



Current technology usage and trends

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OUTLINE



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EXECUTIVE SUMMARY



- Currently the top programming languages that are used are Java Script, HTML with CSS and SQL
- The DMRS that are mainly used are MySQL, Microsoft SQL server and PostgreSQL
- The respondents wish to learn Java Script, HTML with CSS and Python
- The most popular OS (Platform) the respondents would like to learn is Linux
- The analysis is based on the data from more than 11000 respondents, who live predominantly live in USA

INTRODUCTION



The following questions will be covered in this analysis:

- What is the current state in information technology regarding used technologies?
- What are possible future trends in information technologies
- What kind of people were the respondents including their gender, age and education?

METHODOLOGY



- The data for the analysis is based on survey results
- The survey results were in 2 csv files:
 - Survey data technologies
 - Survey data demographics
- The analysis was performed using Python and Pandas library
- During the analysis the data was cleaned and transformed to suitable formats
- The dashboard was created using IBM Cognos platform
- The charts for Job postings and Salary distribution for popular languages were made in Microsoft Excel

RESULTS

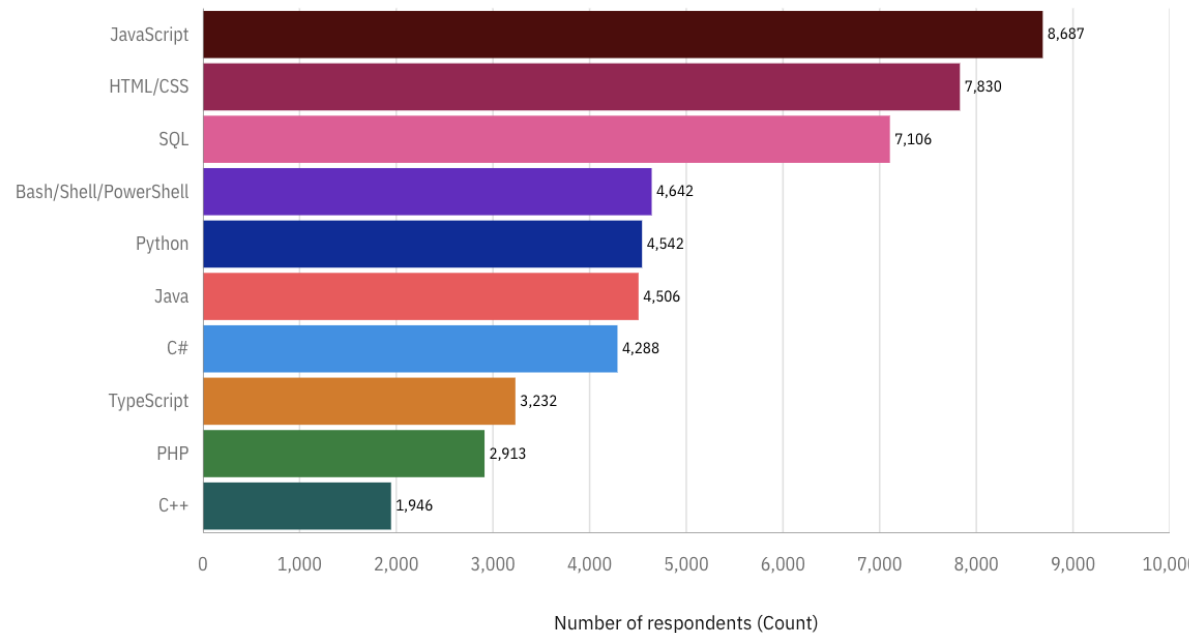
During the analysis the following work has been done:

- The data was prepared for analysis
- The data was analysed with Python and Pandas
- The data was imported in IBM Cognos platform
- The dashboard with the current technology usage was made
- The dashboard with future technology trend was made
- The dashboard with information of the demographics was made
- The analysis report was compiled

PROGRAMMING LANGUAGE TRENDS

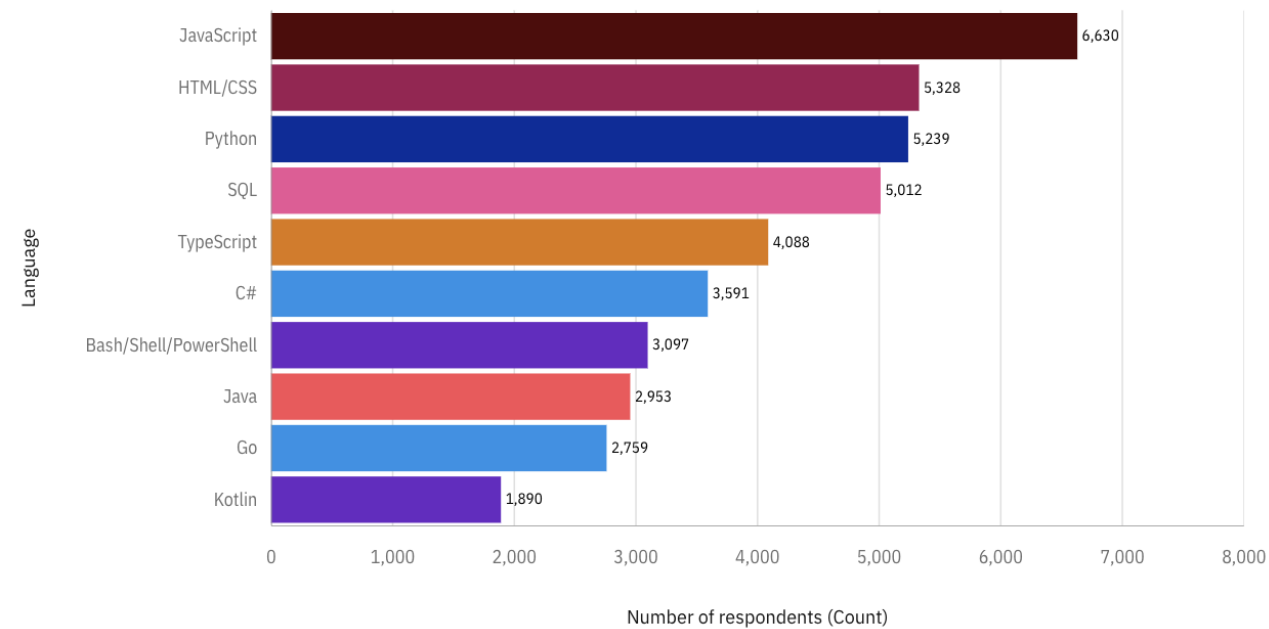
Current Year

Top 10 Language respondents worked with



Next Year

Top 10 Languages that respondents desire to learn



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is most used language
- HTML and CSS are also highly popular
- SQL is nearly as popular as HTML and CSS

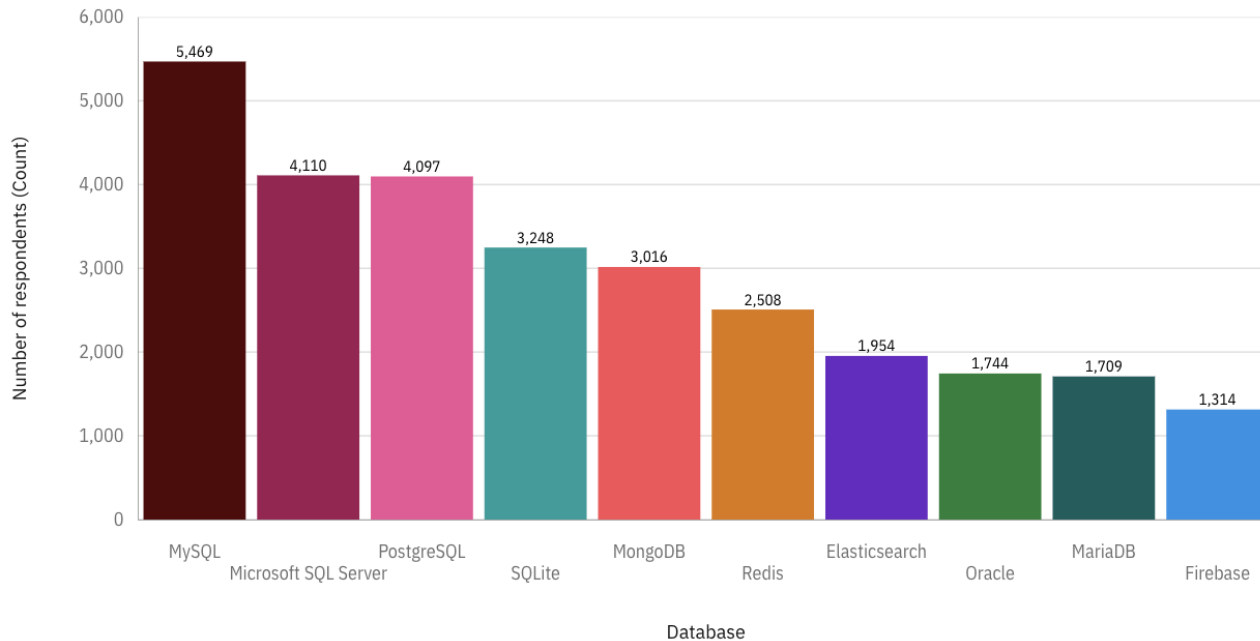
Implications

- Development of online projects requires knowledge of web technologies like JavaScript, CSS and HTML
- Nearly all projects need to process data which explains the popularity of SQL

DATABASE TRENDS

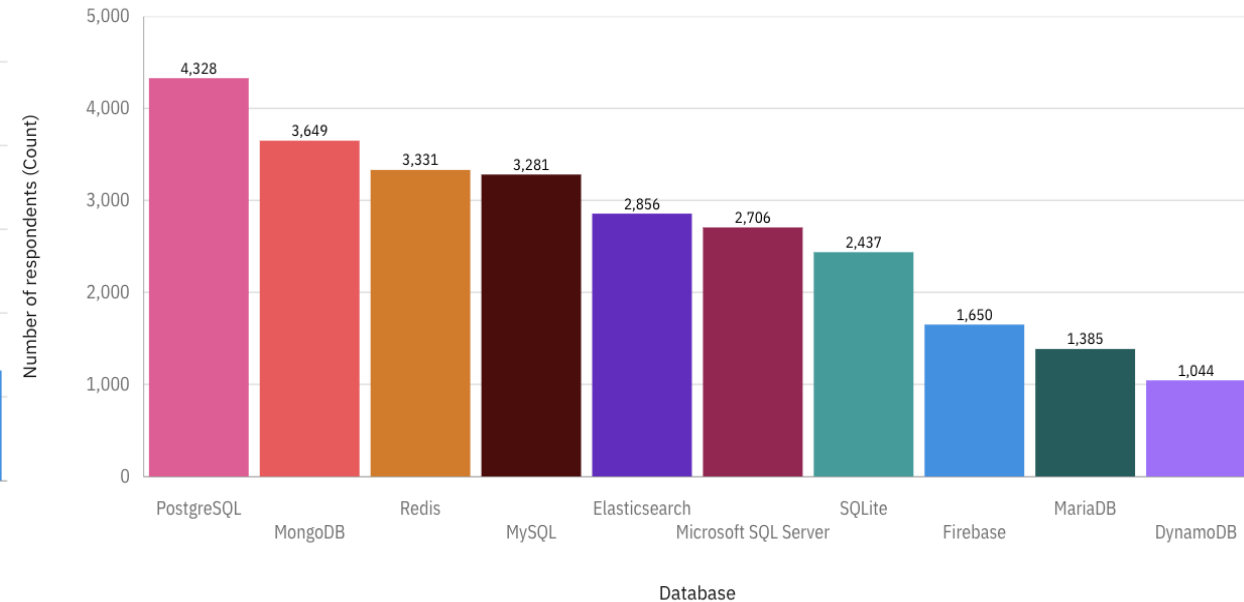
Current Year

Top 10 Database respondents worked with



Next Year

Top 10 Databases that respondents desire to learn



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is most widely used RDBMS
- Microsoft SQL server and PostgreSQL are also popular

Implications

- Most respondents showed their desire to learn PostgreSQL, which will probably make it more popular in the future
- MongoDB and Redis are also in trends
- The popularity of Microsoft SQL server is likely to subside

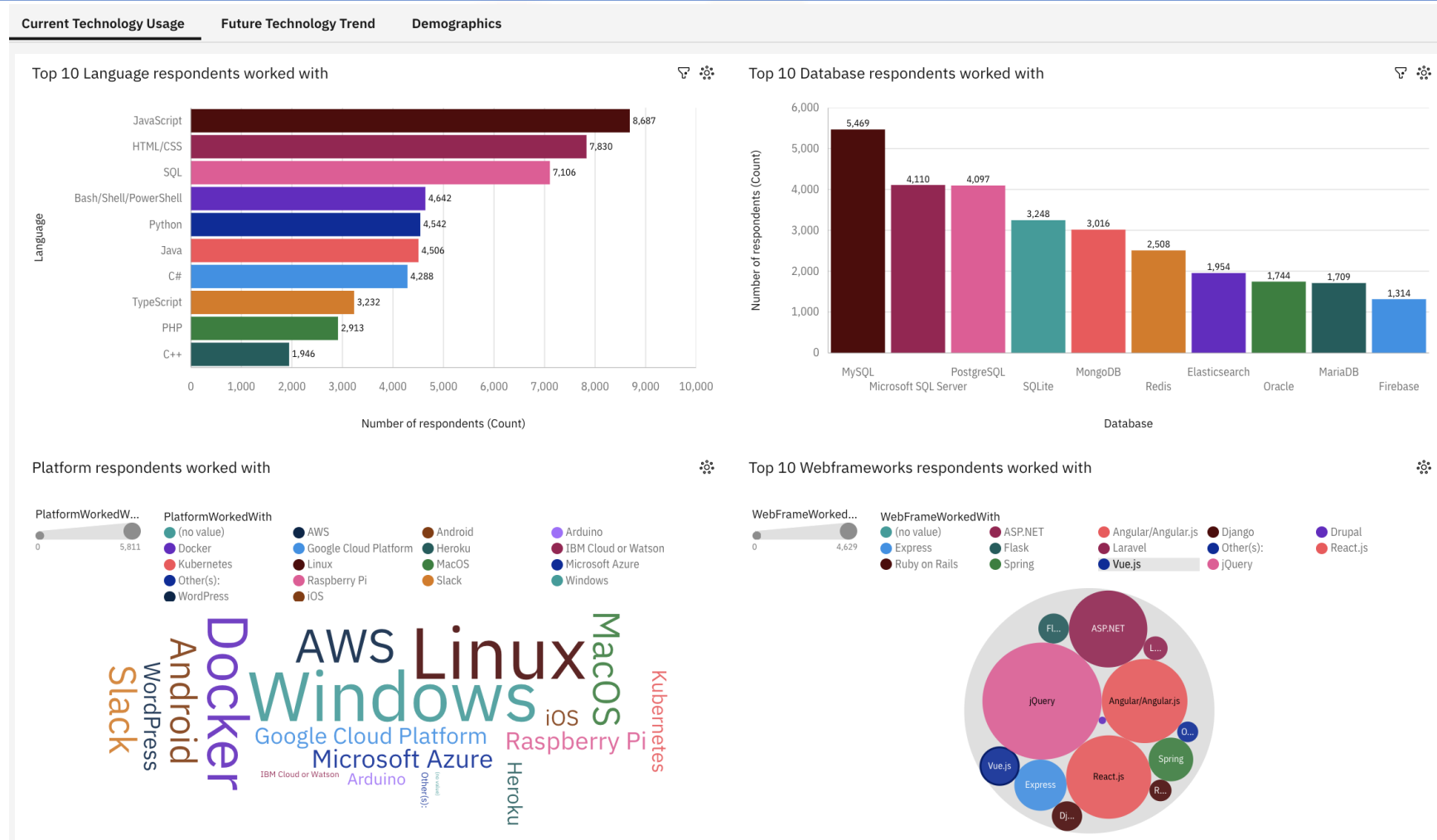
DASHBOARD



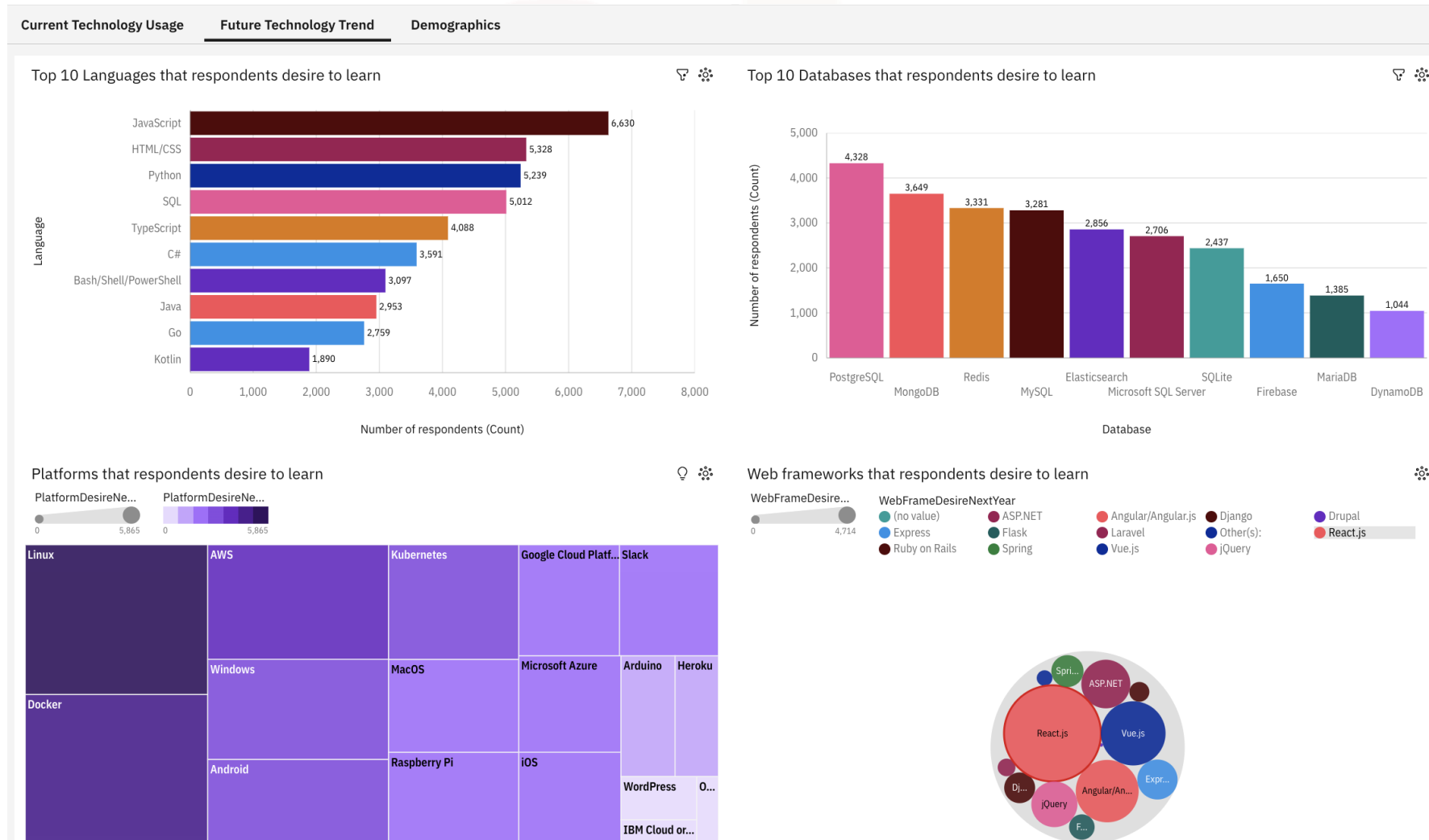
The GitHub link of the Cognos dashboard:

<https://github.com/Alexogl/TestRepositoryPublic/blob/main/Assignment.pdf>

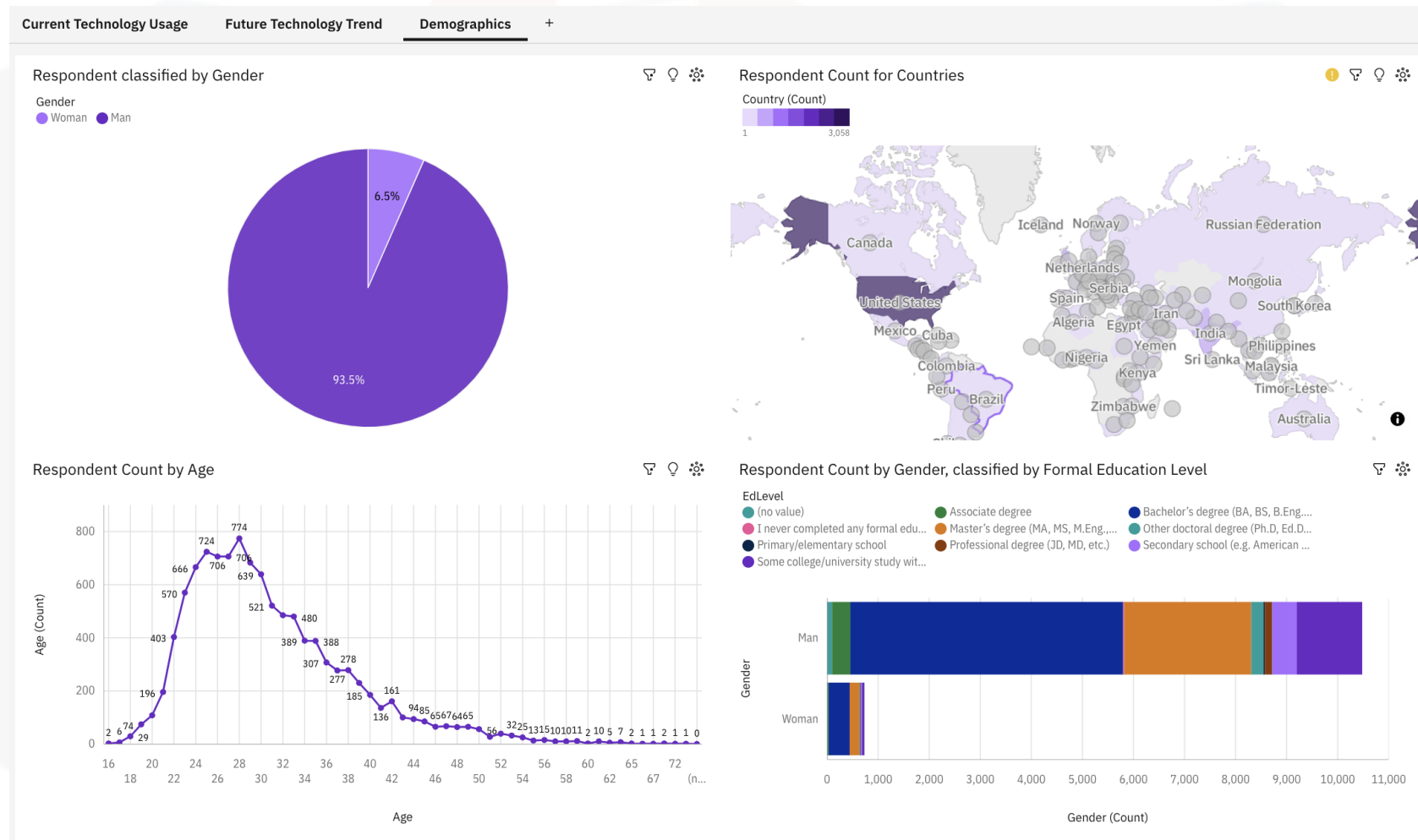
DASHBOARD TAB 1 (Current Tech Usage)



DASHBOARD TAB 2 (Future Tech Trends)



DASHBOARD TAB 3 (Demographics)



DISCUSSION



- Will the gap between languages for WEB and general purpose languages widen?
- What is the reason why so many respondents want to learn React.js?
- Why C# is quite popular, whereas C++ is not in top 10?

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most used language among respondents
- The second place belongs to CSS with HTML
- MySQL is most widely used RDBMS

Implications

- Development of online projects requires knowledge of web technologies like JavaScript, CSS and HTML – this is likely to continue
- The knowledge of RDMS is a must and PostgreSQL is the choice for most respondents

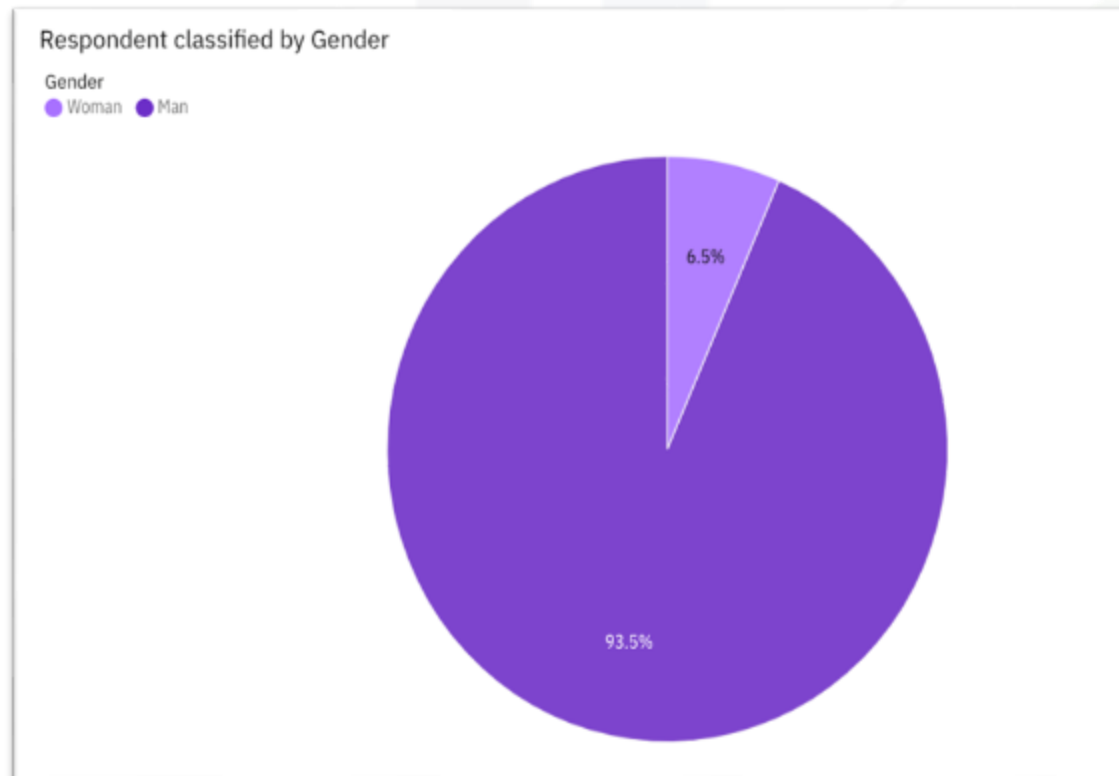
CONCLUSION



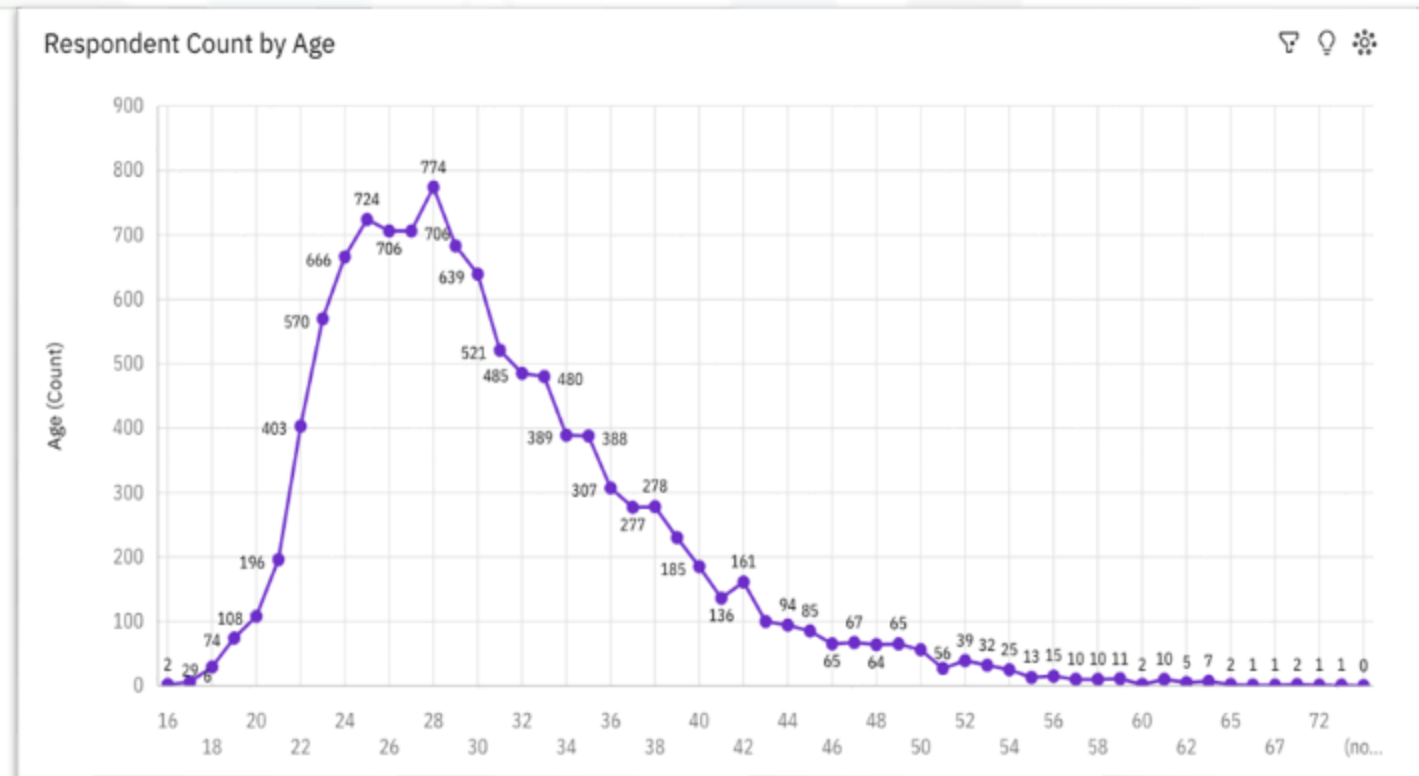
- Currently the top programming languages are Java Script, HTML with CSS and SQL
- The DMRS that are mainly used are MySQL, Microsoft SQL server and PostgreSQL
- The respondents would like to learn Java Script, HTML with CSS, Python and Linux
- The trend for web languages is likely to continue
- The analysis is based on the data from more than 11000 respondents who live predominantly live in the USA

APPENDIX

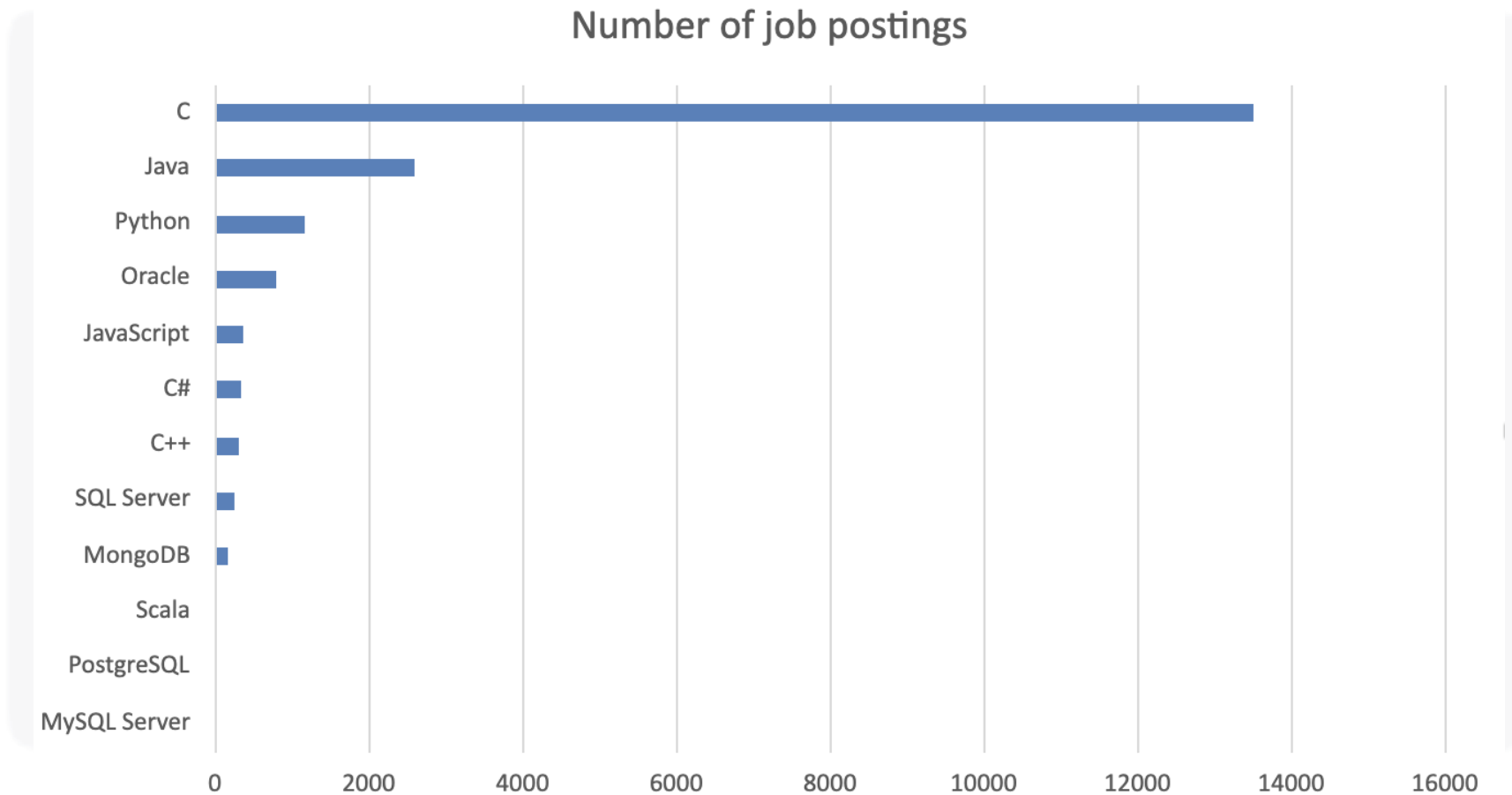
Gender distribution



Age distribution of the respondents



JOB POSTINGS



POPULAR LANGUAGES

