



Current and Future for Information System

Muhammad Muslim Rifa'i

April 04, 2024

OUTLINE



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

EXECUTIVE SUMMARY



- Data analysis goals
- Methodology
 - Data gathering
 - Data analysis
 - Data Visualizations
- Result supported with graph
- Discussion of overall findings and implications regarding on the results.
- Conclusions

INTRODUCTION



- To be able to adapt to technological developments and market needs, we must know current and future technological trends.
- Research Questions:
 - What are the programming/database skills in the present?
 - What are the programming/database skills in the future?

METHODOLOGY



- Collect Data
- Data Wrangling
- Data Exploration
- Data Cleaning
- Data Visualization
 - IBM Cognos

RESULTS

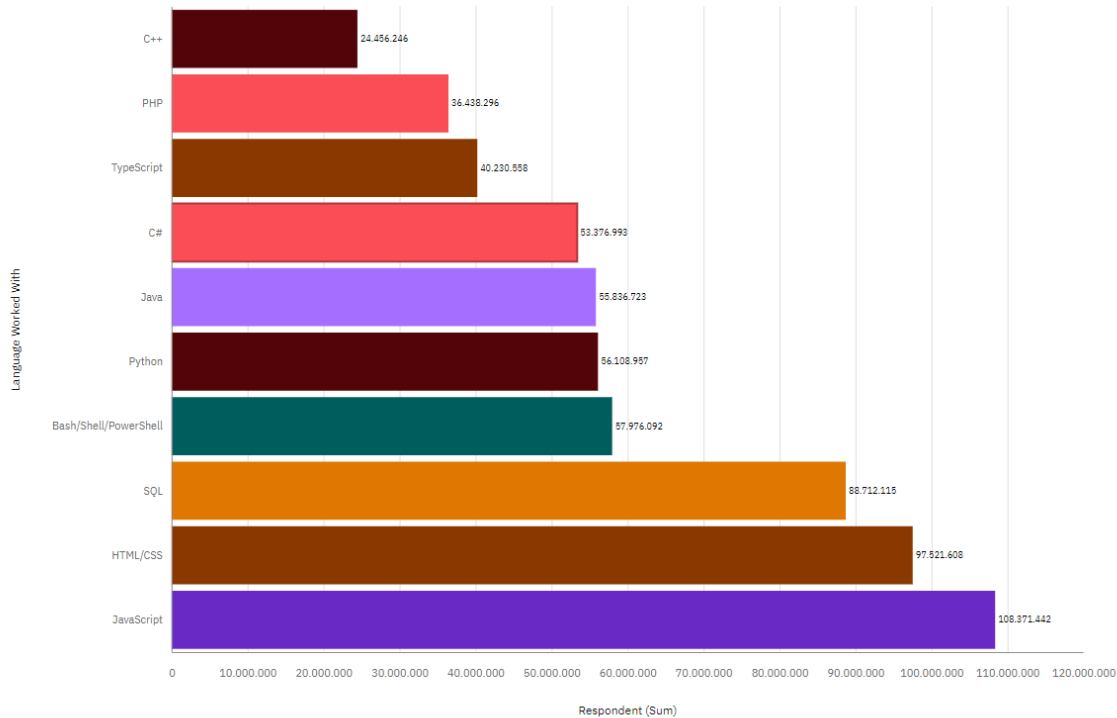


- Indonesia comprises over 1700 islands, divided into 37 provinces, presenting a unique geographical challenge for infrastructure development.
- The Ministry of Public Works and Housing (PUPR) oversees a staggering 41 million kilometers of roads
- Our objective is to evaluate the condition of these roads by categorizing them into "good" and "poor" conditions
- Assessment insights will direct funds for road repairs, prioritizing safety and infrastructure efficiency in the coming year.

PROGRAMMING LANGUAGE TRENDS

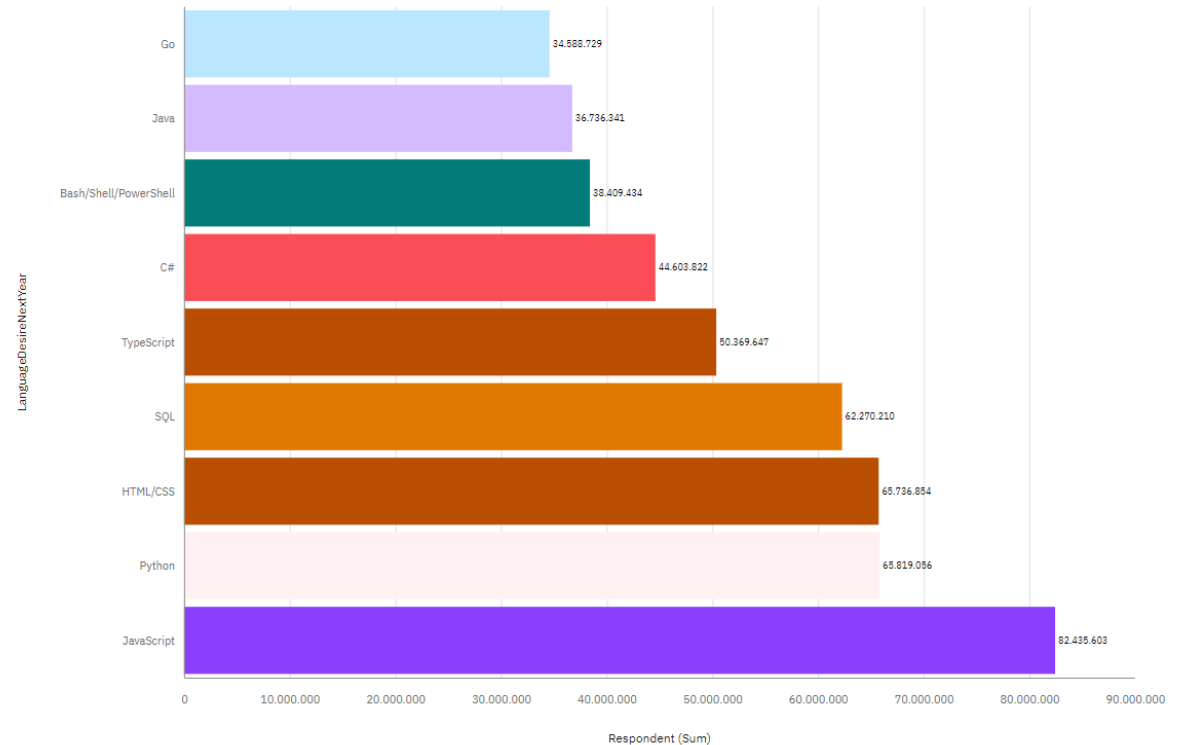
Current Year

Top 10 Language Worked With



Next Year

Top 10 Language Worked With Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

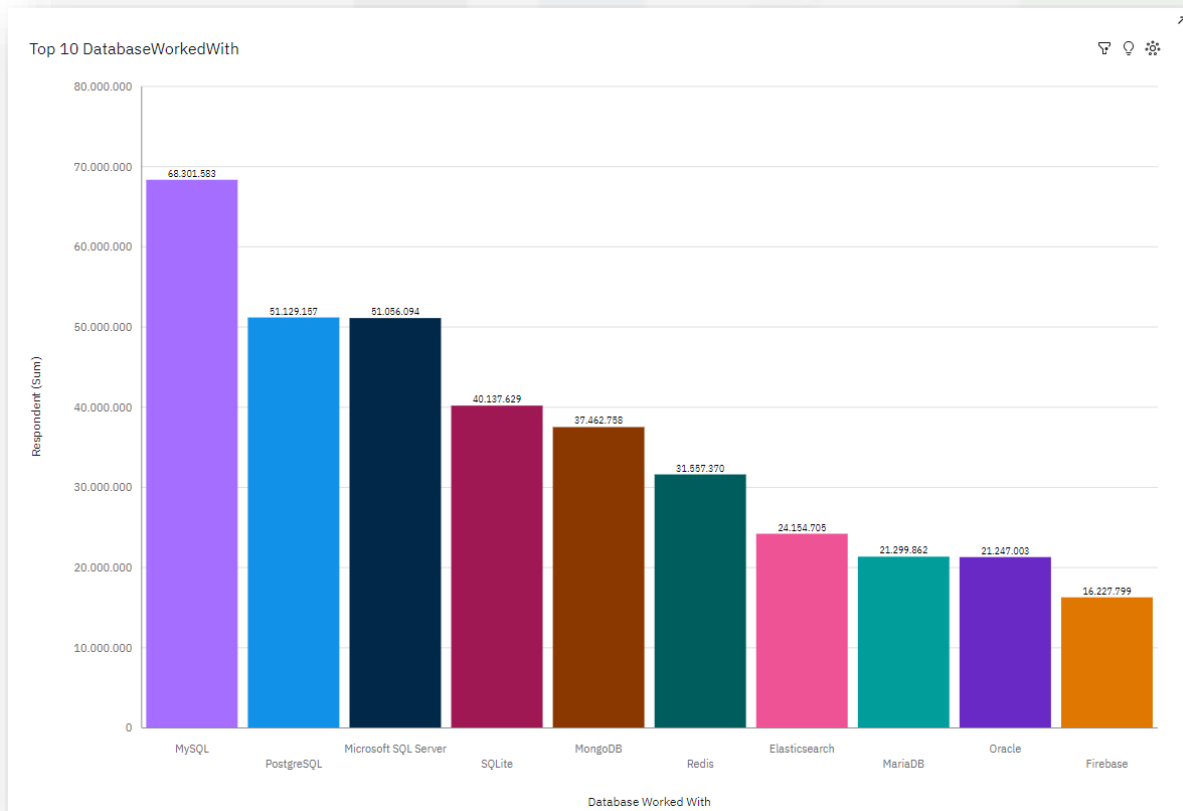
- **Javascript, SQL** and **HTML/CSS** is most highest number of respondent working with for current and next year
- **Python** is getting high interest for next year
- **Powershell** popularity fall down for next year.

Implications

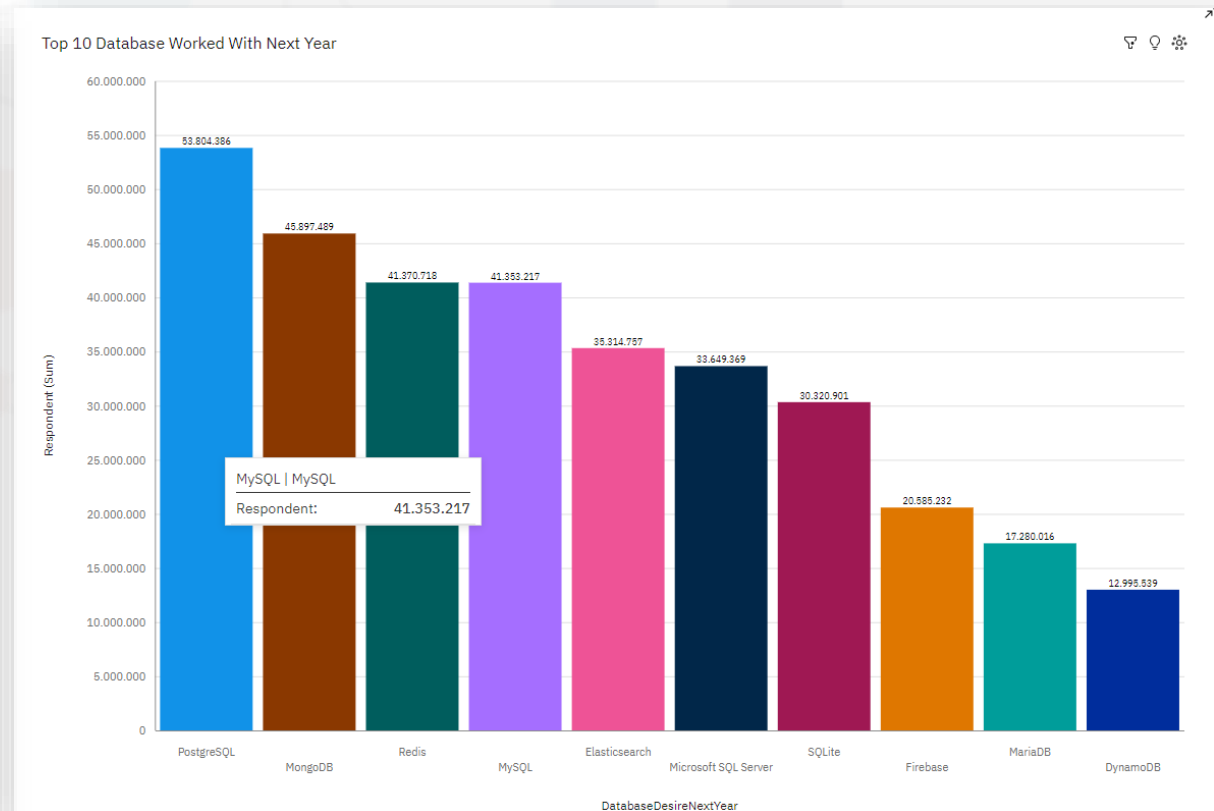
- **Web based application** is still have best place for current and next year
- **Python** is best language to learn for Next year
- For database language, **SQL** still have good place for next year

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- **MySQL** is most used DBMS for current year but going down to 4th place for next year
- **PostgreSQL** is number 3rd for current Year and will be most popular for next year
- **MongoDB** have good popularity for next year as NoSQL Database

Implications

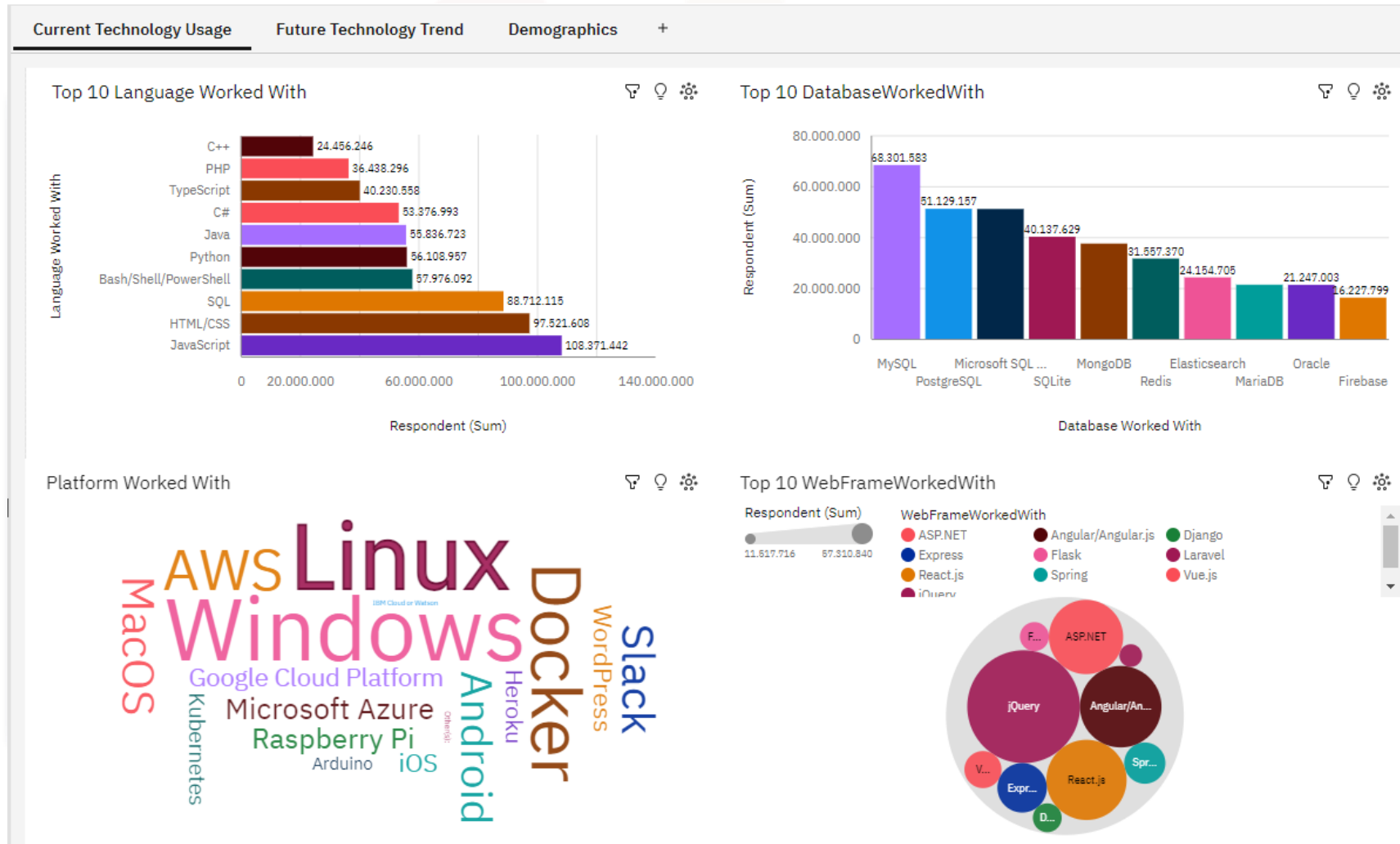
- RDBMS and SQL base databases like **PostgreSQL, MySQL** and **Microsoft SQL Server** still have good place for next Year
- **MongoDB** growing between SQL base databases and most interesting to learn for next year

DASHBOARD

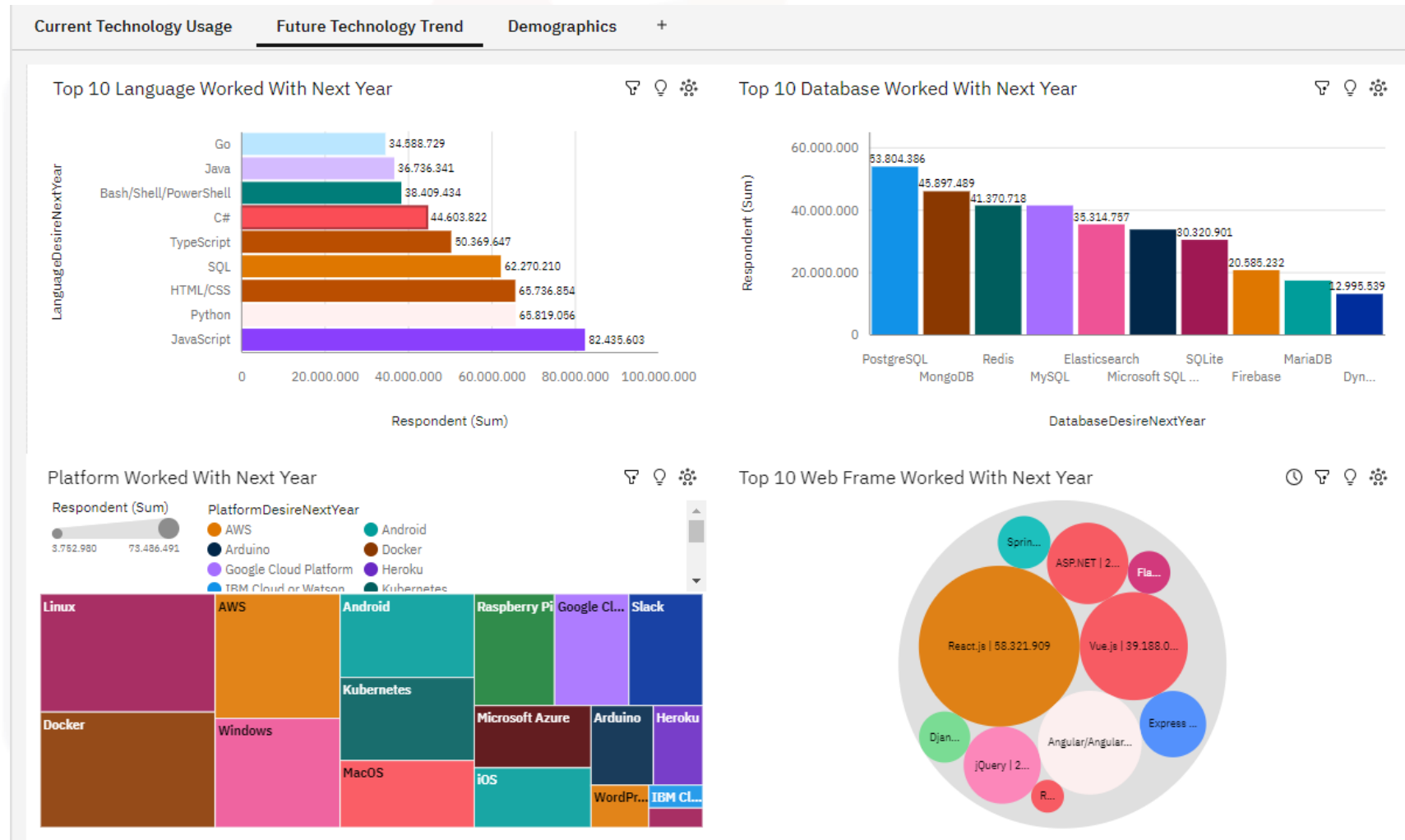


<https://github.com/Rifai19/IBM-Data-Analyst-Capstone-Project--Week-5/blob/main/Task%206%20-%20IBM%20Data%20Analyst%20Capstone%20Project%20Week%205.pdf>

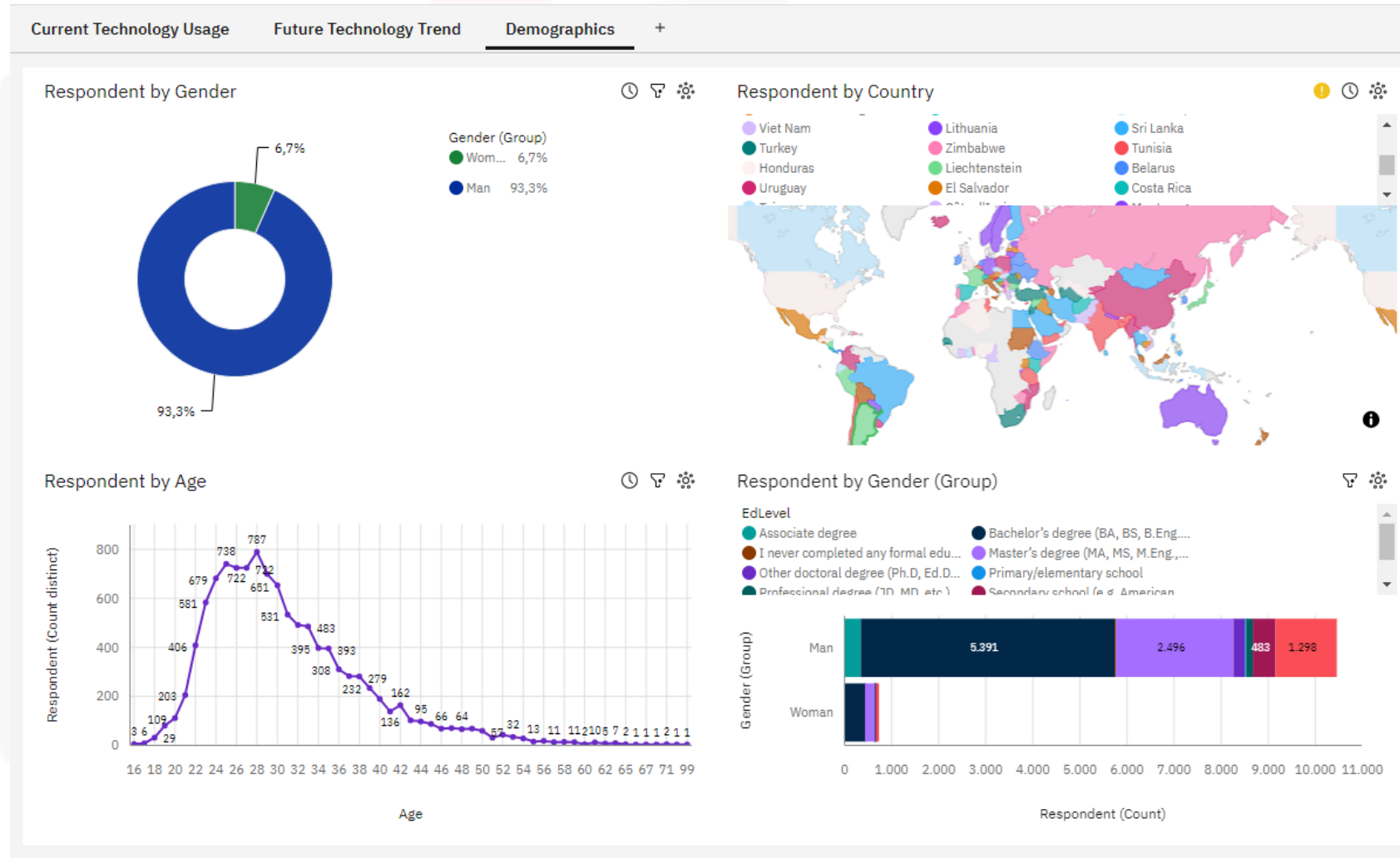
DASHBOARD TAB 1



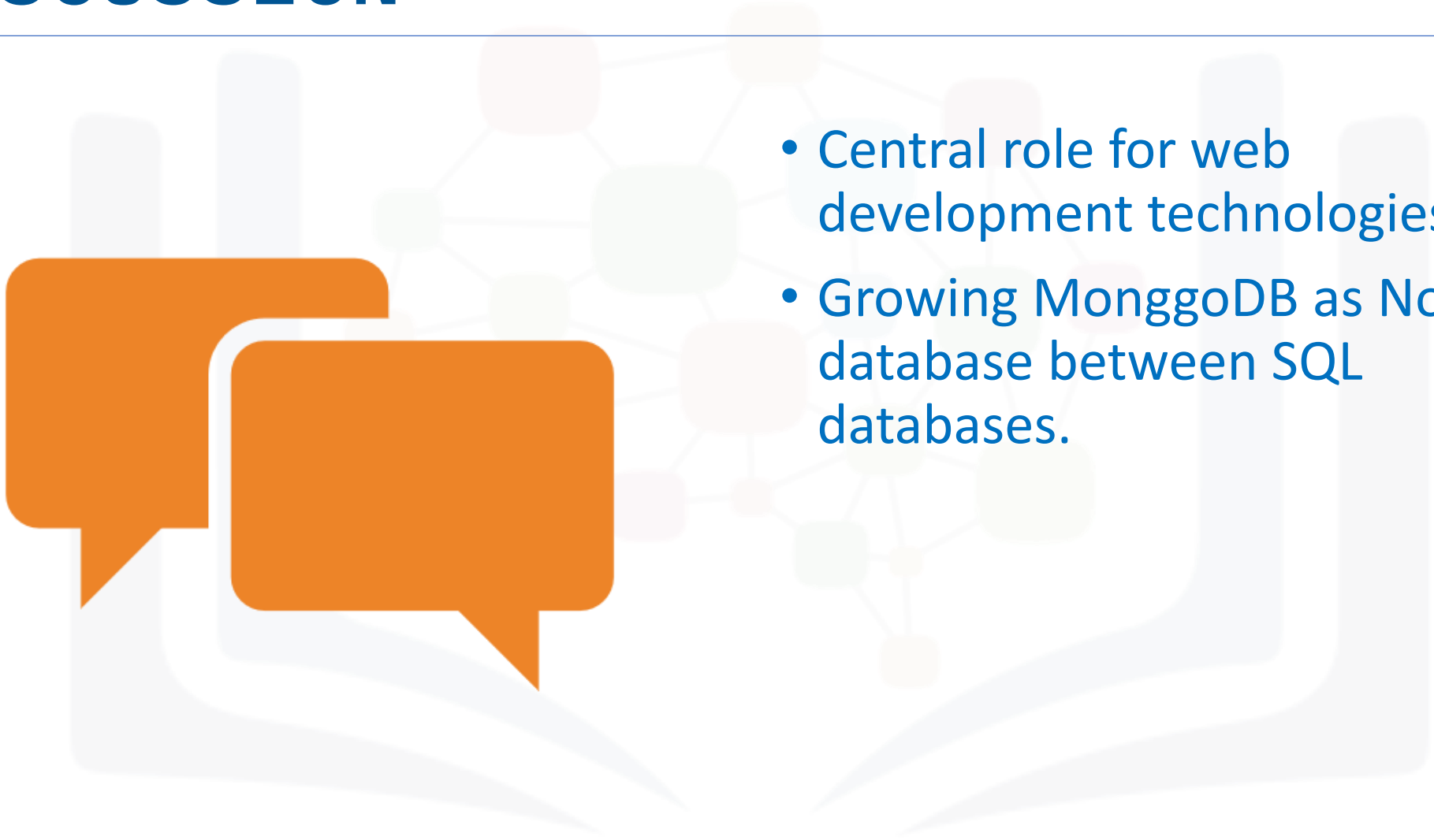
DASHBOARD TAB 2



DASHBOARD TAB 3



DISCUSSION

- 
- Central role for web development technologies.
 - Growing MongoDB as NonSQL database between SQL databases.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Next year, **JavaScript** and **HTML/CSS** are expected to maintain their positions as the top two languages.
- **Bash/Shell/PowerShell** are not anticipated to be prominently featured.
- **PostgreSQL** is projected to rise to the top spot over **MySQL**, while Microsoft SQL Server and SQLite might become less prevalent.
- **MongoDB** have good popularity for next year as NoSQL Database

Implications

- **JavaScript** and **HTML/CSS** will be continue popular
- **Python** is going to be more interested
- SQL servers will be required but the most popular database is expected to be **PostgreSQL** and **MongoDB**

CONCLUSION



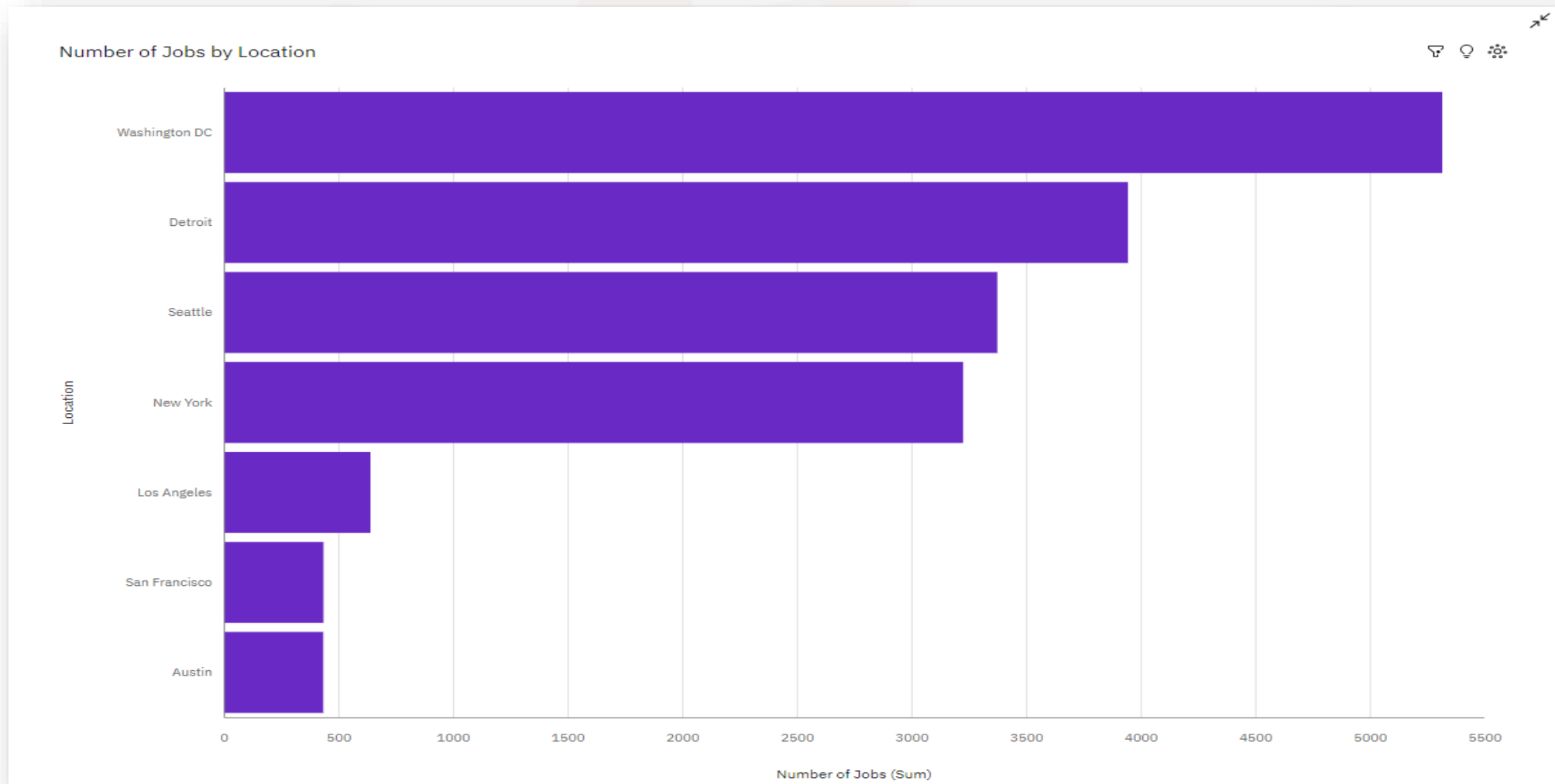
- HTML/CSS is estimated to stay popular the same in the next year
- PostgreSQL will be the most demand of database and MongoDB for 2nd place

APPENDIX



- Number of Jobs by Location
- Average salary for Each Programming Language

JOB POSTINGS



POPULAR LANGUAGES

