



Current and Future trends

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OUTLINE



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

EXECUTIVE SUMMARY



- Collecting demand of jobs open from various technologies and locations
- Methodology description
 - Data gathering
 - Data analysis
 - Data visualization
- Results' presentation supported with graphs
- Bringing the information together with a dashboard showing current skills, future trend skills, and Demographics

INTRODUCTION

To keep pace with changing technology programming is significant to expertise in IT solutions and consultants.

The focus problems are –

- What are the programming languages and databases demanded in the present?
- What will be the programming languages and databases trends in the future?



METHODOLOGY



Flow of the project-

1. Collect survey data & and explore its content
2. Web Scraping
 - APIs.
 - Request library.
 - Data Wrangling
3. Exploratory data analysis
 - Analyzing data distribution.
 - Handling outliers.
 - Correlations.
4. Data Visualization - Dashboards

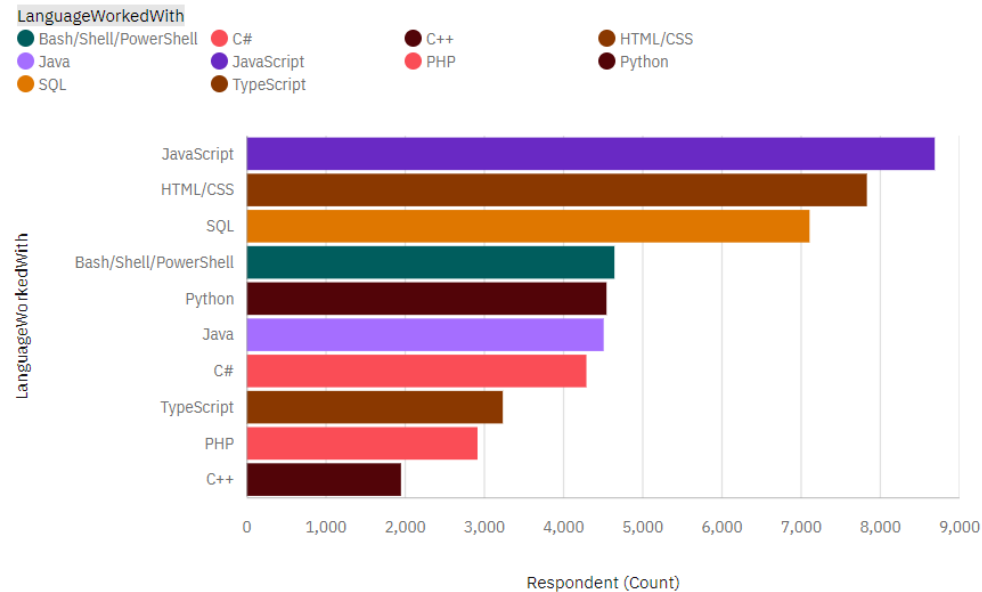
RESULTS

The collected data is transferred to cleaning data and then it is applied statistical techniques to analyze before concluding all information to make dashboards showing current and next year trends.

PROGRAMMING LANGUAGE TRENDS

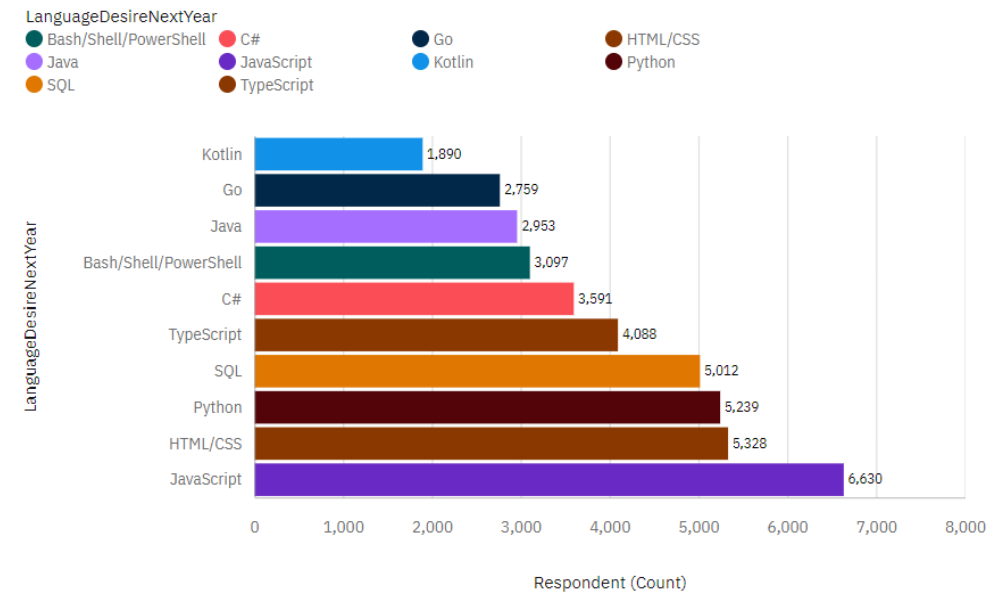
Current Year

Respondent by LanguageWorkedWith colored by LanguageWorkedWith



Next Year

Top 10 Languages Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript boasts the highest number of professionals actively working with it, with HTML/CSS closely following.
- Python is on track to surpass SQL, positioning itself as the third most utilized programming language soon.

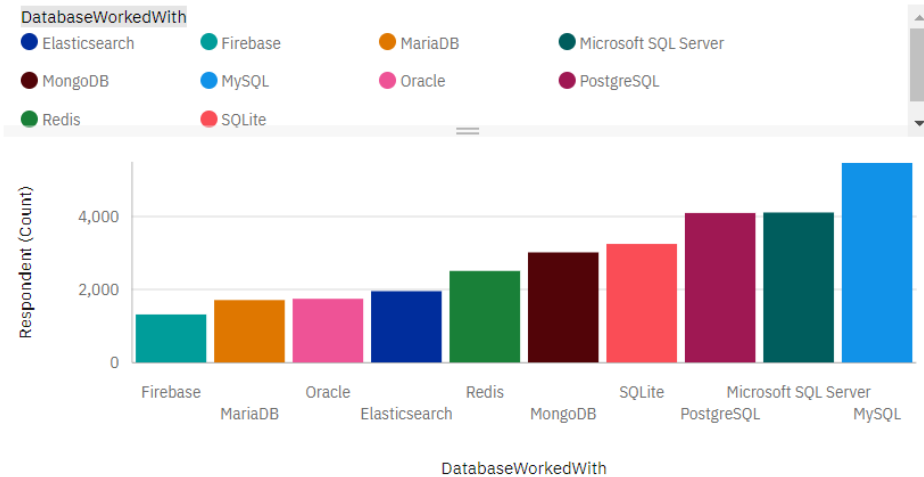
Implications

- TypeScript will experience a surge in demand, reflecting a strong industry interest.
- The demand for C++ is expected to diminish.
- Kotlin is poised to gain increased recognition on a global scale.

DATABASE TRENDS

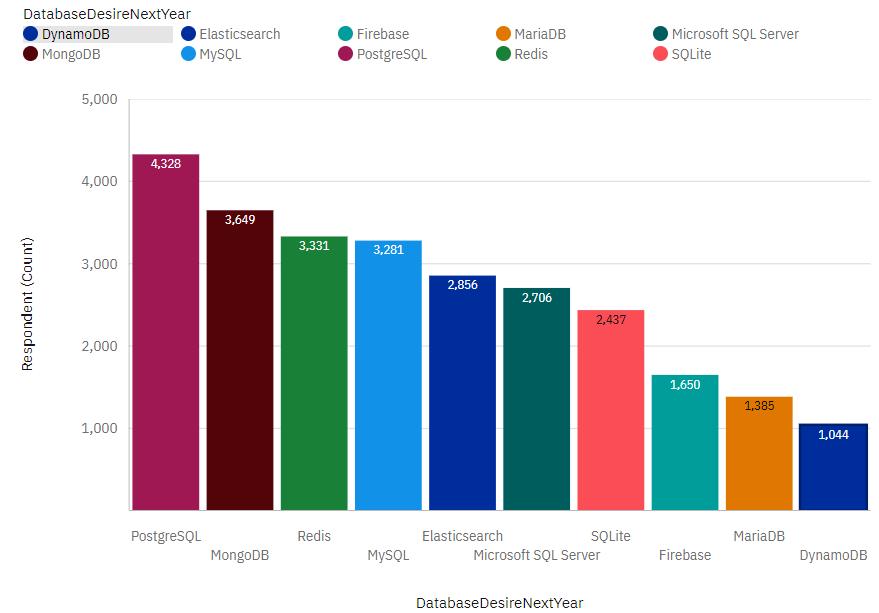
Current Year

top 10 Databases worked with



Next Year

Top 10 Databases Desire Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL holds the top position as the most widely used database.
- PostgreSQL and Microsoft SQL Server are both contenders for the second-place spot.
- Firebase is steadily gaining traction, indicating a rising demand in the market.

Implications

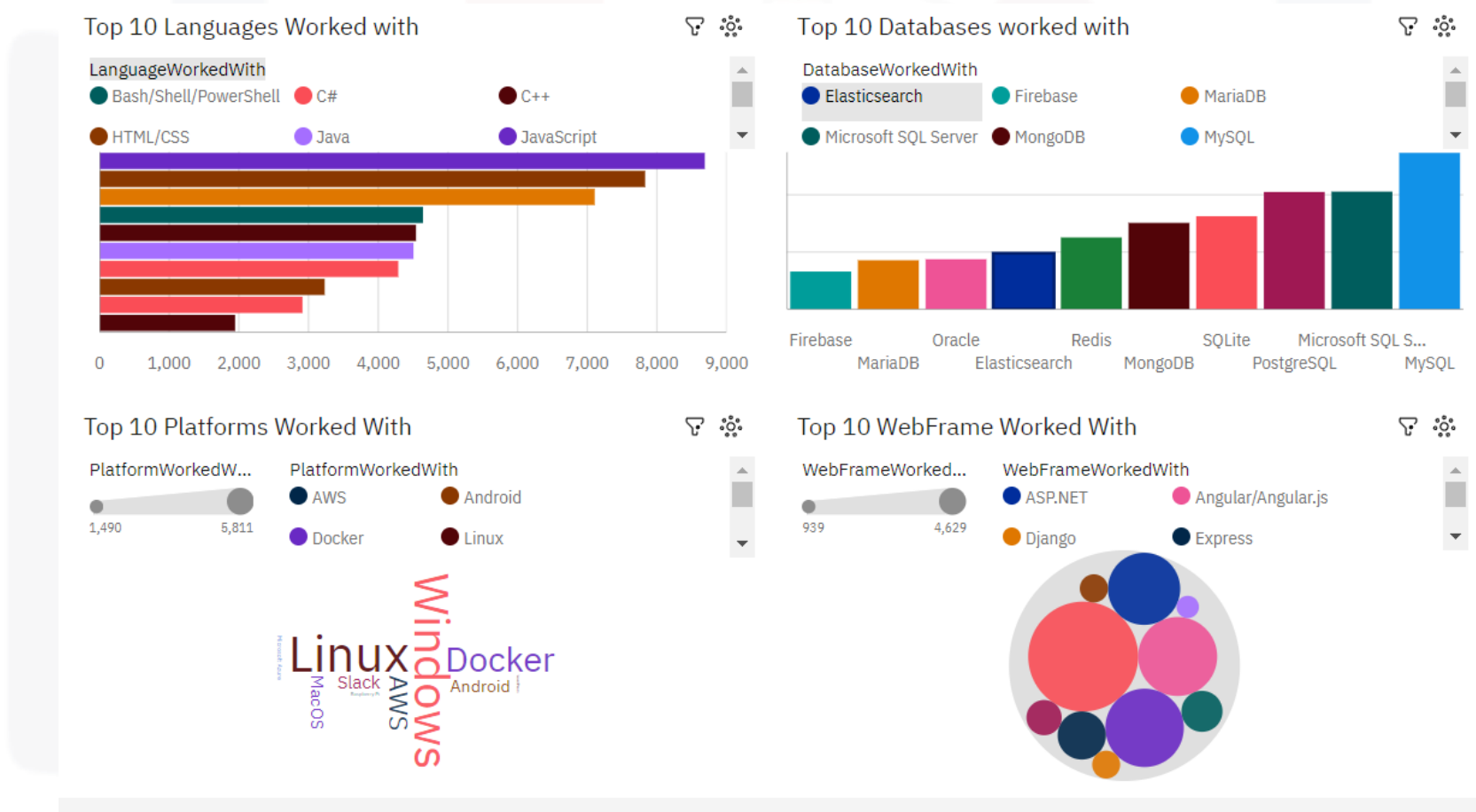
- PostgreSQL is poised to surpass MySQL, emerging as the predominant database choice.
- MongoDB is anticipated to gain significant popularity, while
- Oracle is projected to lose its position in the top 10 rankings.

DASHBOARD

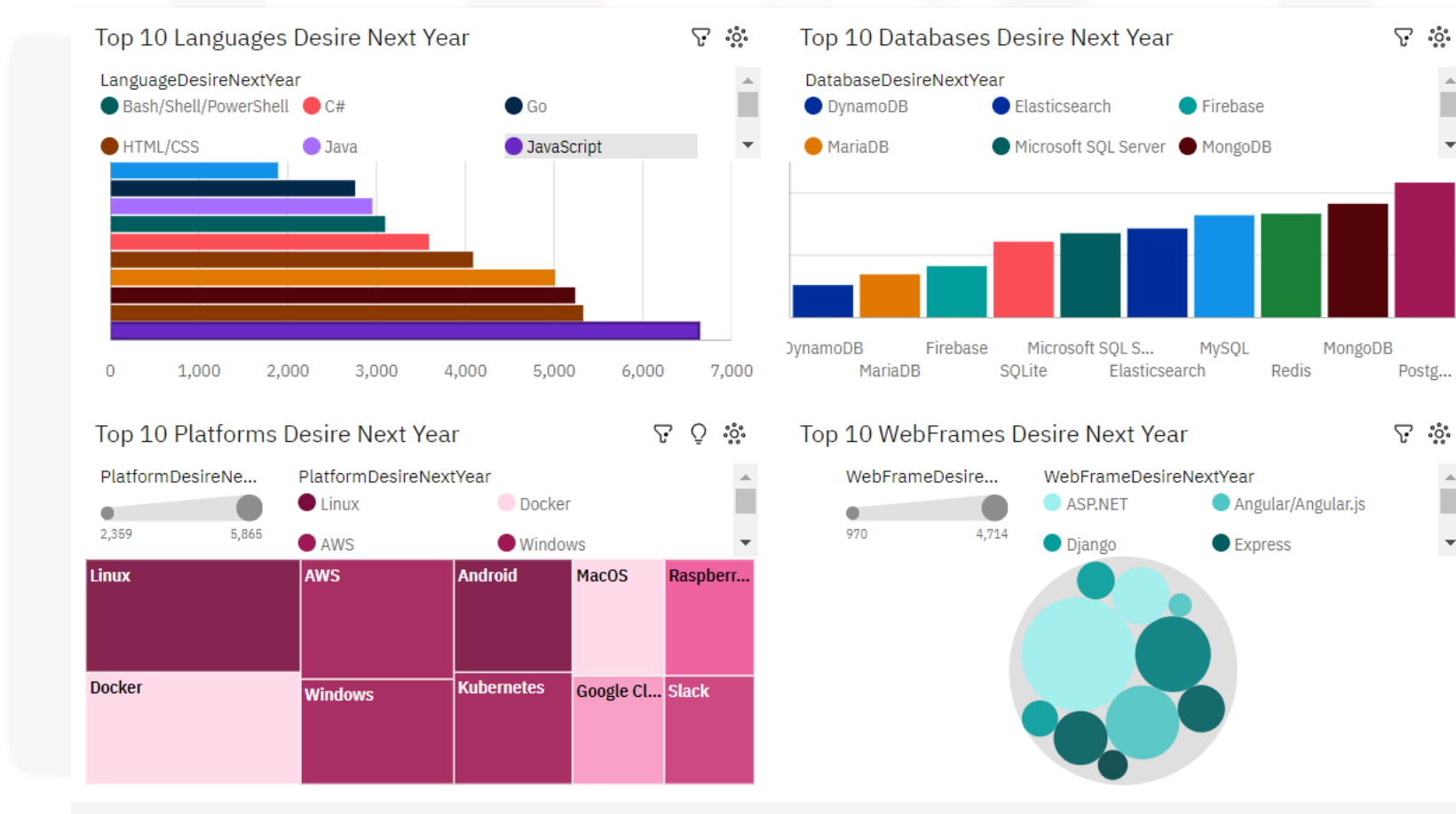


[<https://github.com/sparkar10/Capstone-Project/blob/main/dashboard.pdf>](https://github.com/sparkar10/Capstone-Project/blob/main/dashboard.pdf)

DASHBOARD TAB 1



DASHBOARD TAB 2



DASHBOARD TAB 3

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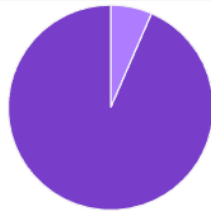
This tab

Gender
Man, Woman 2

nology Trend Demographics +

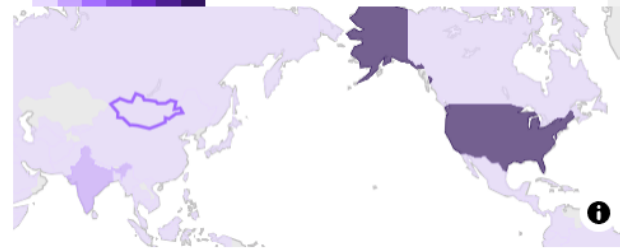
Number of Respondent by Gender

Gender
Woman Man

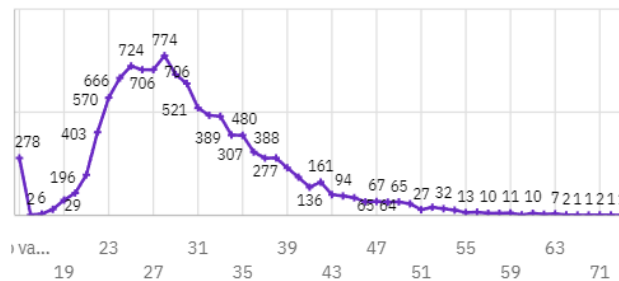


Number of Respondent by Country

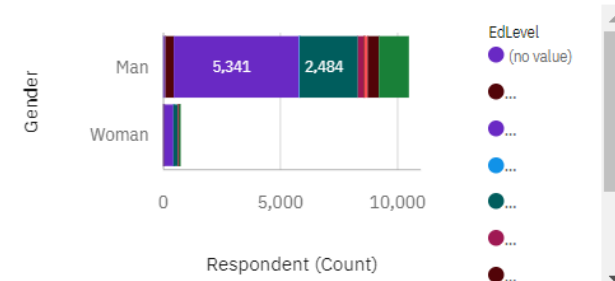
Respondent (Count)



Number of Respondent by Age



Education level for each gender



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript and HTML/CSS are the most sought-after languages.
- Windows and Linux dominate the operating system landscape.
- Among web frameworks, jQuery, Angular, and ReactJS hold the top three positions.
- The majority of respondents are male, with the age group of 23 to 30 being the most prevalent.
- Men generally have higher levels of education.
- The survey respondents are predominantly from the United States.

Implications

- In the future, Python is poised to surpass SQL, securing its position as the third most popular programming language.
- MySQL is expected to experience a decline in standing, with PostgreSQL emerging as the leading database management system in demand.
- ReactJS is anticipated to experience rapid growth in popularity, eventually becoming the predominant web framework for developers.
- Linux and Docker are projected to witness increased usage, solidifying their positions as the top two platforms most coveted by the majority of users.

CONCLUSION

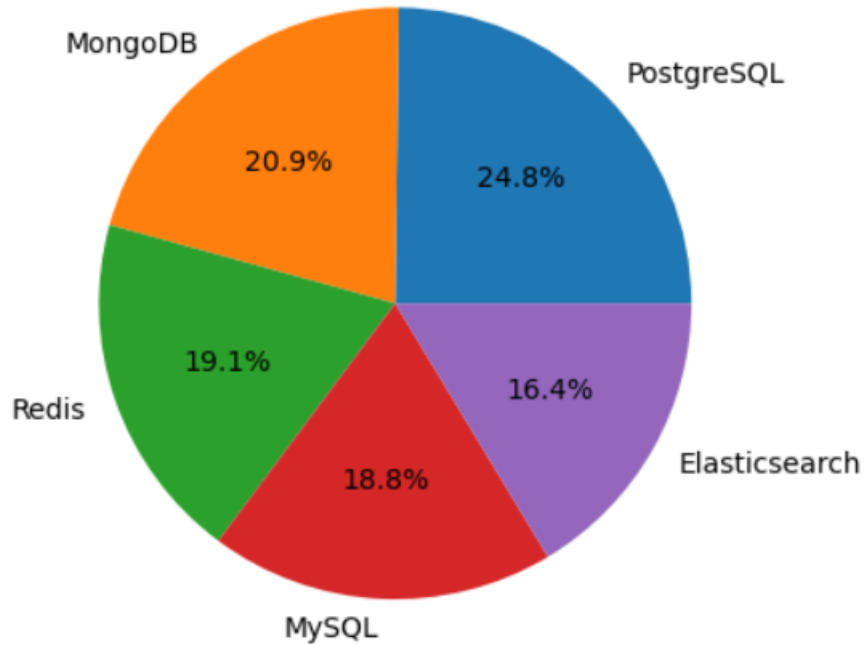


The current landscape favours JavaScript and HTML/CSS, Windows, and Linux, with jQuery, Angular, and ReactJS leading in web frameworks.

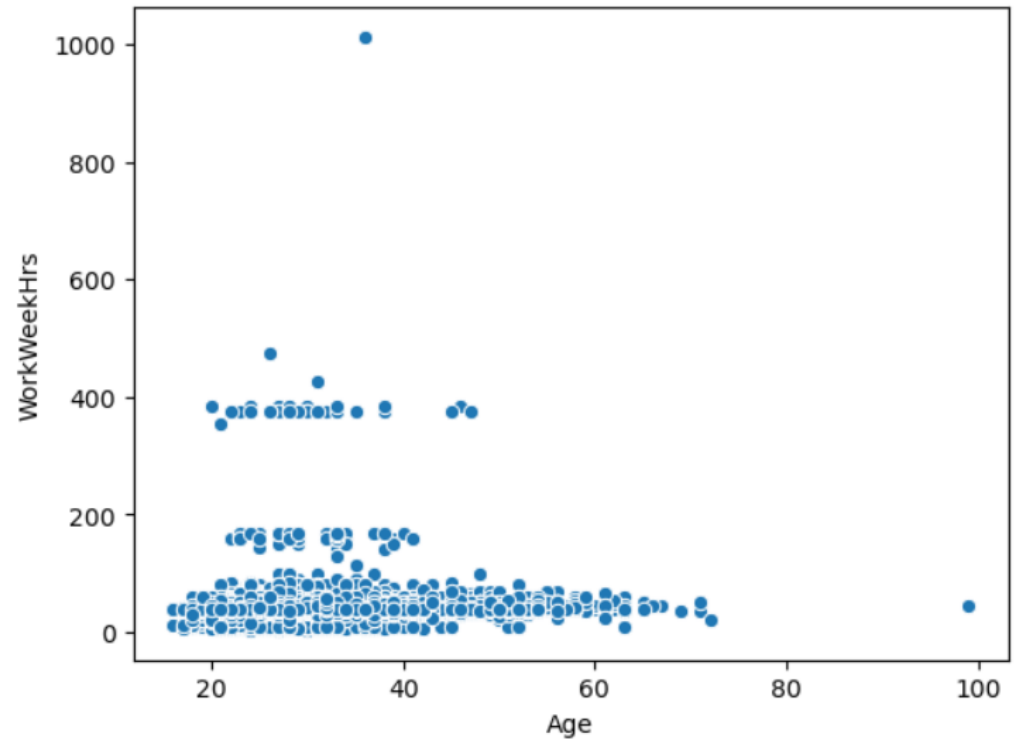
Demographically, the majority of respondents are male, aged 23 to 30, with higher education levels. Looking ahead, Python is foreseen to rise in popularity, PostgreSQL to lead in database demand, ReactJS to grow rapidly, and Linux/Docker to become the top platforms of choice.

These trends signal shifts in the programming and development landscape, emphasizing the importance of staying updated on emerging technologies and frameworks.

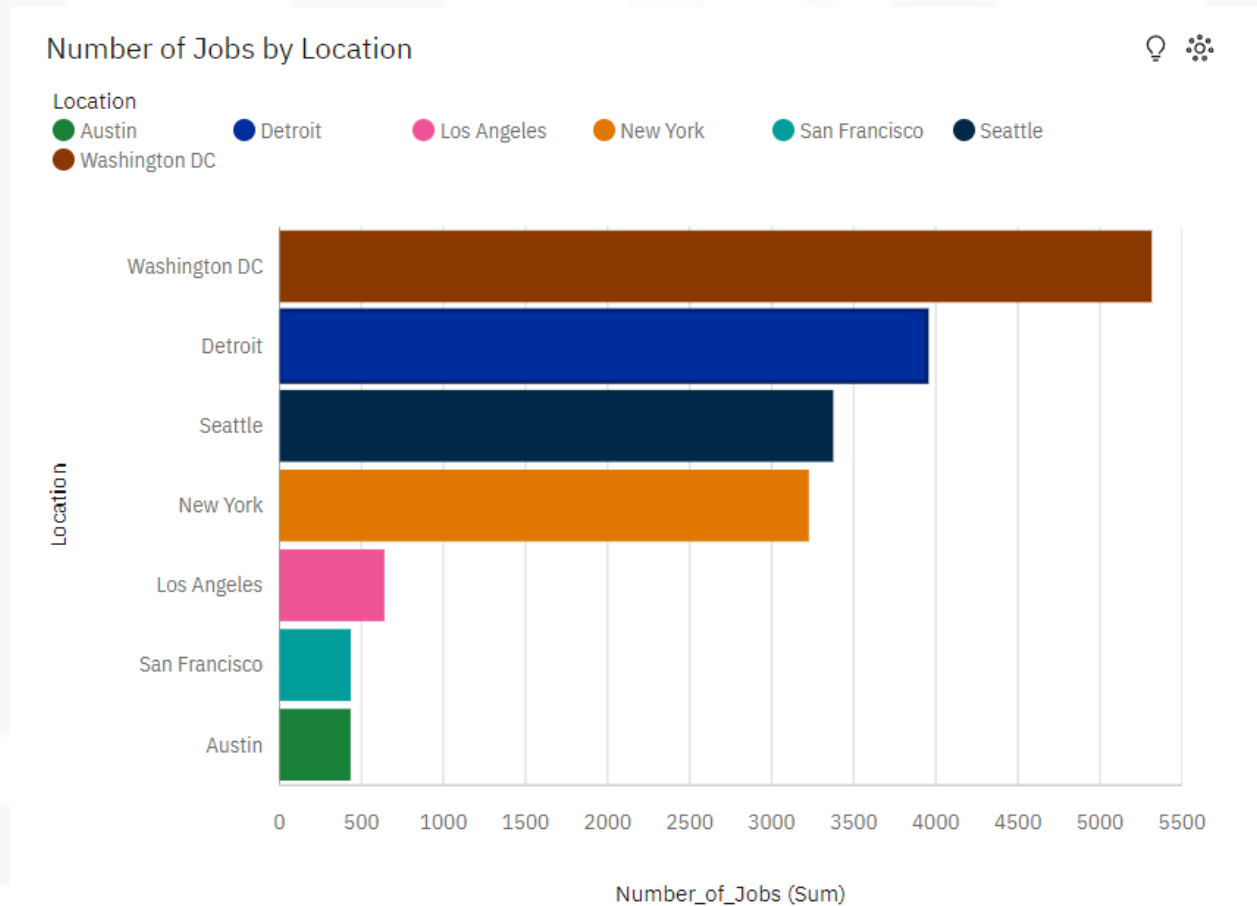
APPENDIX



<AxesSubplot:xlabel='Age', ylabel='WorkWeekHrs'>



JOB POSTINGS



POPULAR LANGUAGES

