



CURRENT AND FUTURE TRENDS IN TECHNOLOGY

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OUTLINE



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

EXECUTIVE SUMMARY



- Gathering data on job openings across various technologies and locations
- Analyzing the data to identify insights and trends, including:
 - The most in-demand programming languages
 - The top database skills required
 - The most popular Integrated Development Environments (IDEs)
- Consolidating information into a dashboard that presents current skills, future skills and demographic details.

INTRODUCTION

To stay abreast of evolving technology, proficiency in programming is crucial for IT solutions and consulting.



KEY QUESTIONS:

- What are current programming and database skills?
- What are desired programming and database skills in the future?

METHODOLOGY



- Data Collection
 - Data Wrangling
 - Explorative Data Analysis
 - Data Visualization
 - Dashboard
-
- Source: Jobs Posting, Training Portals and Surveys

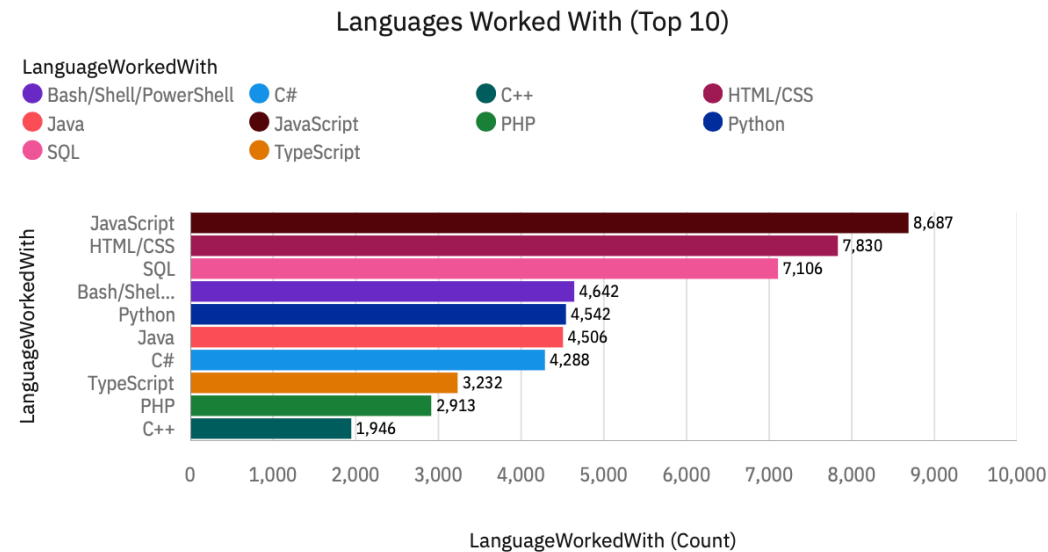
https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m2_survey_data.csv

RESULTS

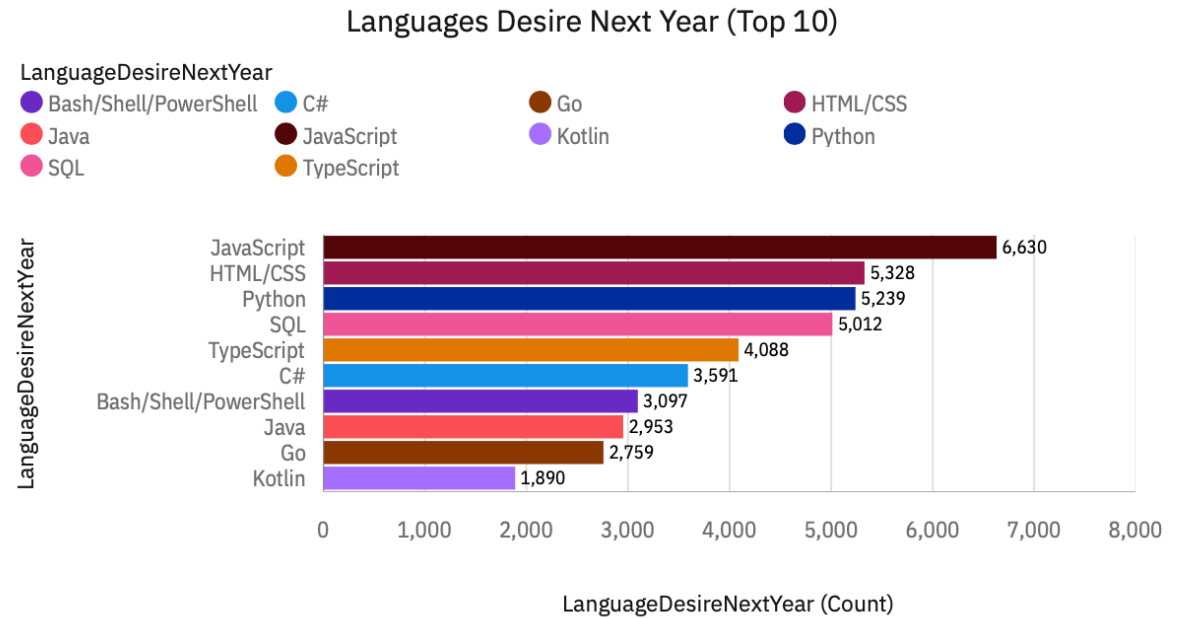
The collected data undergoes a cleaning process, after which statistical techniques are applied to analyze it. This analysis forms the basis for creating dashboards that display current trends and projections for the next year.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

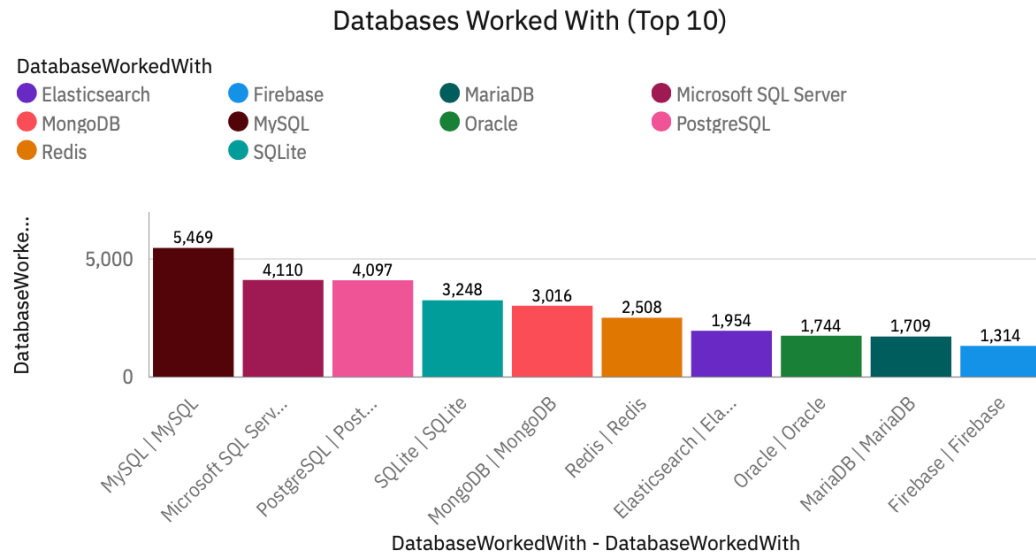
- JavaScript has the highest number of users, followed closely by HTML/CSS.
- Slowly but surely, Python is gaining ranks.

Implications

- JavaScript and HTML/CSS will continue to be popular.
- There is increasing interest in Python.
- SQL will remain a preferred choice.

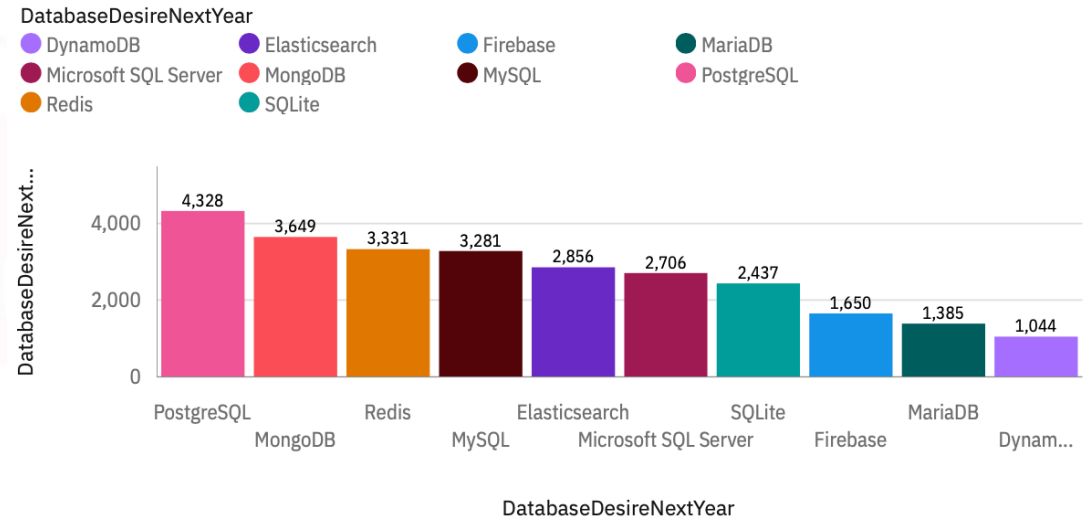
DATABASE TRENDS

Current Year



Next Year

Database Desire Next Year (Top 10)



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Next year, PostgreSQL is projected to take first place, overtaking MySQL.
- MongoDB is expected to move up from fifth to second place
- Microsoft SQL Server and SQLite are likely to be replaced by Redis and Elasticsearch.

Implications

- MySQL is anticipated to be the most required database.
- MongoDB will gain significantly in popularity.
- Redis and Elasticsearch are expected to be among the top five most-used databases.

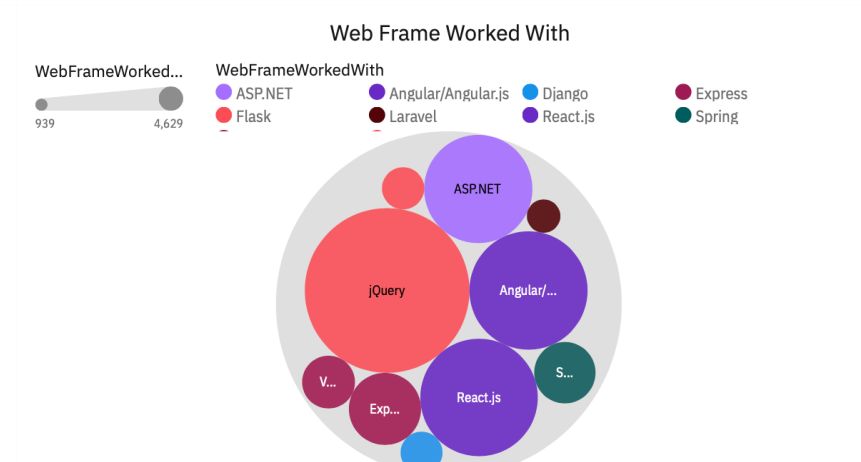
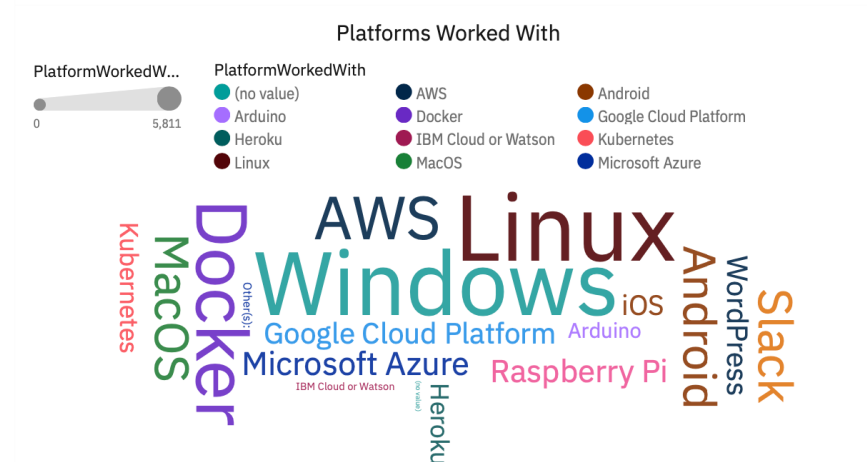
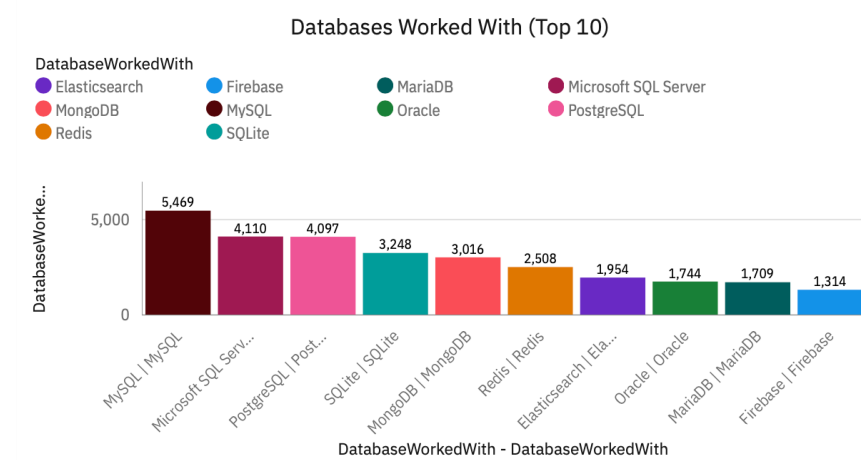
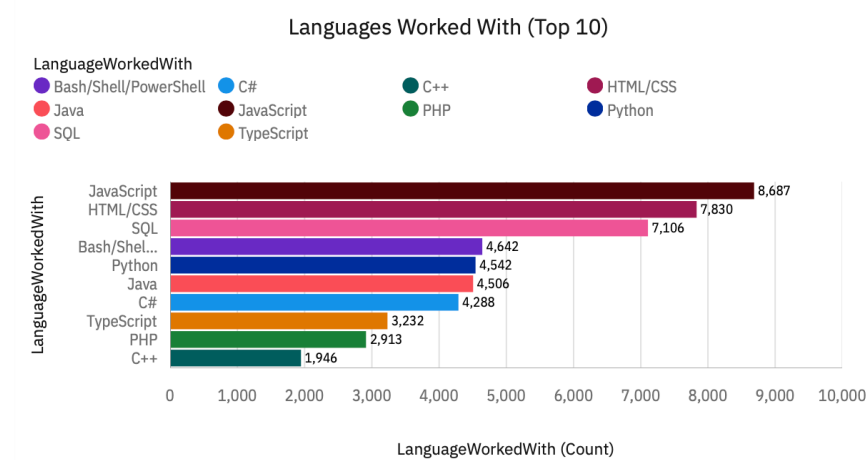
DASHBOARD



Link of the Cognos dashboard
[Click here](#)

DASHBOARD TAB 1

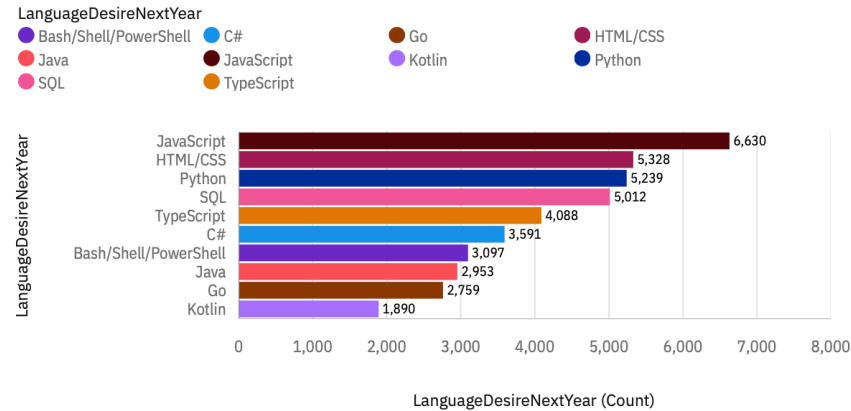
Current Technology Usage



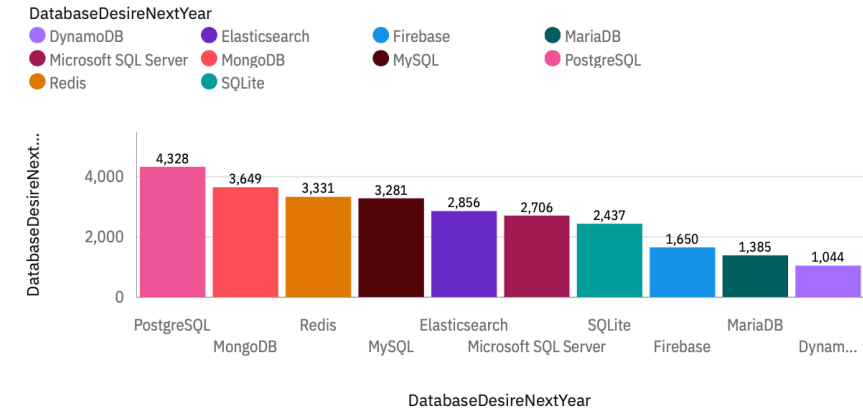
DASHBOARD TAB 2

Future Technology Trend

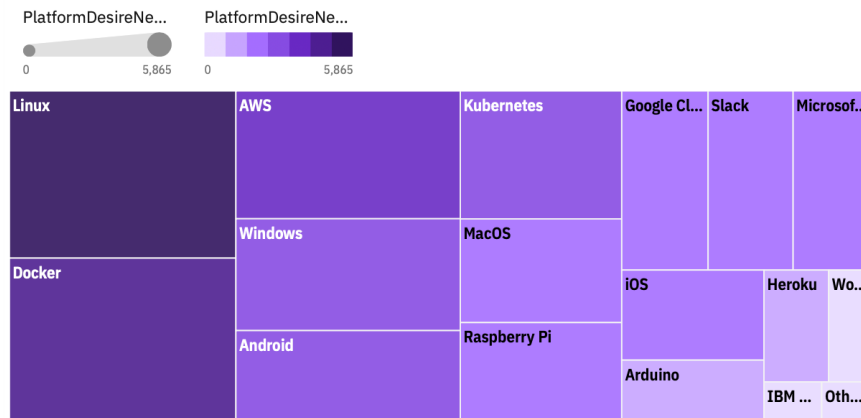
Languages Desire Next Year (Top 10)



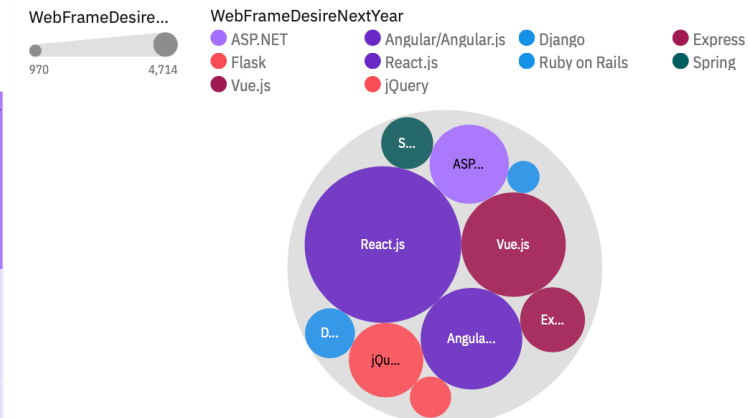
Database Desire Next Year (Top 10)



Platform Desire Next Year



Web Frame Desire Next Year (Top 10)

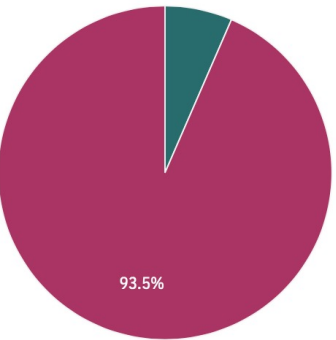


DASHBOARD TAB 3

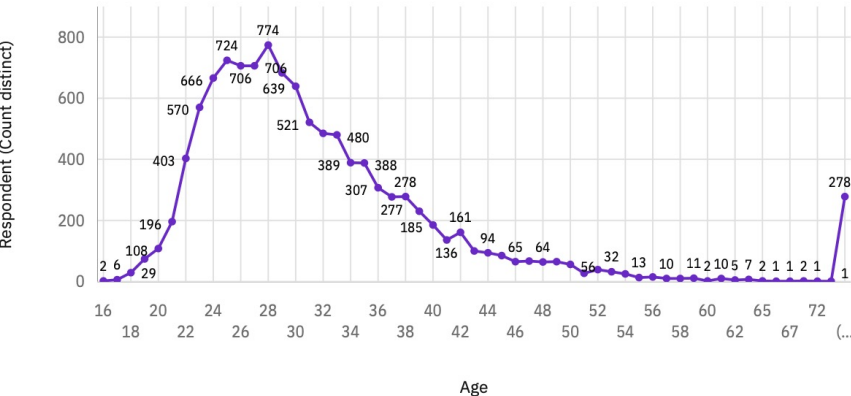
Demographics

Respondent Classified by Gender

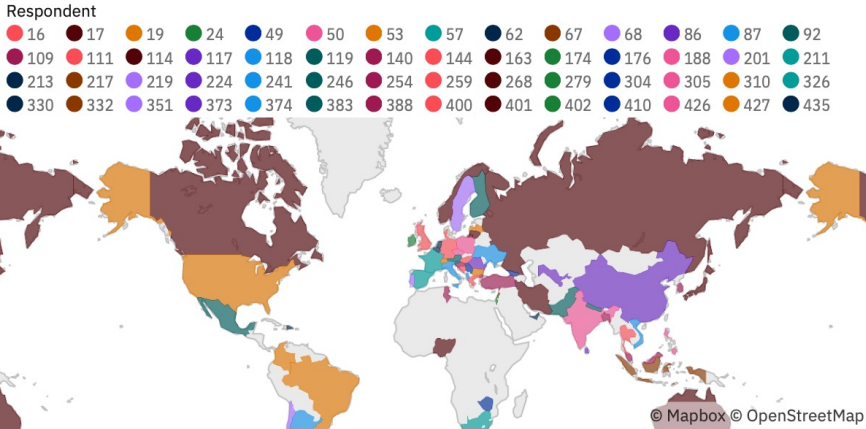
Gender
● Woman ● Man



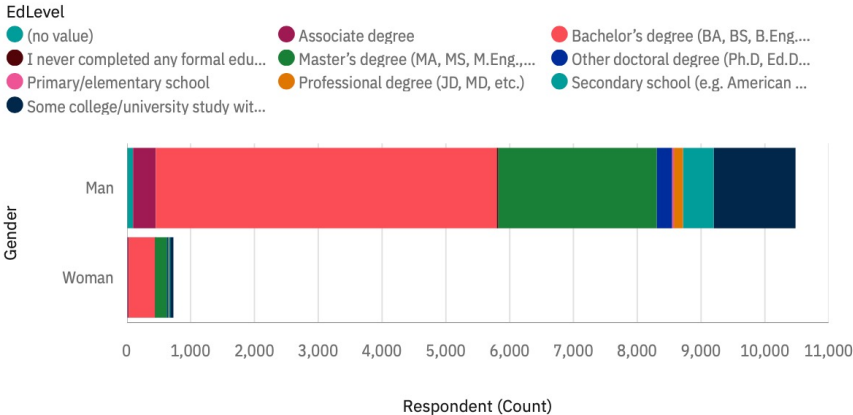
Respondent Count by Age



Respondent Count for Country regions



Education Level of Respondents



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- By next year, JavaScript and HTML/CSS will continue to hold the top two positions.
- SQL will likely be overtaken by Python, while Bash/Shell/PowerShell will no longer appear in the rankings.
- PostgreSQL is set to claim the top spot from MySQL, as Microsoft SQL Server and SQLite phase out.
- Linux will dominate platform usage, with Docker replacing Windows.
- React.js is expected to become the most preferred web framework, surpassing jQuery.

Implications

- JavaScript and HTML/CSS will remain popular.
- Interest in Python is expected to increase.
- While SQL servers will still be required, PostgreSQL is anticipated to become the most popular database.
- Docker is gaining preference, similar to Linux.
- Demand for jQuery is on the decline.

CONCLUSION



- HTML/CSS is expected to maintain its popularity in the coming year.
- PostgreSQL is projected to be the most in-demand database.
- Linux is predicted to remain the top platform requirement.
- React.js is anticipated to hold the largest share among web frameworks.

APPENDIX



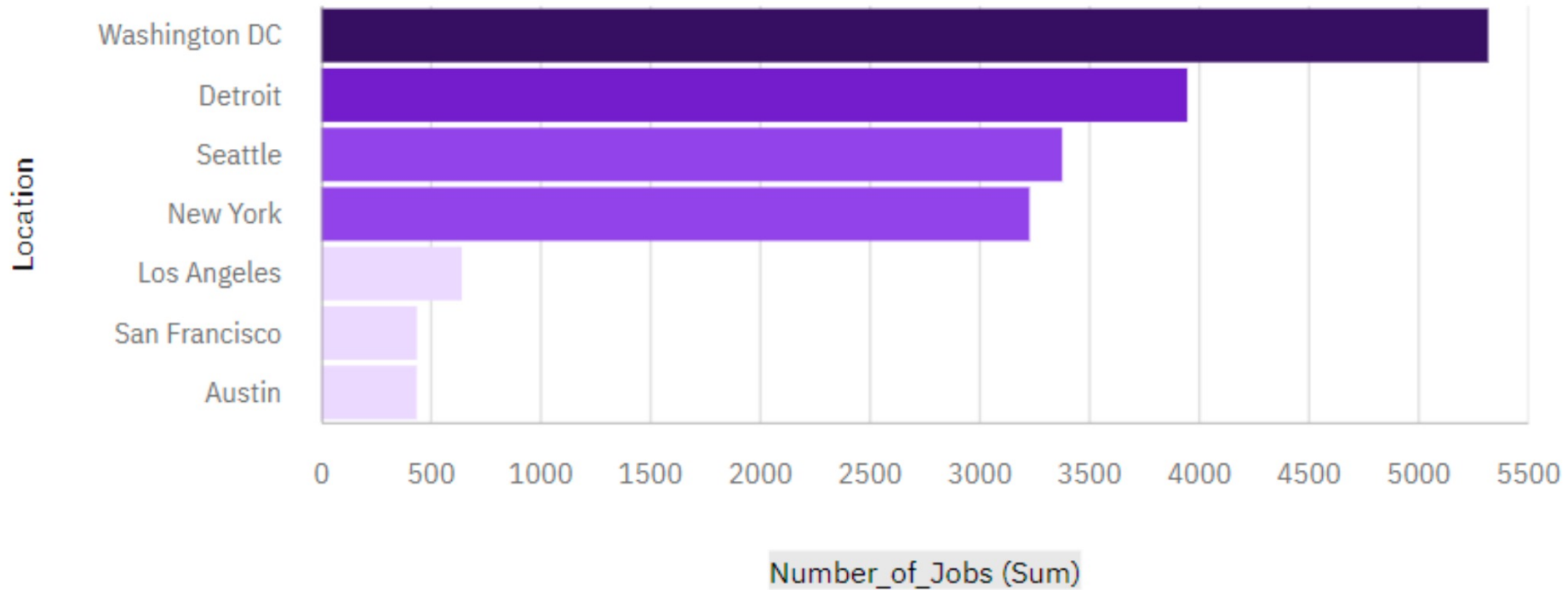
- Include any relevant additional charts, or tables that you may have created during the analysis phase.

JOB POSTINGS

Number_of_Jobs by Location



Number_of_Jobs (...)



POPULAR LANGUAGES

Annual average salary by Language name



annual average sa...

