technologies_normalised.csv

- Extract and Explore Datasets
 - Sanitized Dataset
 - Exploratory Data Analysis
- Data Visualizations
- Dashboard creation using IBM Cognos

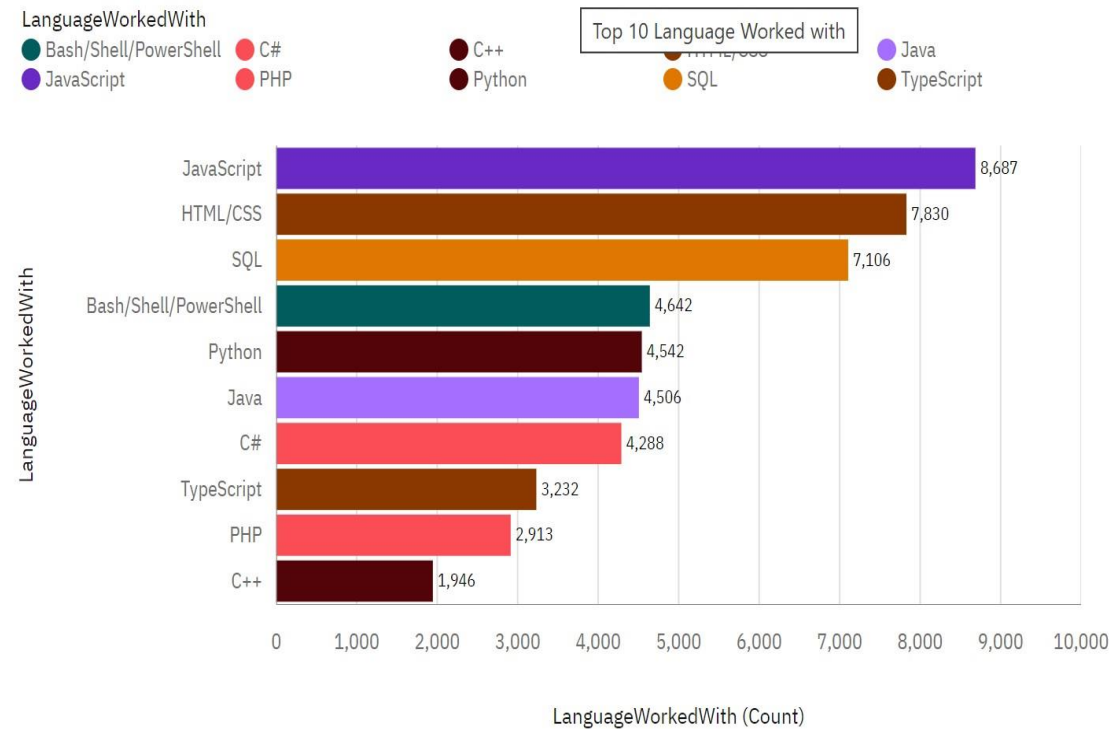
RESULTS

- Most of the Respondents chose Javascript and Html/CSS
- Few of the Respondents are currently using PHP and C++
- Future estimates-very few may choose Go and Kotlin
- Majority of the Respondents are currently working with MYSQL
- Data shows that in future PostgreSQL will be desired
- Firebase and Elastic are barely considered by most respondents
- Dashboards show Top 10 Languages, Webframeworks and Platforms preferred by most respondents
- It's evident that majority of the respondents identify as male.

PROGRAMMING LANGUAGE TRENDS

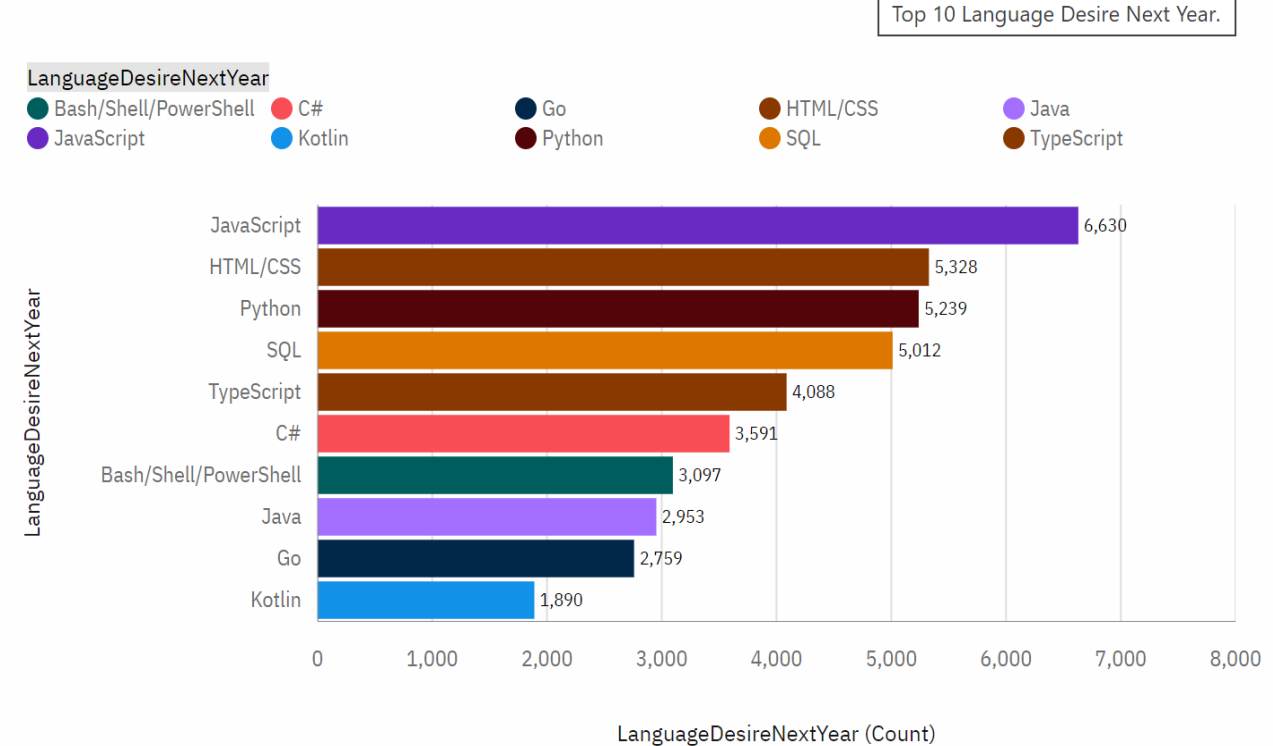
Current Year

Top 10 Language Worked with



Next Year

Top 10 Language Desire Next Year.



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Javascript and Html/CSS are mostly used
- PHP, C++ are not currently not favored
- Go and Kotlin will be less desired in future.
- Great interest in TypeScript

Implications

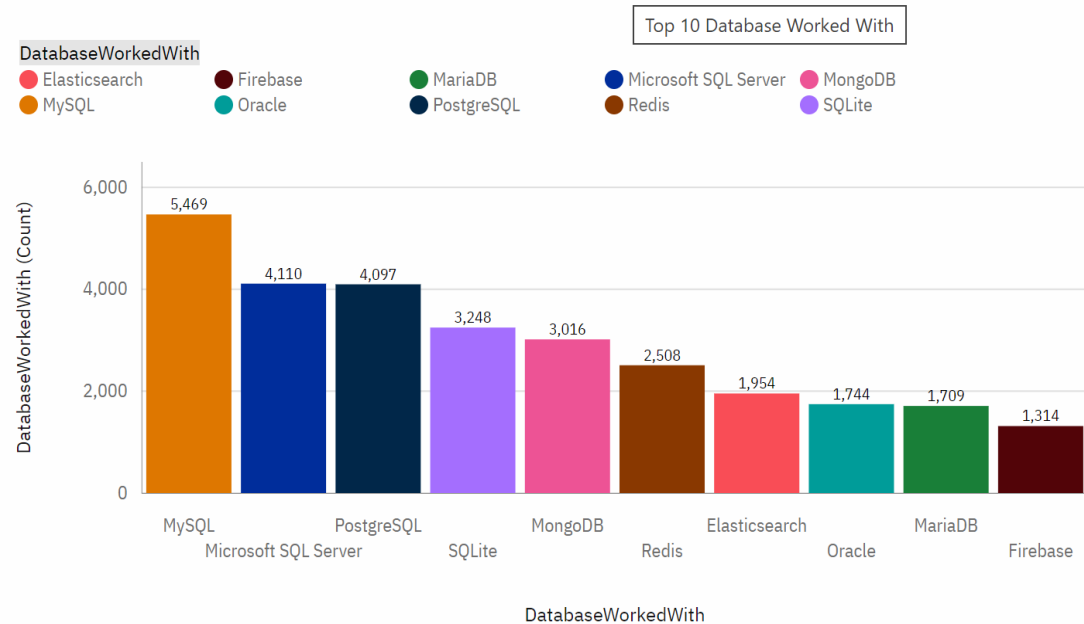
- Most of our respondents desire Javascript and Html/CSS
- Few of the respondents are currently using PHP or C++
- In the future we estimate that very few respondents will use Go and Kotlin
- Possible developers migration from JavaScript to TypeScript.

DATABASE TRENDS

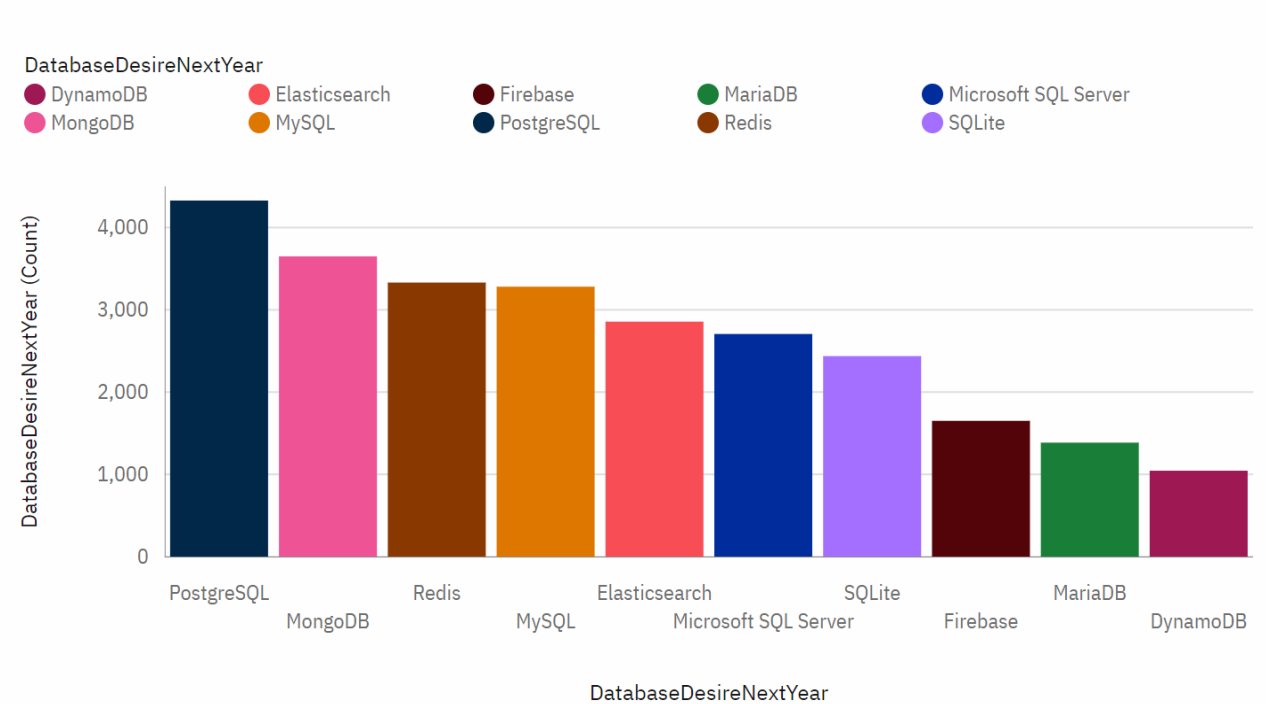
Current Year

Next Year

Top 10 Database Worked With



Top 10 Database Desire Next Year.



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- According to current data MySQL is most used.
- Lack of interest in Microsoft SQL server.
- Future trend shows an increasing demand for PostgreSQL
- Firebase and Elastic search are barely used.

Implications

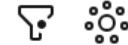
- Most respondents are currently working with MySQL
- With developing technology it seems there will be an increase in demand for PostgreSQL and MongoDB.
- Microsoft SQL server and SQLite losing its demand in the market.

DASHBOARD

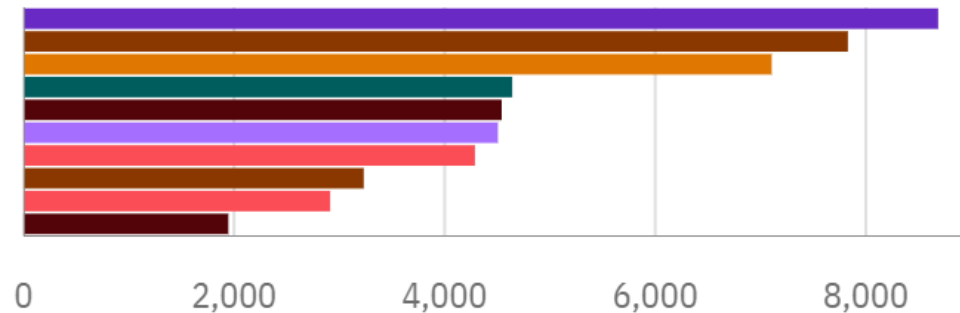
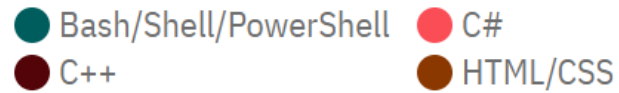


<https://github.com/DeeptiVeena/Capstone-Project/blob/main/Capstone%20Project.pdf>

Top 10 Language Worked with



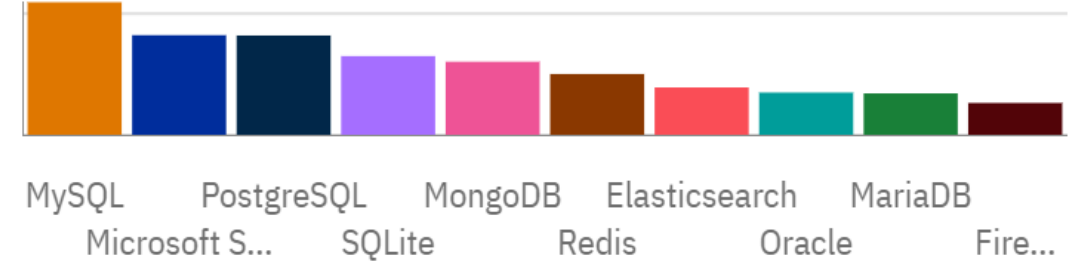
LanguageWorkedWith



Top 10 Database Worked With



DatabaseWorkedWith



Platform Worked With



Top 10 Web Frame Worked With



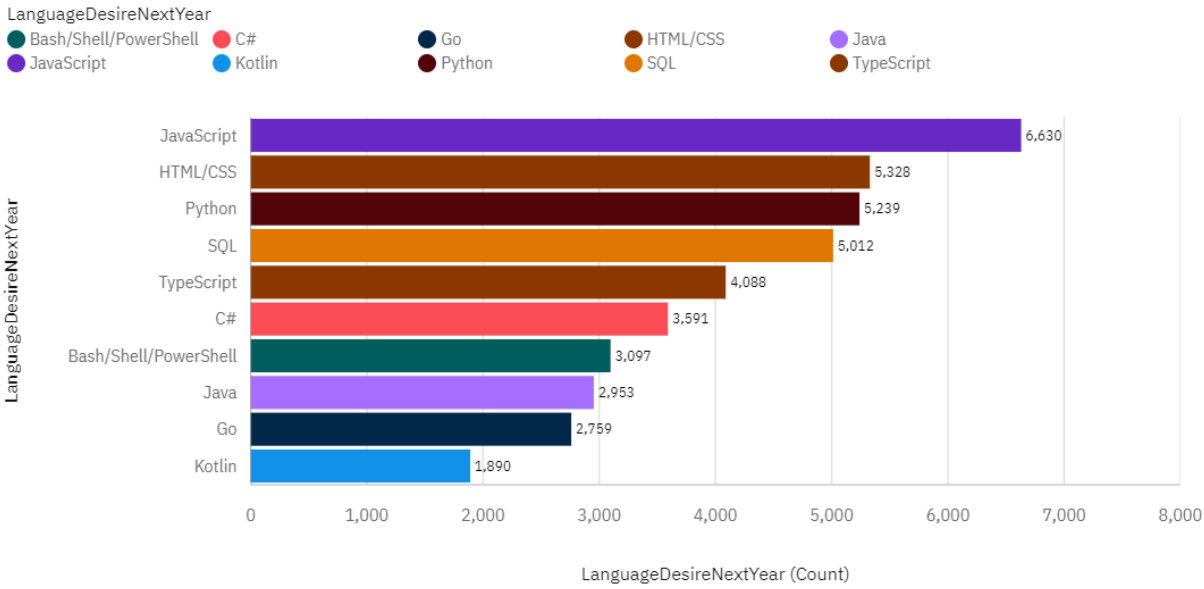
WebFrameWorked...



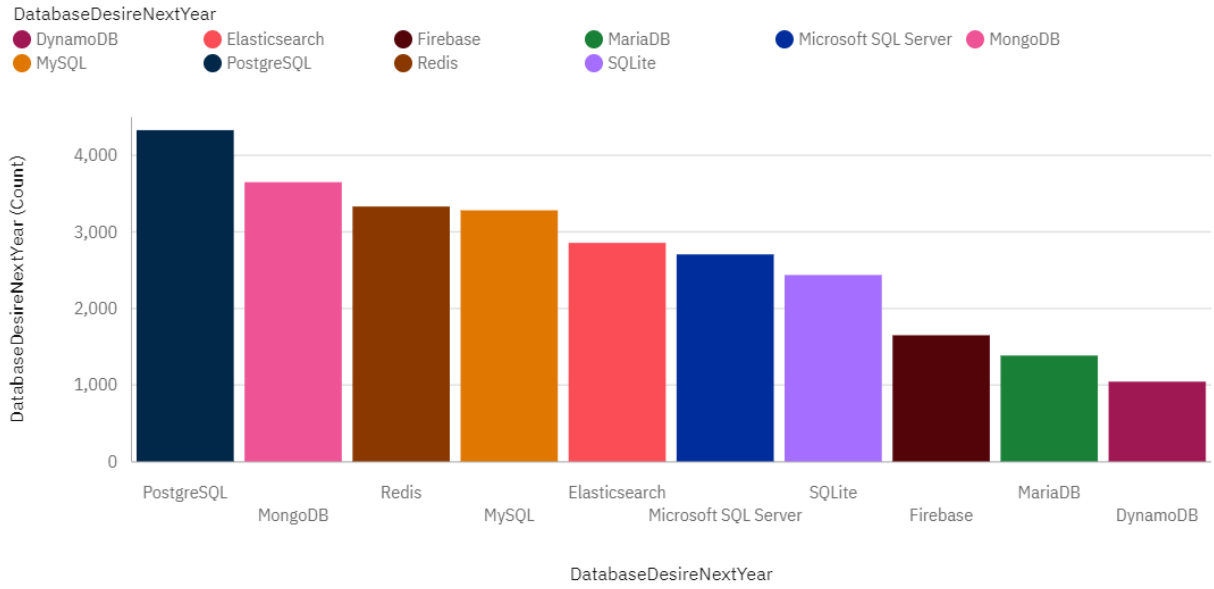
WebFrameWorkedWith



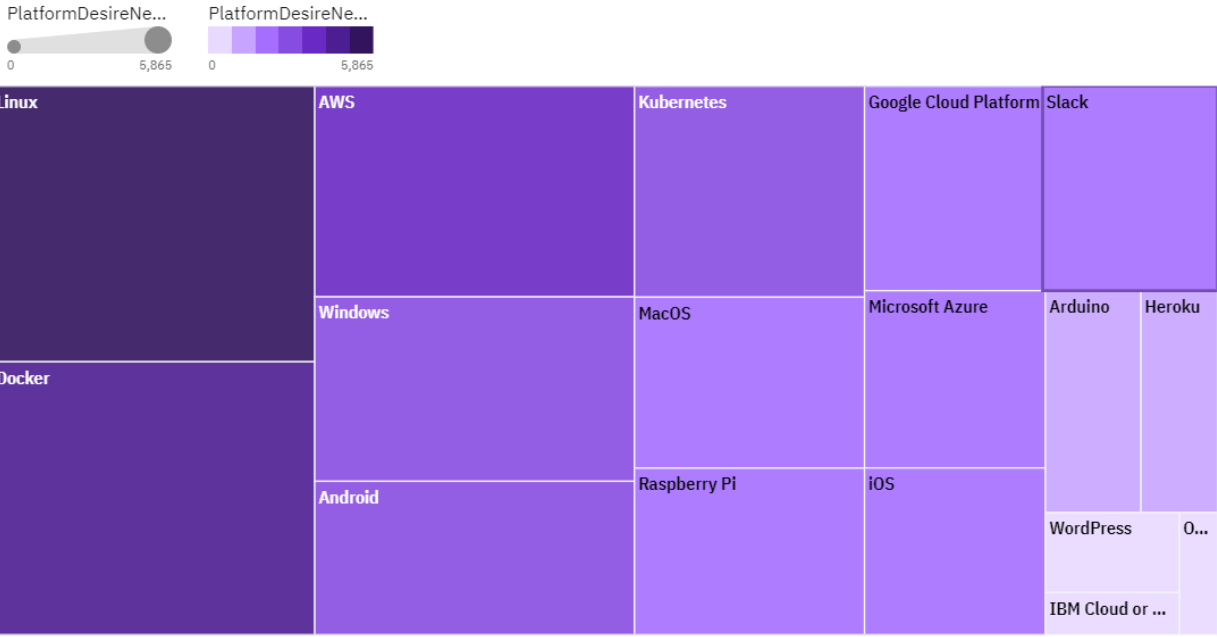
Top 10 Language Desire Next Year.



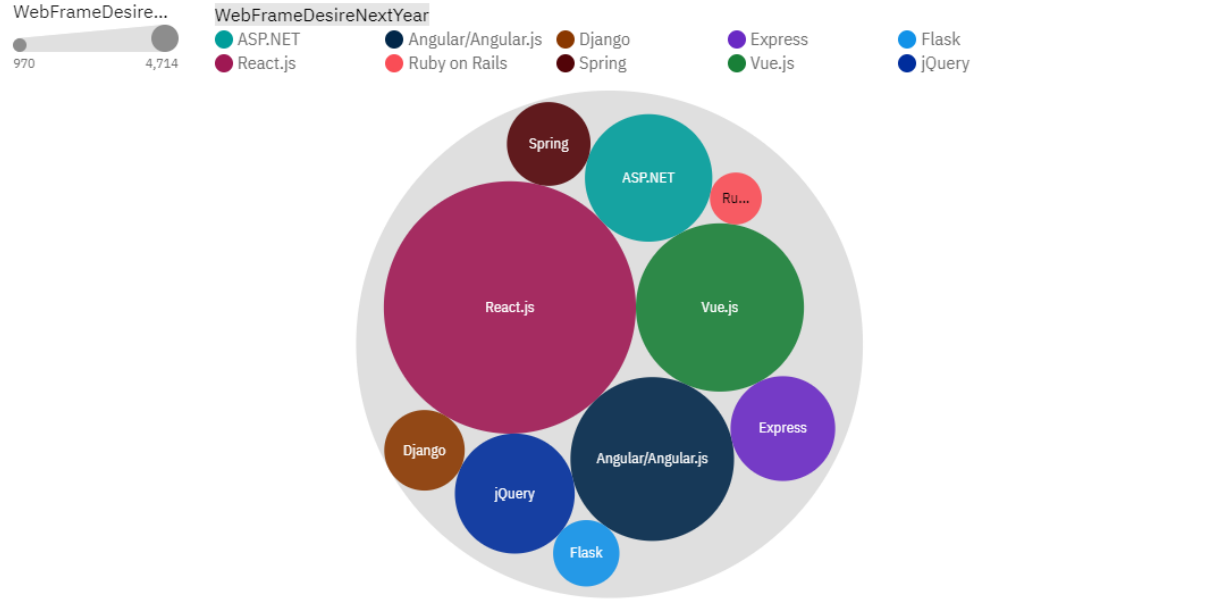
Top 10 Database Desire Next Year.



Platform Desire Next Year

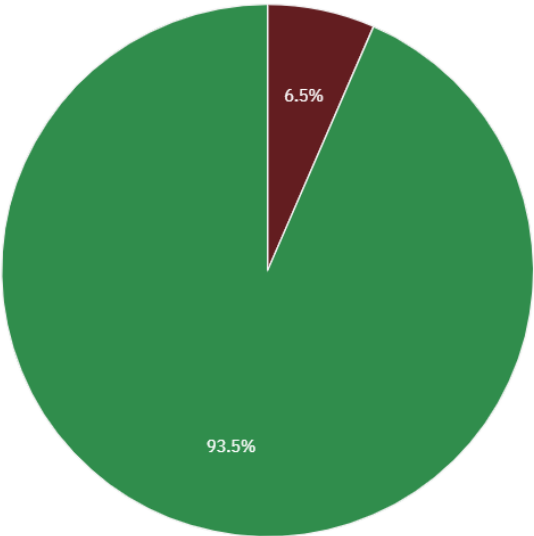


Top 10 Web Frame Desire Next Year.



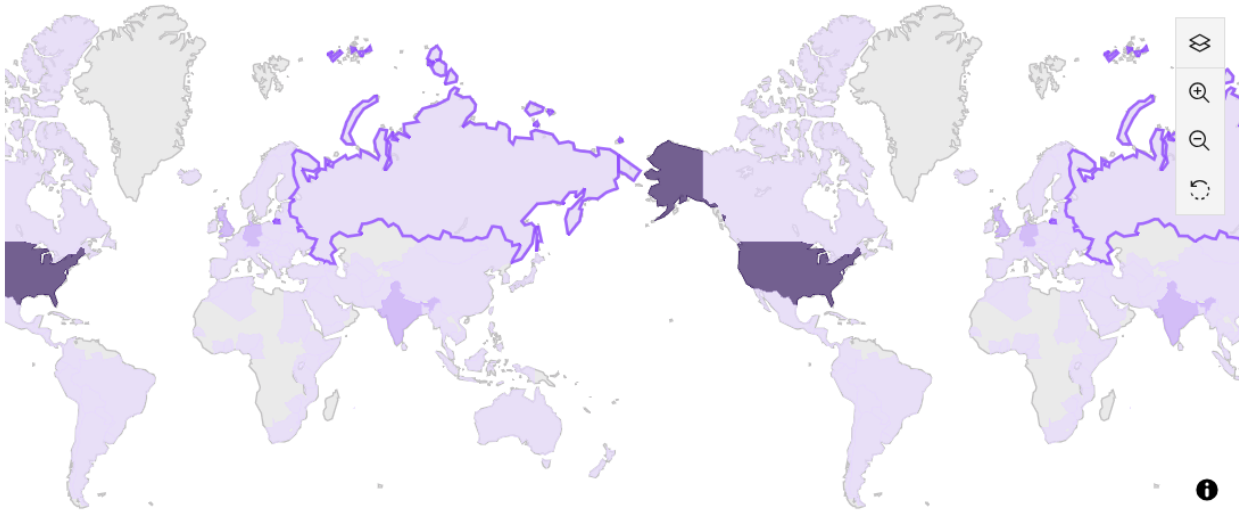
Respondent by Gender

Gender
● Woman ● Man

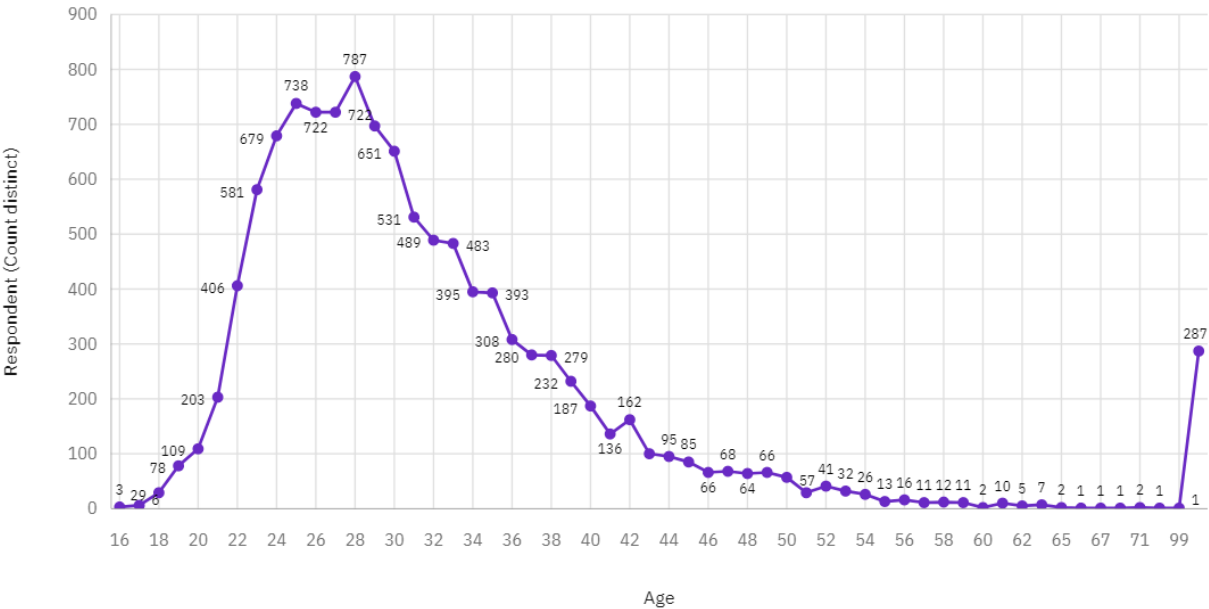


Respondent Count for Countries

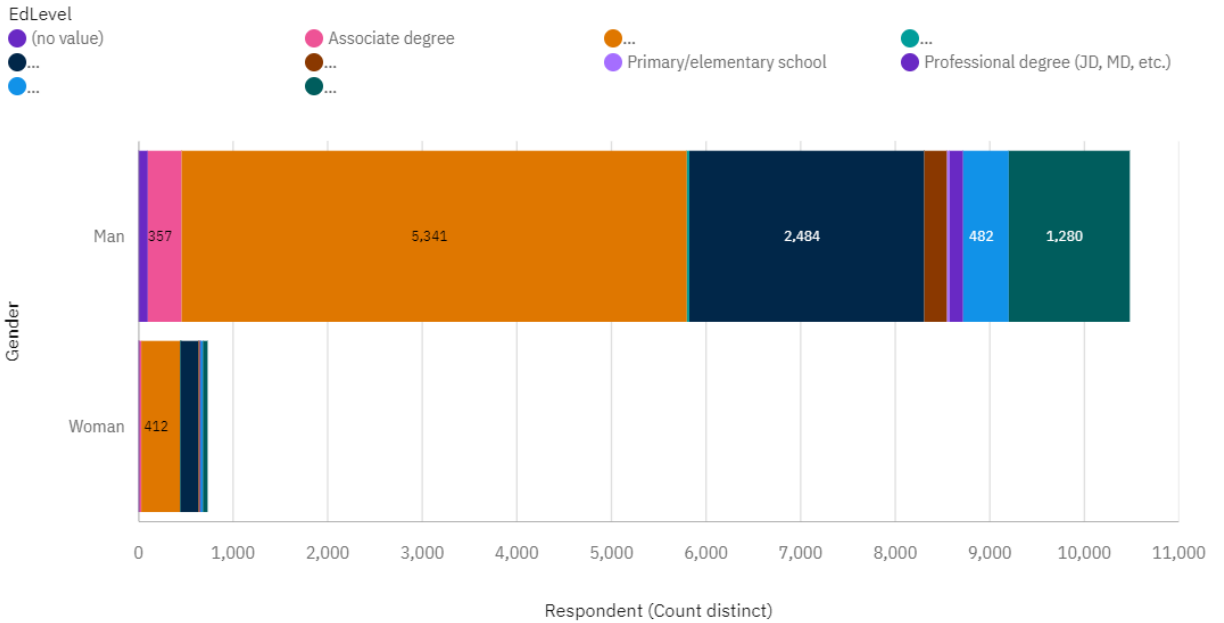
Respondent (Count)
1 3,127



Respondent by Age



Respondent by Gender colored by Education Level



DISCUSSION



- Dashboards shows top languages, Webframeworks, platforms preferred by most respondents.
- There is an increasing popularity for MongoDB and PostgreSQL

OVERALL FINDINGS & IMPLICATIONS

Findings

- Javascript is mostly used.
- Most desired database is MySQL
- United States have more respondents than any other country
- Over 90% young male developers.

Implications

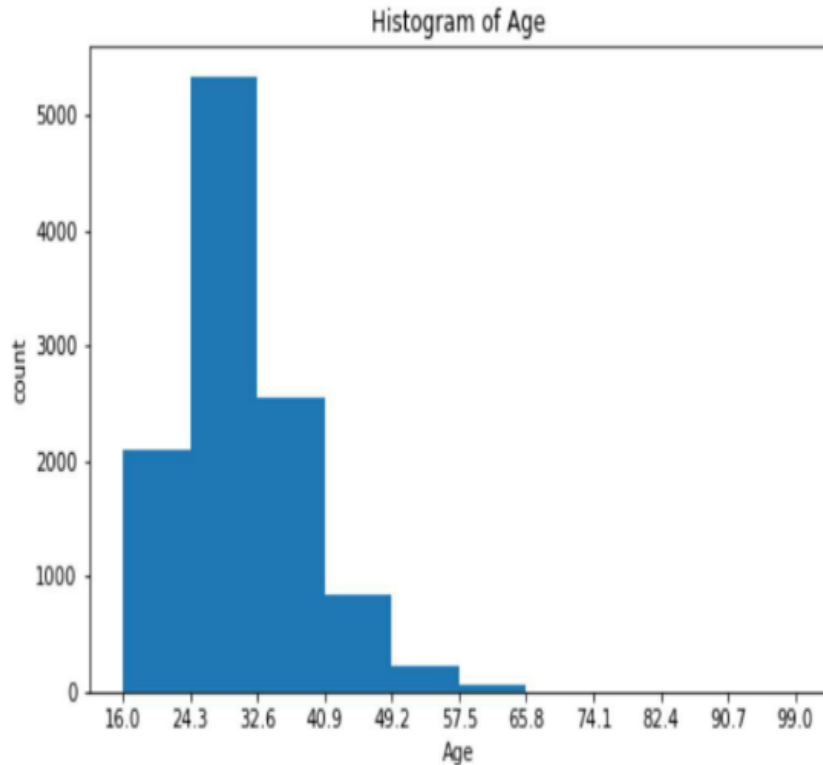
- Javascript will continue to be popularly used.
- Most SQL developers may change to PostgreSQL and MongoDB developer in future.
- Majority of respondents have identified as male.
- Majority young developers are not post graduates.

CONCLUSION

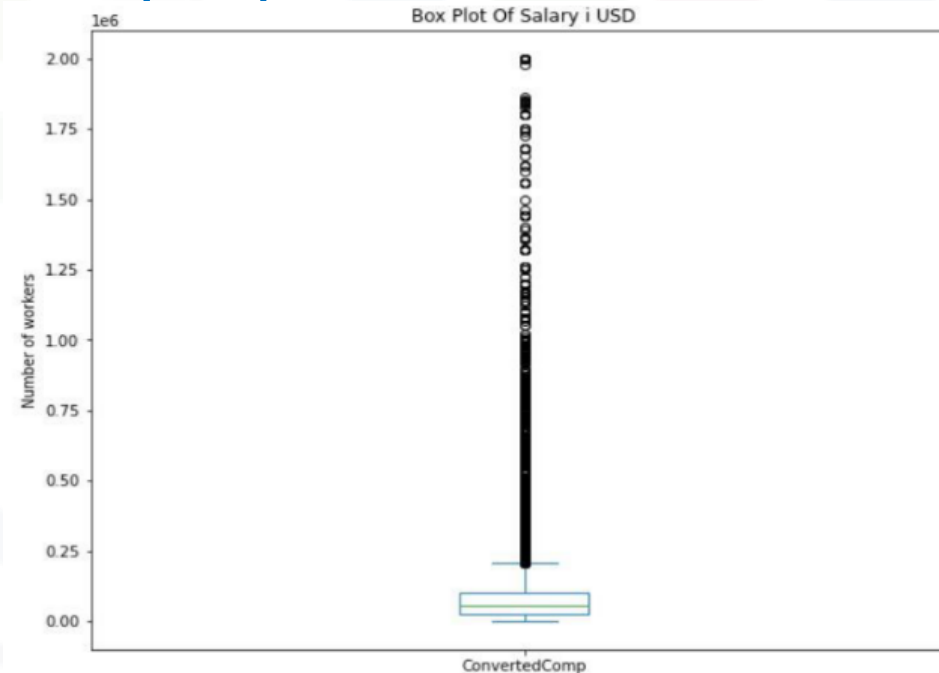


- Javascript is the most preferred language
- MySQL is the most preferred database
- Majority of the respondents identify as men
- PostgreSQL and MongoDB are continuing to become popular.

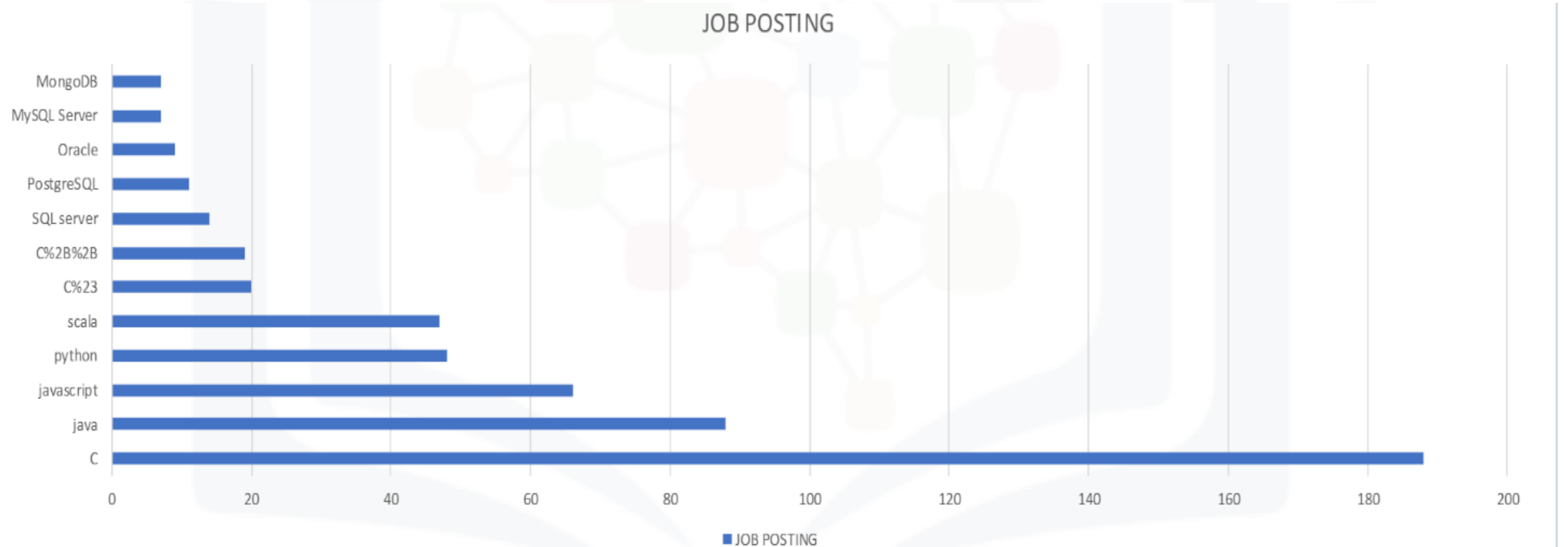
APPENDIX



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



JOB POSTINGS



POPULAR LANGUAGES

