



TECHNOLOGIES, DATABASES TRENDS AND ANALYSIS

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OUTLINE



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

EXECUTIVE SUMMARY



- Trends
 - Current and future Programming Languages
 - Current and future Databases
- Demographics survey
- Technology gaps in countries
- Trend based on gender working with Technologies

INTRODUCTION



About

Analyzing the trends in Software field

Purpose

Identifying skills required for future.

Identifying popular programming Languages.

Identifying popular Databases to work with.

Identifying popular IDEs used

Audience:

Human Resource and Project Managers

METHODOLOGY



- Data Collection
 - Web Scraping
 - APIs
 - Request Library
- Data wrangling
- Exploratory Data Analysis
 - Analyzing data distribution
 - Handling Outliers
 - Correlations
- Data Visualization
- Dashboards

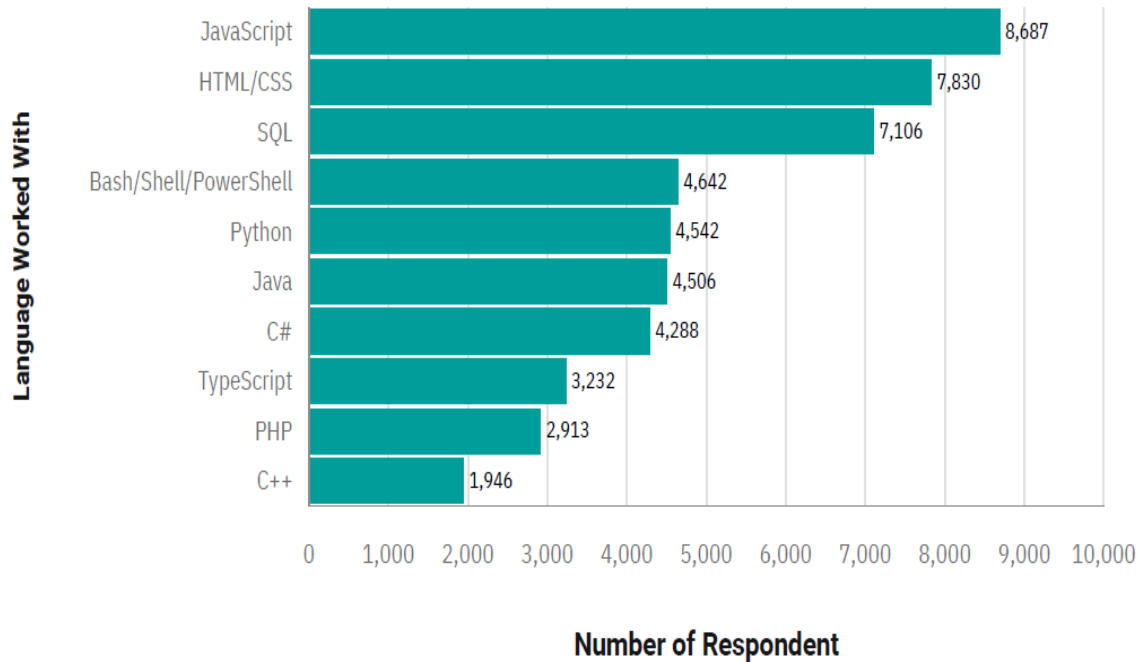
RESULTS



PROGRAMMING LANGUAGE TRENDS

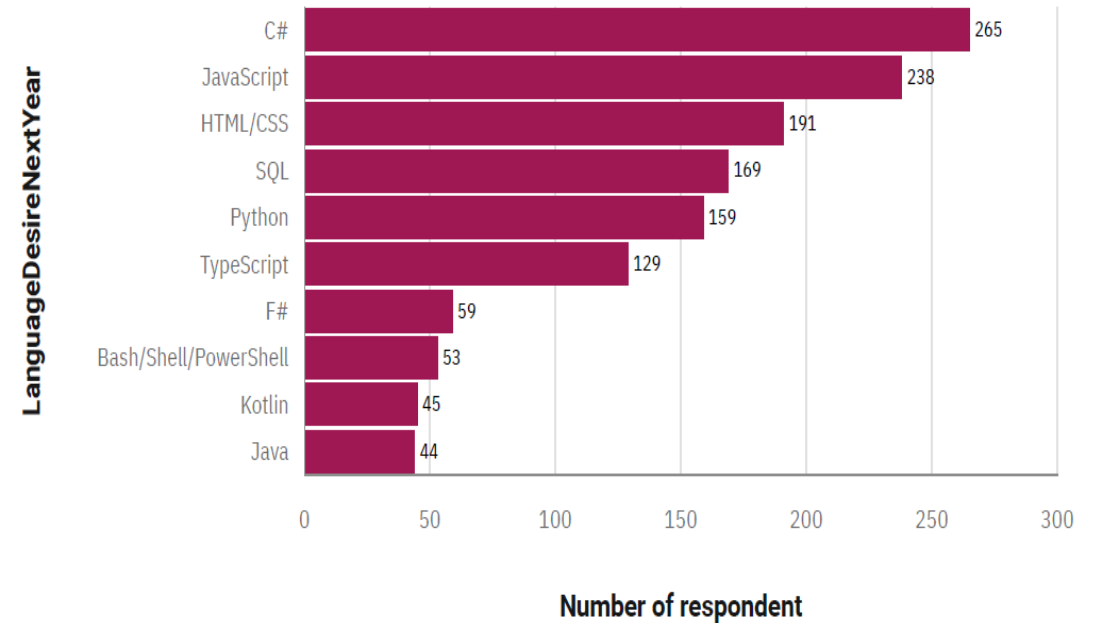
Current Year

Top 10 Languages worked with



Next Year

Top 10 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript seems to be leading language preferred by most.
- Python is fastest growing
- TypeScript has a great potential

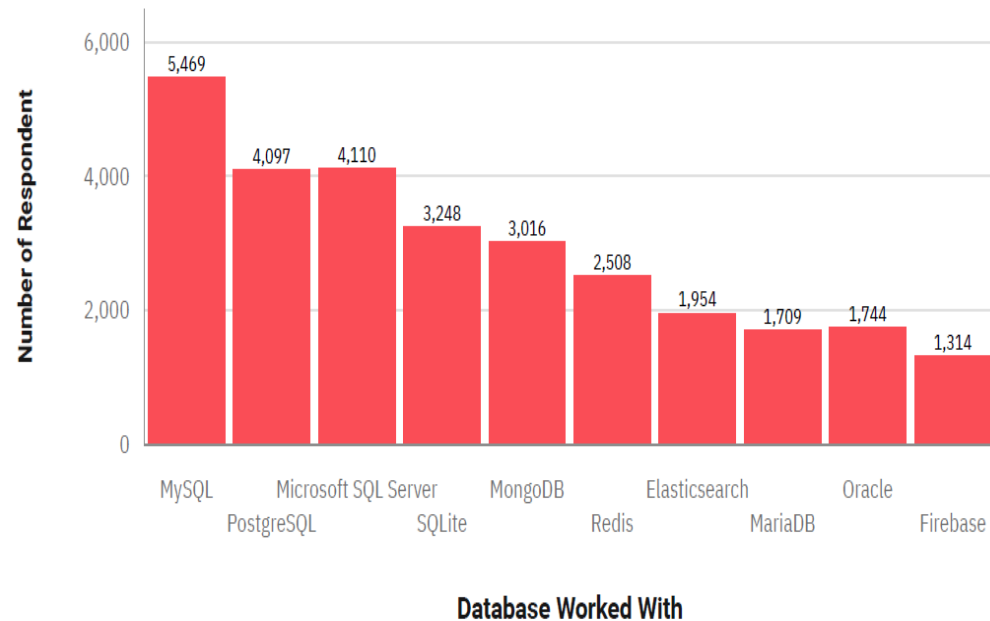
Implications

- Possible migration from JavaScript to other programming languages such as Python and TypeScript.

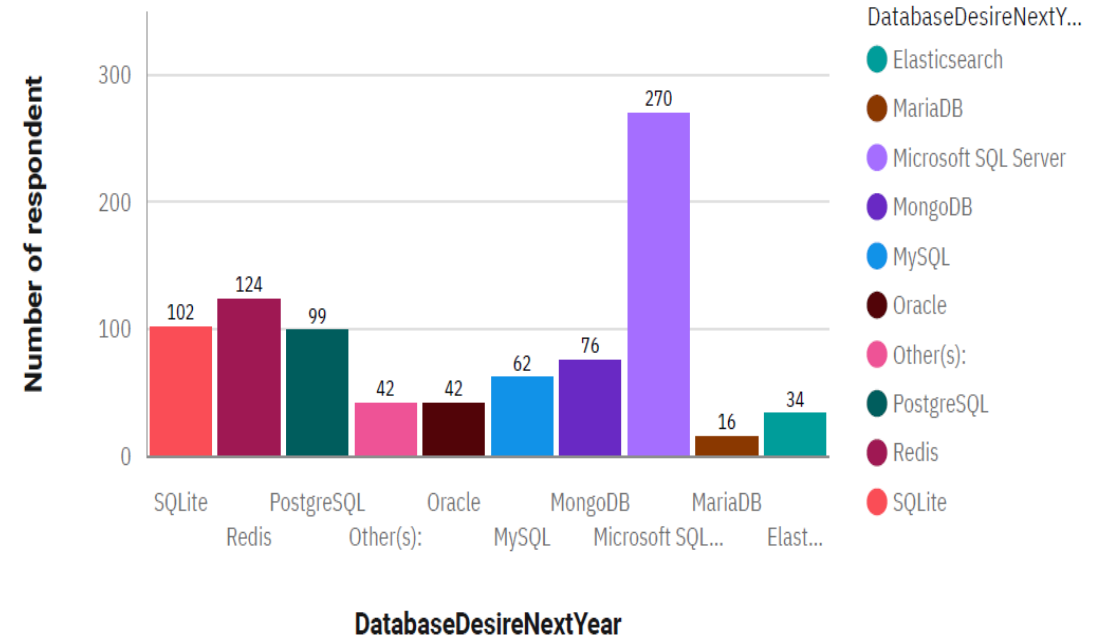
DATABASE TRENDS

Current Year

Top 10 Database Worked With



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL as the most used database.
- Oracle is less preferred.
- Microsoft SQL Server and SQLite has a potential

Implications

- Developers are moving from MySQL to Microsoft SQL Server
- MongoDB and Oracle losing ground in market

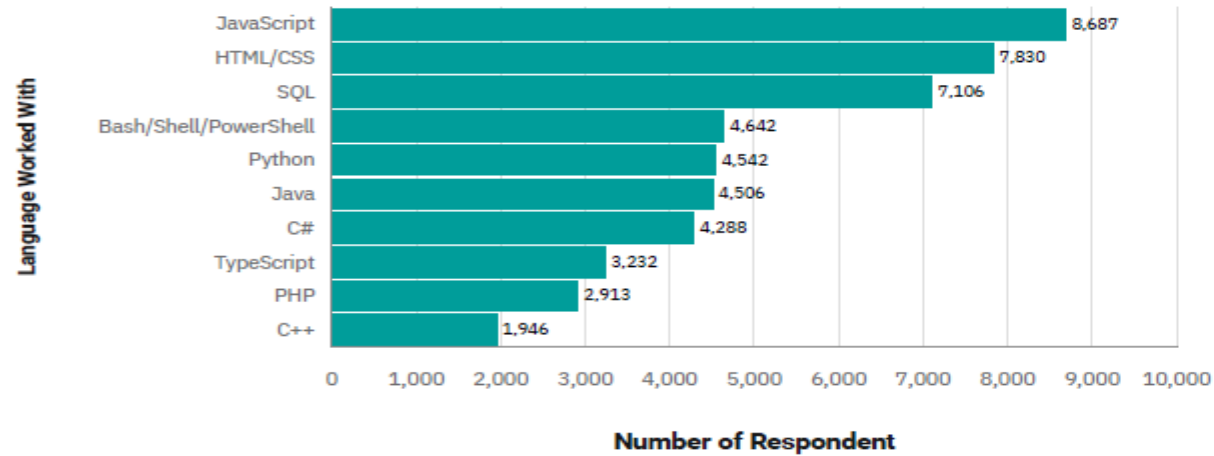
DASHBOARD



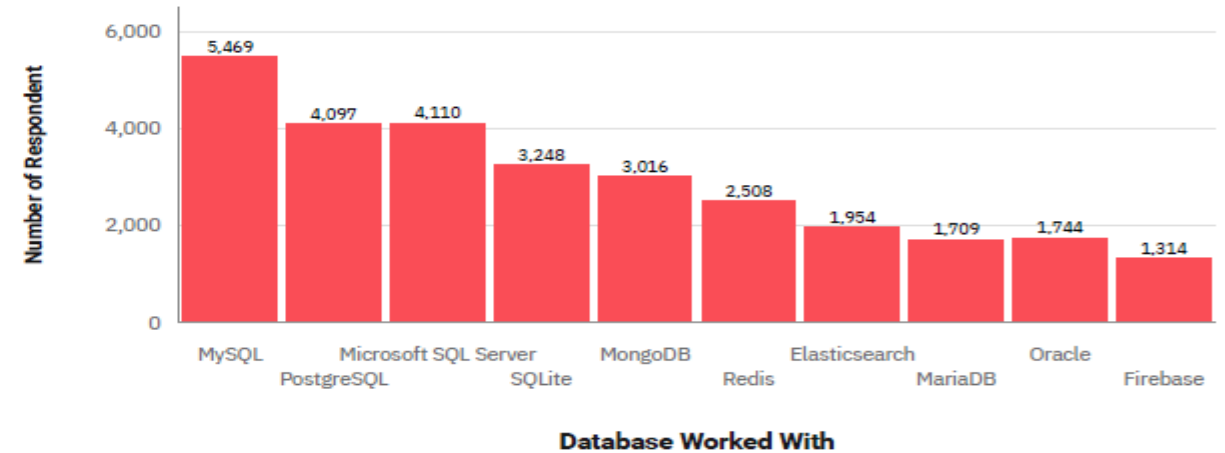
<https://github.com/Naseem-Begum/IBM-Data-Analyst-Capstone-Project/blob/2b5ecfb4cd6f41a5dab7b97d75a2b185ba2cfa76/Building%20a%20dashboard%20with%20IBM%20Cognos%20Analytics.pdf>

CURRENT TECHNOLOGY USAGE

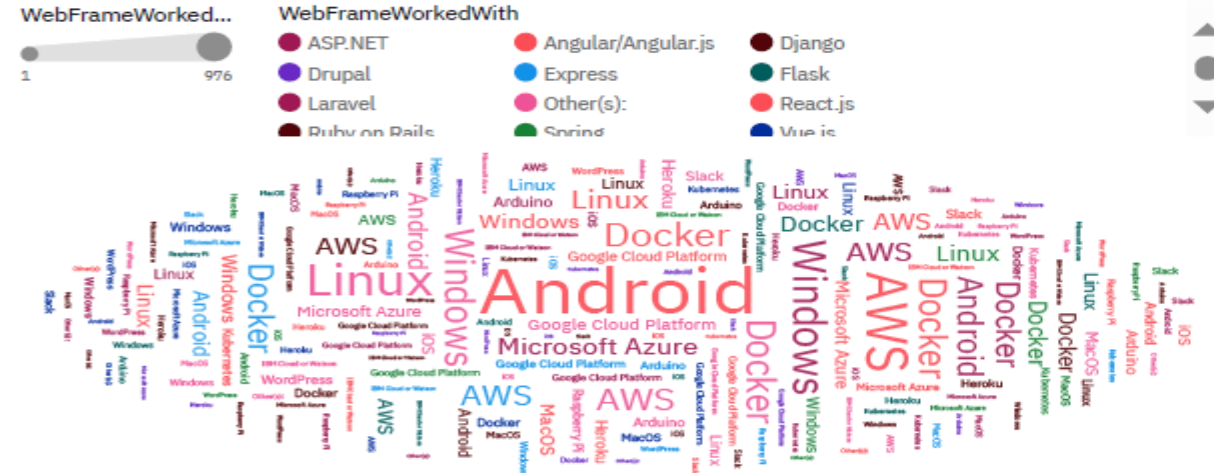
Top 10 Languages worked with



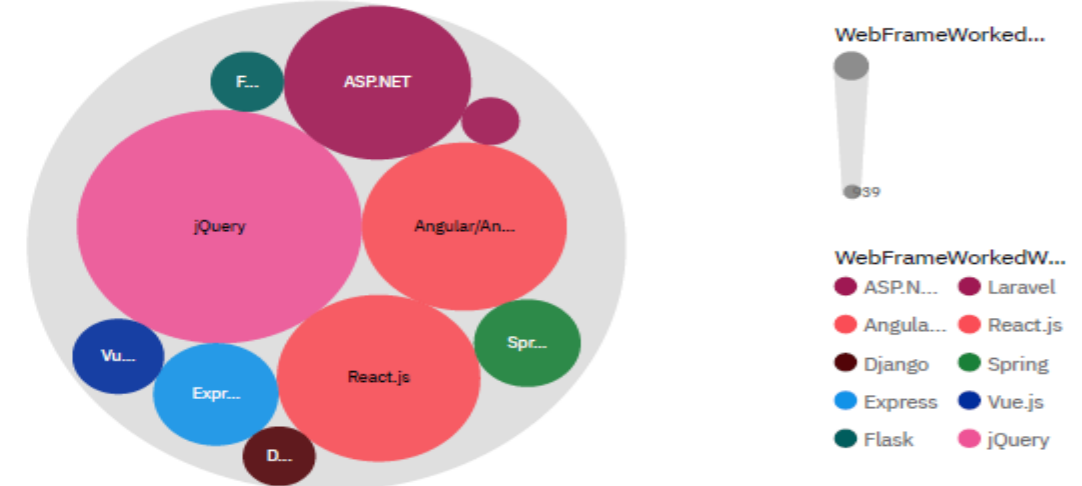
Top 10 Database Worked With



Platform Worked With



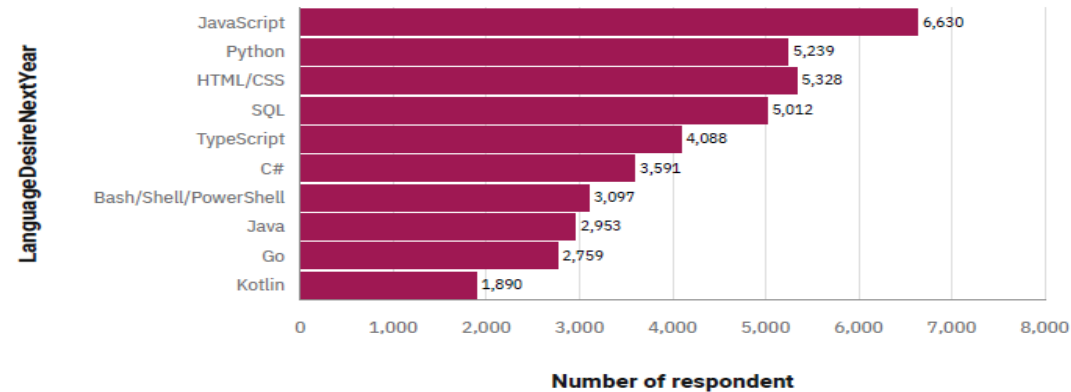
Top 10 Web Frames Worked With



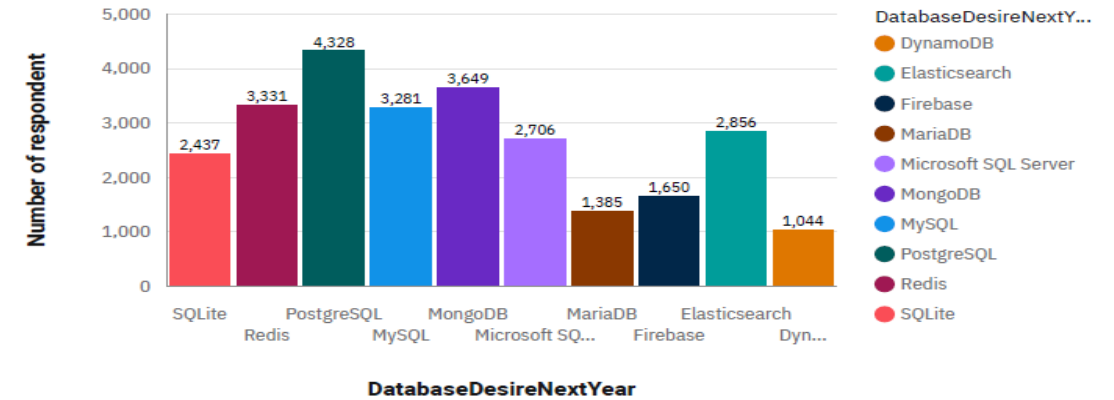
FUTURE TECHNOLOGY TREND

Future Technology Trend

Top 10 Language Desire Next Year



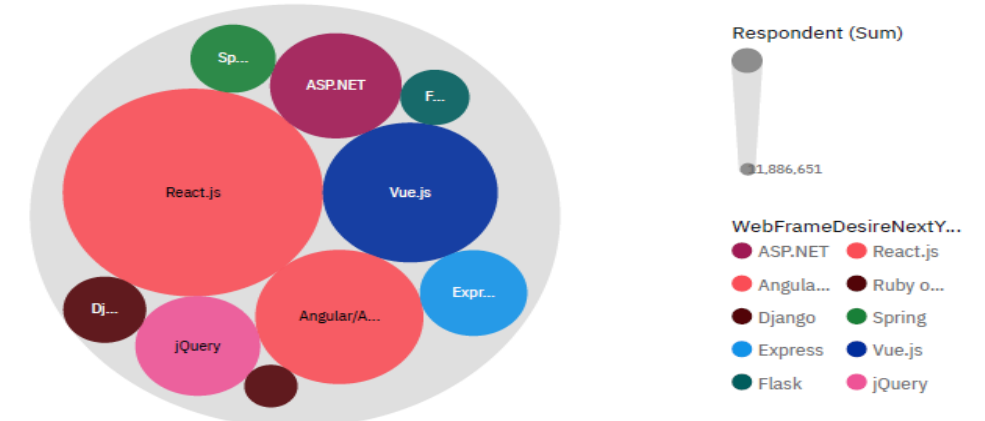
Respondent by DatabaseDesireNextYear colored by DatabaseDesireNextYear



Platform Desire Next Year



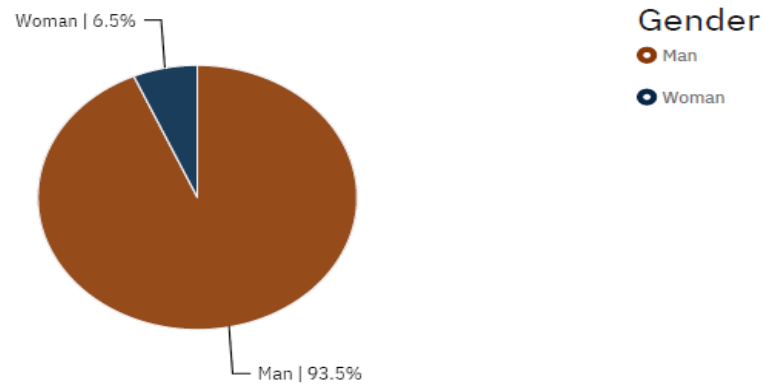
Top 10 Web Frame Desire Next Year



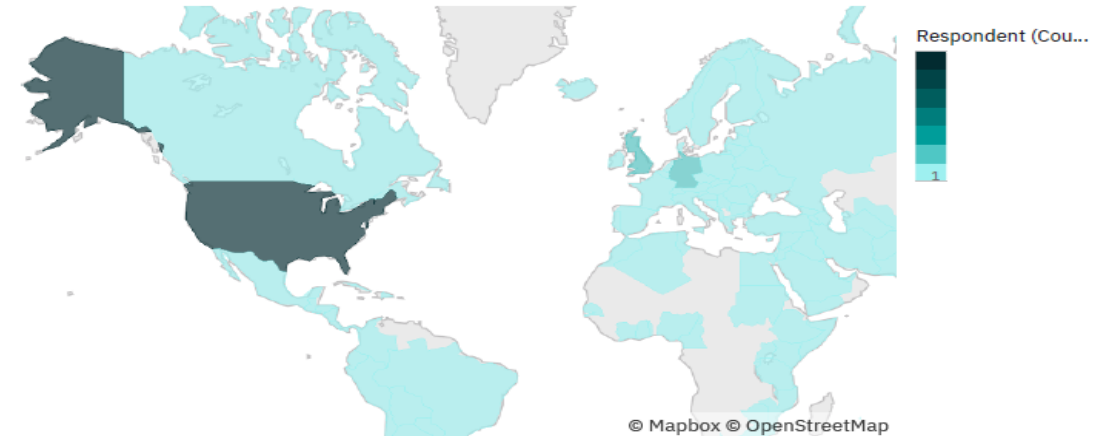
Demographics

Demographics

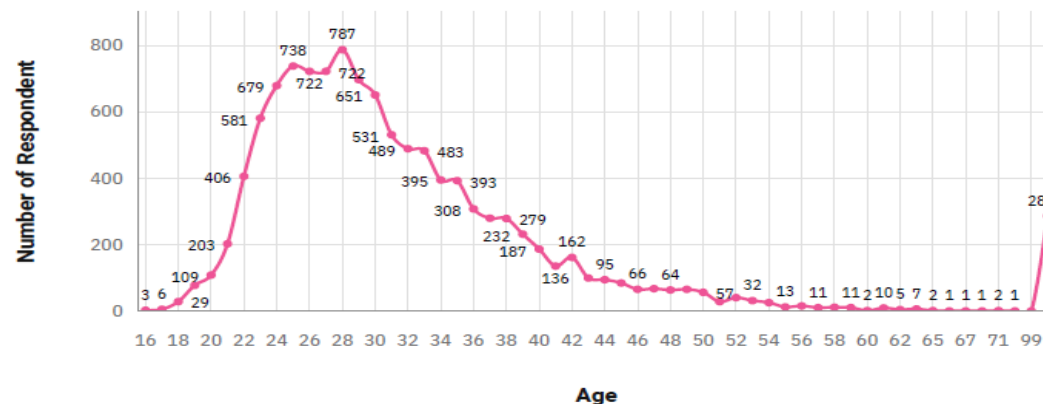
Respondent classified by Gender



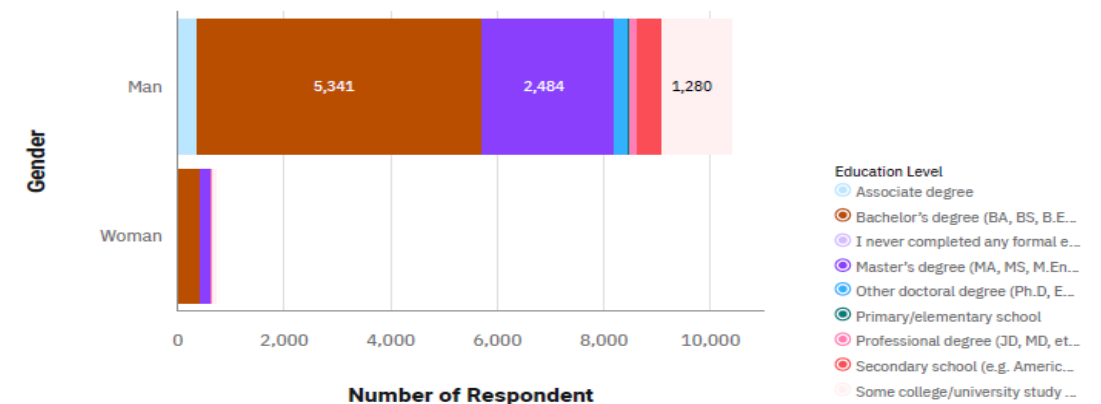
Respondent for Country regions



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Besides JavaScript, developers are also preferring TypeScript
- Most developers are from younger age group.
- Microsoft MySQL Server will be most preferred database in future
- Most developers has Bachelor's degree.

Implications

- Most developers come from developed countries.
- There is a huge difference in the gender and most are men.
- New technologies are overpowering old ones.

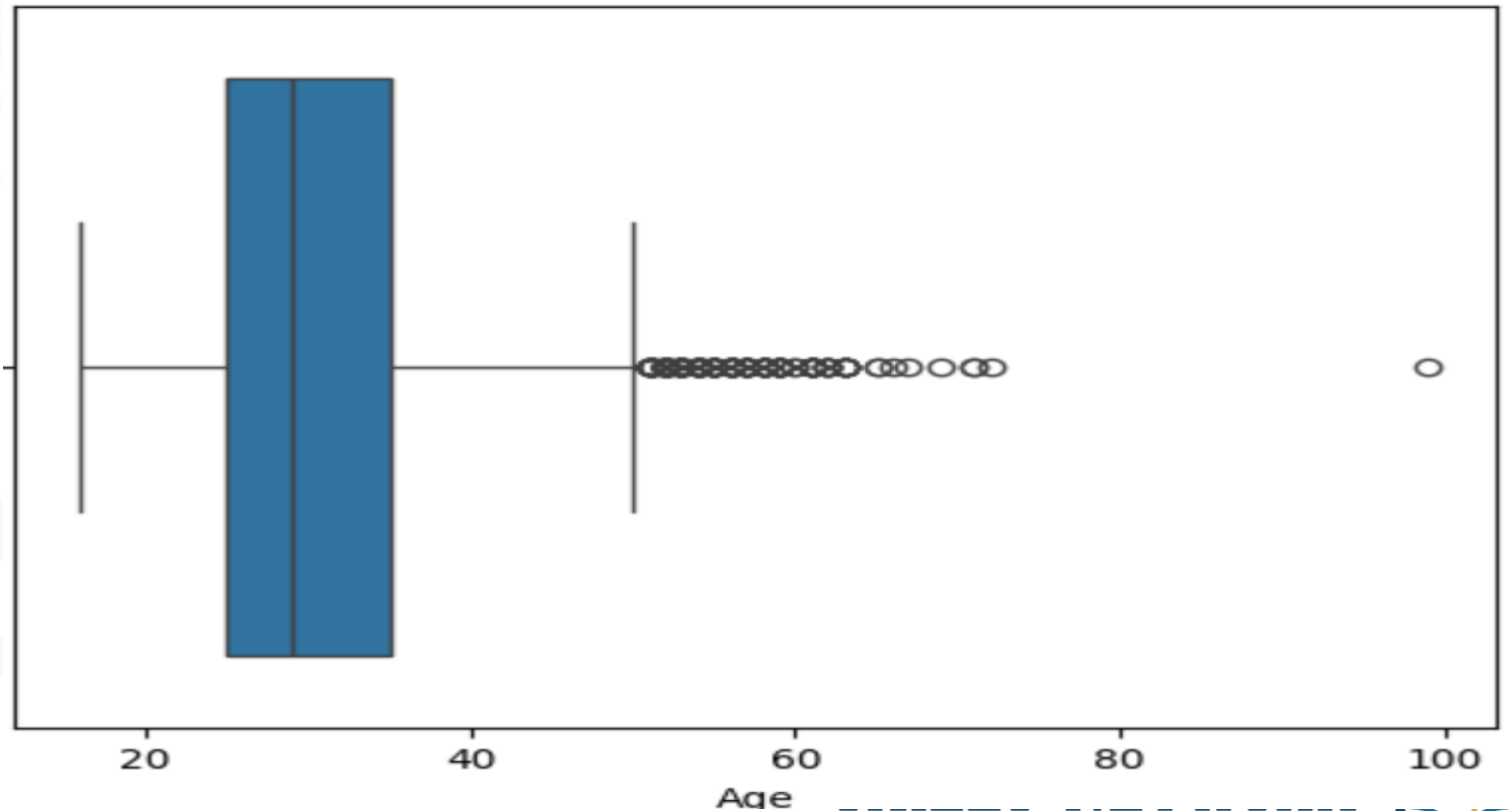
CONCLUSION



- Increase in learning new languages, databases and use of vast IDEs.
- Opportunities should also be given to other gender as they may bring great results.
- Providing with the resources to other countries to enhance great talents in the field.
- Depicts every individual is updating the skills by learning trending technologies.

APPENDIX

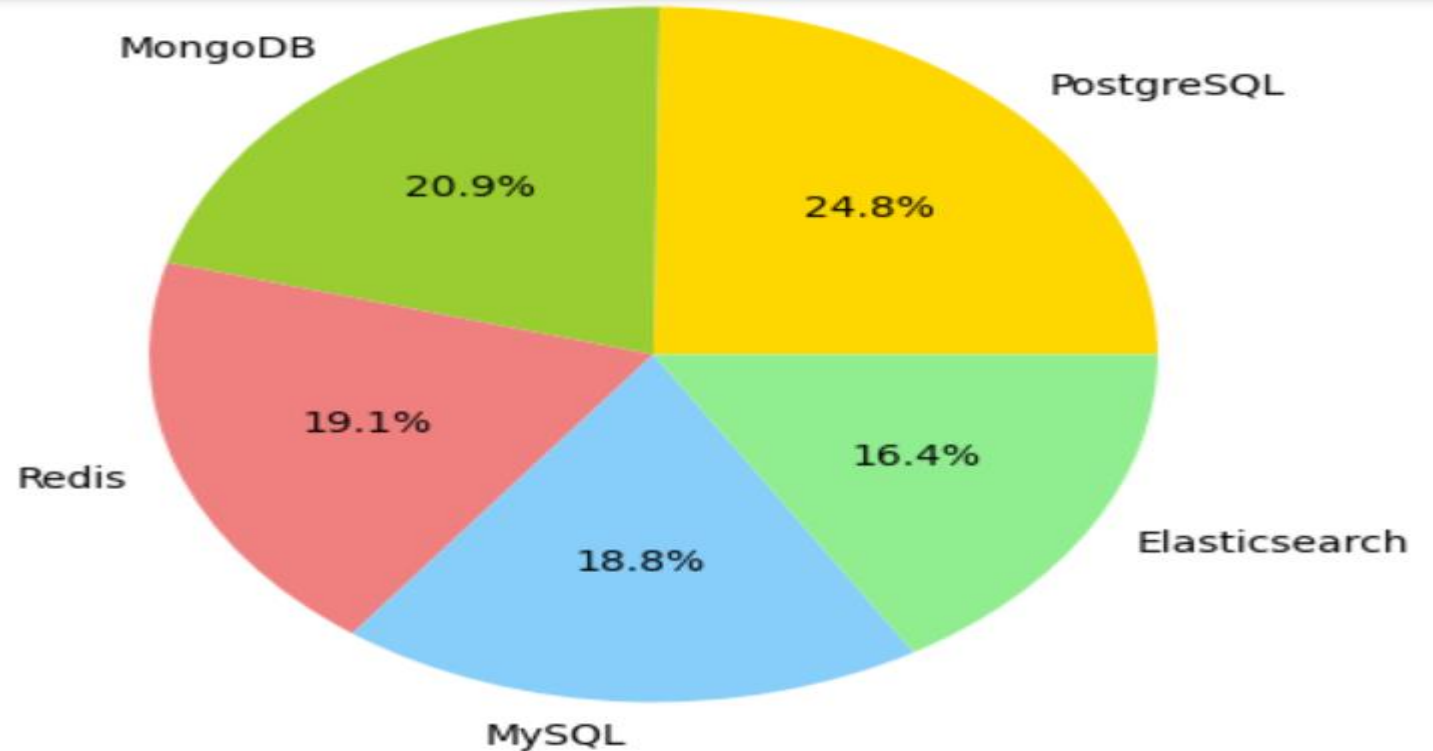
The Boxplot shows the number of outliers with respect to age.



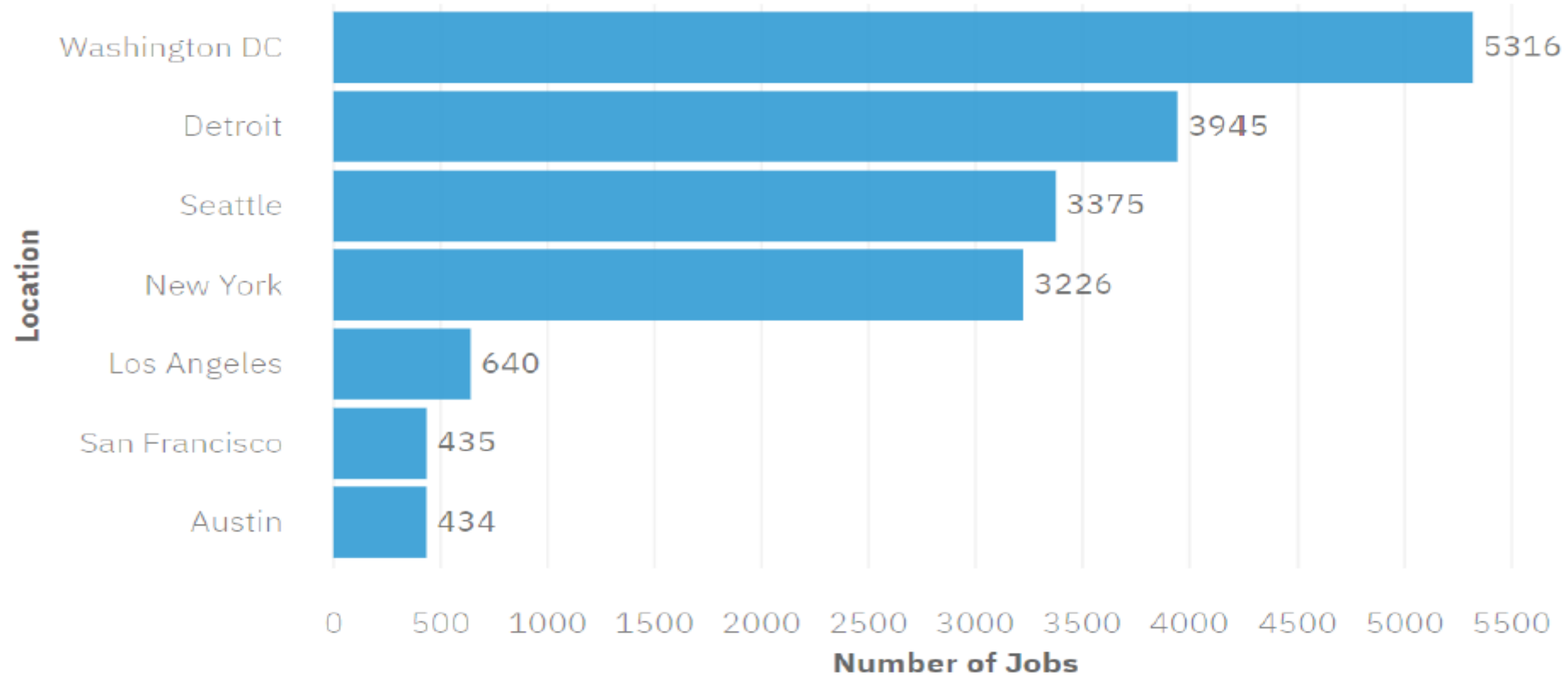
APPENDIX



The pie chart depicts top 5 databases respondents wish to learn



JOB POSTINGS



POPULAR LANGUAGES

