



Trends in Technology Analysis

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OUTLINE



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EXECUTIVE SUMMARY



- **Insights and Trends**
- **Current Technology Usage:**
 - Top Languages worked with
 - Top Databases worked with
 - Platforms worked with
 - Top Web Frames worked with
- **Future Technology Trend:**
 - Top Languages desired next year
 - Top Databases desired next year
 - Platforms desired next year
 - Top Web Frames desired next year
- **Demographics**

INTRODUCTION



Our company is known for its expertise in IT solutions and experienced consultants. We regularly analyze data to stay competitive and identify future skill requirements

- **Objective:**

- Collect and analyze data to identify emerging programming skills
- Sources include job postings, training portals, and surveys

- **Focus Areas:**

- Top programming languages in demand
- Top database skills in demand
- Popular Integrated Development Environments (IDEs)

METHODOLOGY



- **Process:**

- Web scraping and accessing APIs to collect data in .csv files, Excel sheets, and databases
- Data wrangling techniques to prepare data for analysis
- Apply statistical methods to uncover trends
- Use IBM Cognos Analytics to create a dashboard

RESULTS

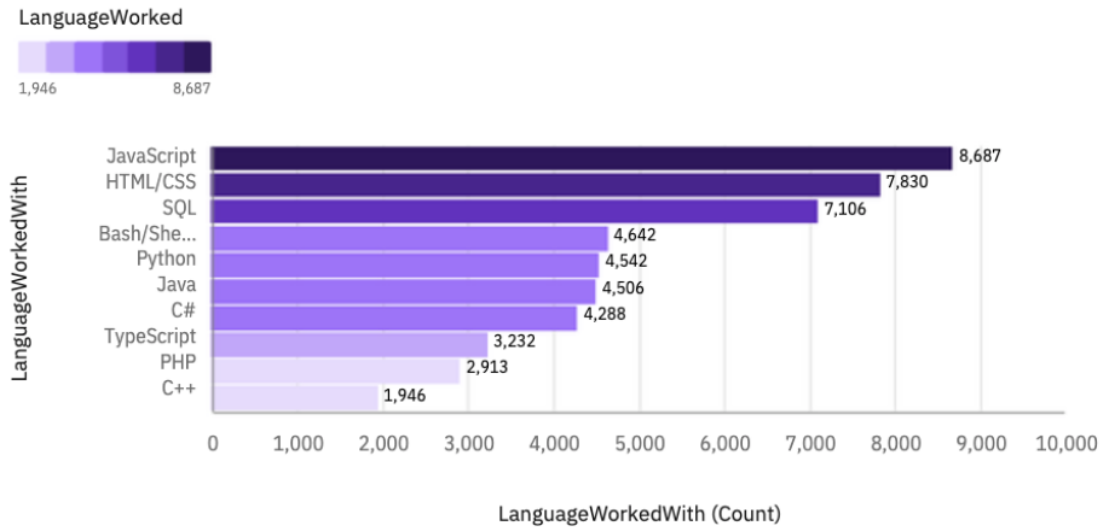
- **TOP FINDINGS:**
- **JavaScript** is still the most used programming language.
- **Python** has overtaken Java. It is the fastest-growing major programming language.
- **jQuery** is the most widely used web framework, with React.js now being more popular than Angular among developers this year.

PROGRAMMING LANGUAGE TRENDS

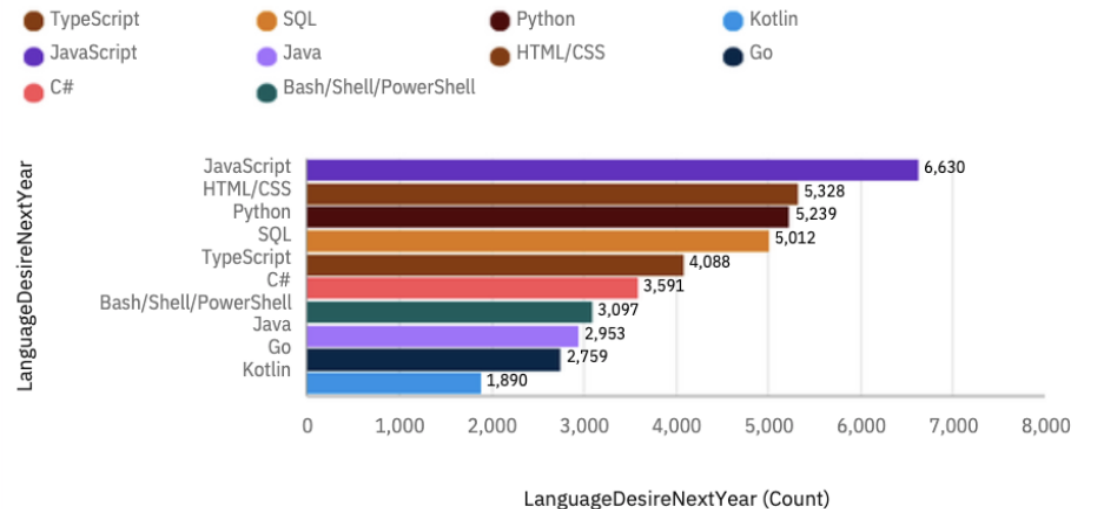
Current Year

Next Year

Top 10 Language Worked With



Top 10 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings:

- JavaScript and HTML/CSS are the most used programming languages among all respondents.
- SQL is also widely used.
- Python has just surpassed Java in the overall ranking.

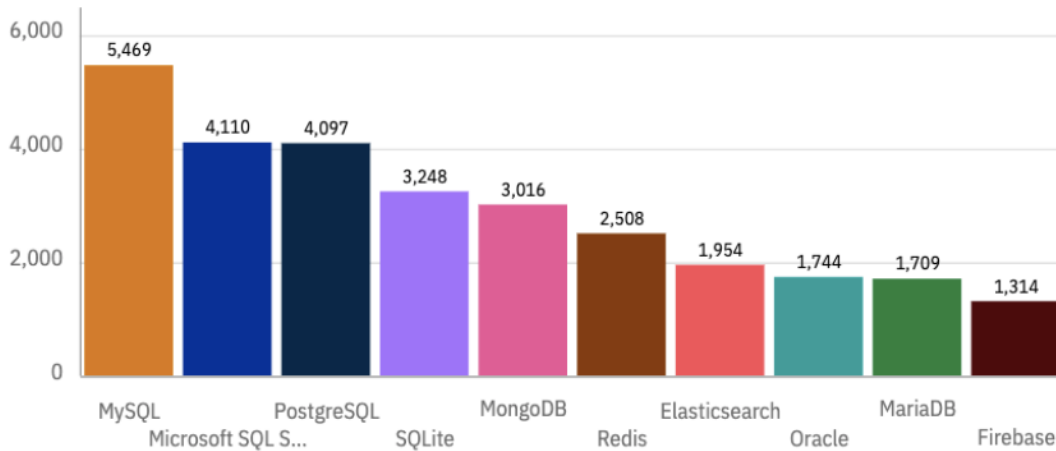
Implications:

- JavaScript and HTML/CSS are essential for modern web development and crucial for developers.
- SQL's high usage highlights its importance in data management and querying across various applications.
- Python is popular due to its versatility and ease of use, appealing to developers in data science and software development.

DATABASE TRENDS

Current Year

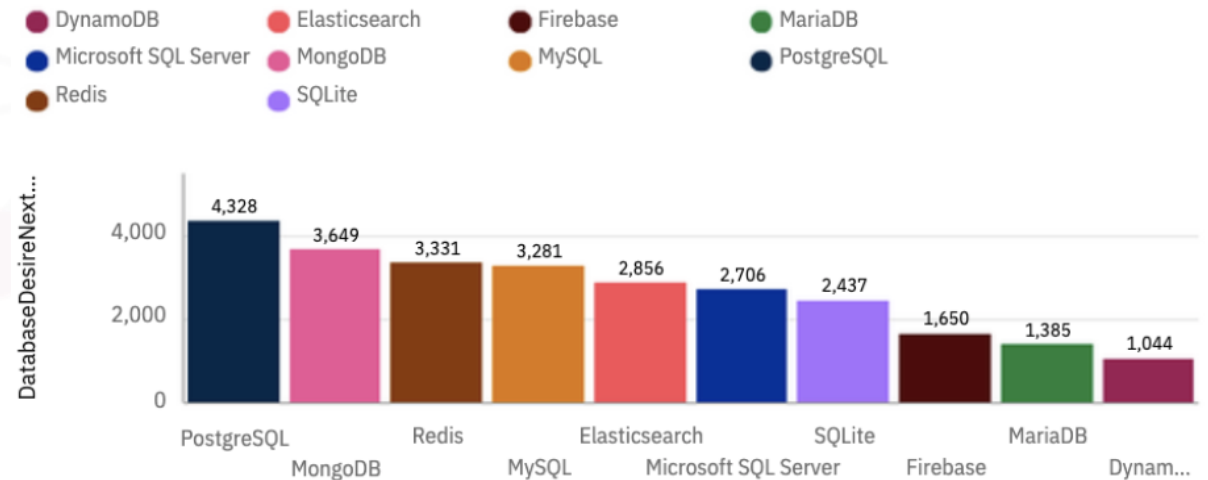
Top 10 Database Worked With



DatabaseWorkedWith

Next Year

Top 10 Database Desire Next Year



DatabaseDesireNextYear

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings:

- MySQL is the most used DBMS among respondents.
- PostgreSQL and Microsoft SQL Server are close behind.
- MongoDB is the top NoSQL database.

Implications:

- MySQL, PostgreSQL, and Microsoft SQL Server are popular, what shows the importance of relational databases.
- MongoDB's high usage reflects the growing trend towards NoSQL databases.
- The variety of databases used by developers highlights the need to choose the right tool based on data structure, scalability, and performance needs.

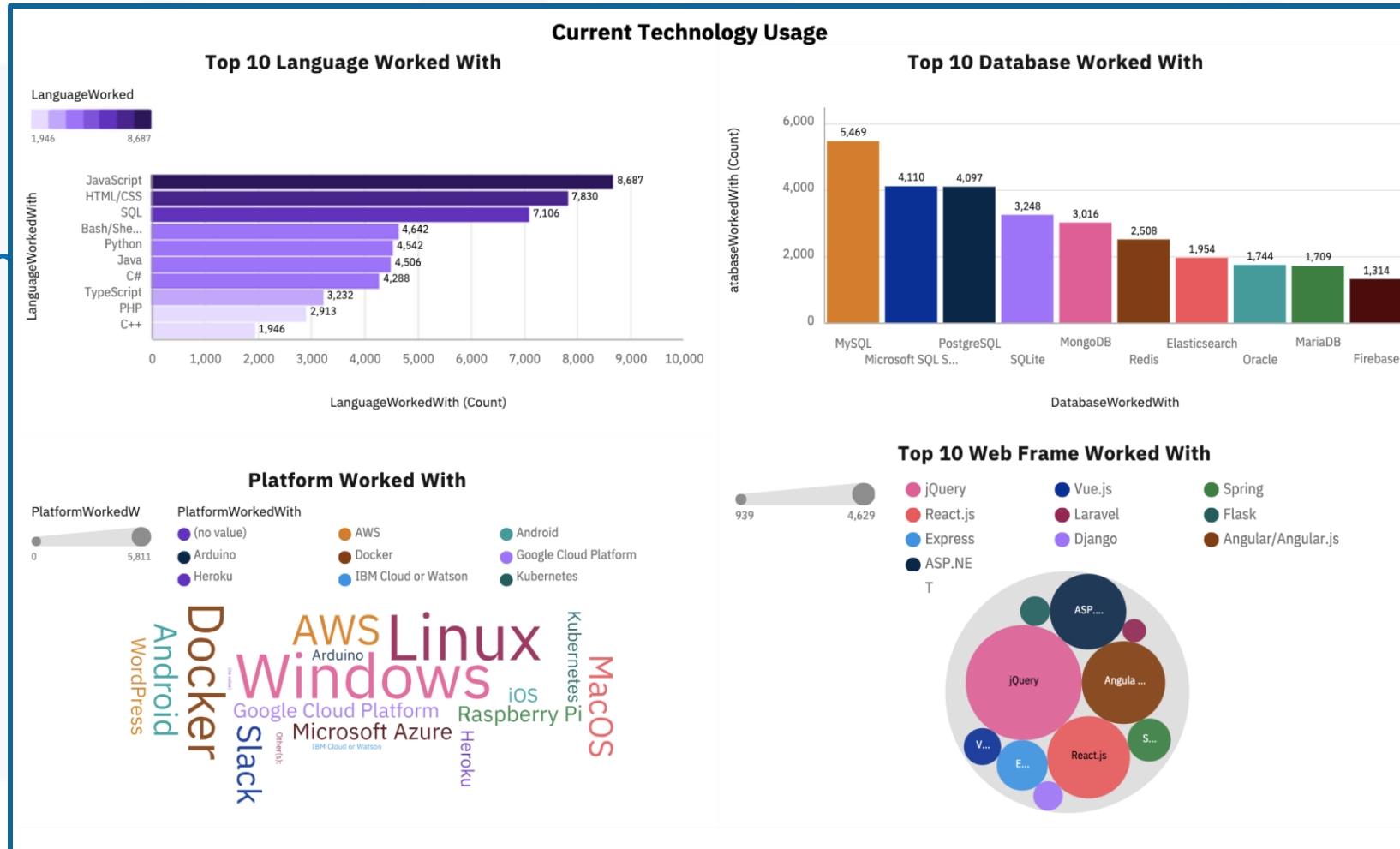
DASHBOARD



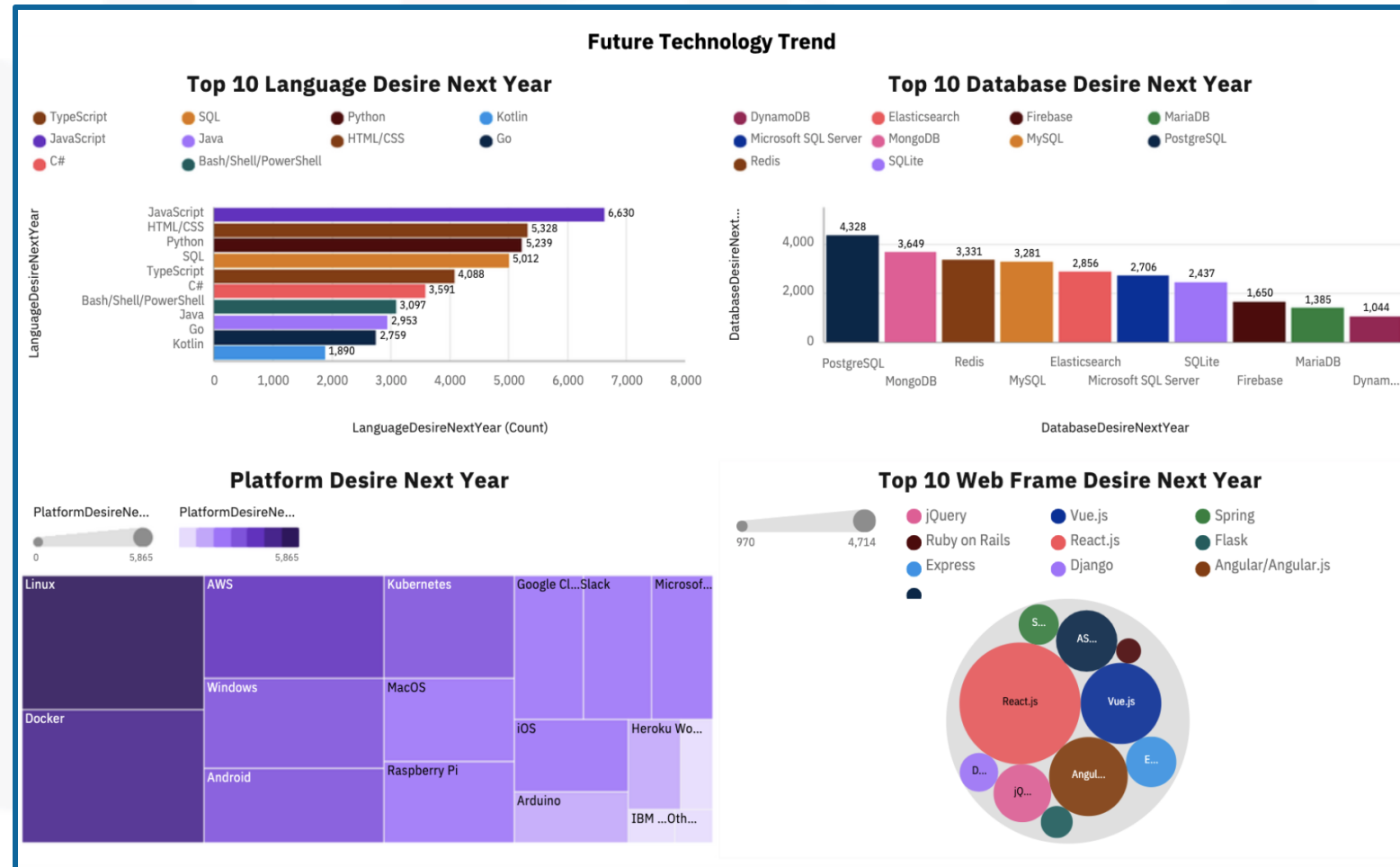
<https://github.com/YoaRiz/IBM-Data-Analyst-Capstone-Project/blob/main/Cognos%20Dashboards.pdf>

DASHBOARD Current Technology Usage

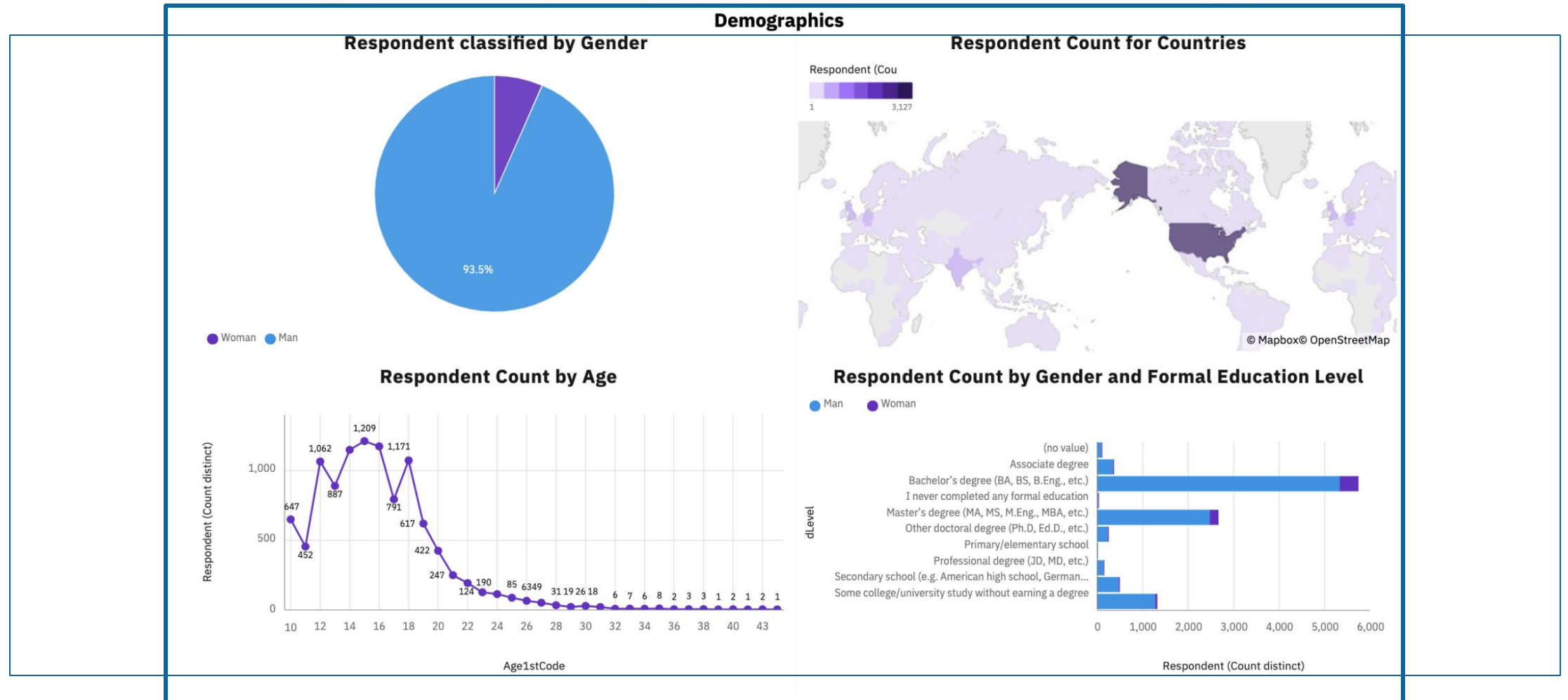
Screensh



DASHBOARD Future Technology Trend



DASHBOARD Demographics



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings:

- The widespread use of JavaScript and HTML/CSS shows how important it is to stay current with web development technologies.
- The popularity of MySQL, PostgreSQL, and Microsoft SQL Server emphasizes the crucial role of good data management in software development.
- The variety of programming languages and databases used by developers highlights the need to understand the strengths and weaknesses of different tools.

Implications:

- JavaScript and HTML/CSS are widely used, showing how important web development is for online platforms and digital experiences.
- Using different databases shows the need for flexible and adaptable data storage solutions. Choosing a database depends on data structure, scalability, and performance needs.
- Popular tools like JavaScript and MySQL are widely adopted because they are reliable and effective. This helps make collaboration and compatibility easier for developers.

CONCLUSION



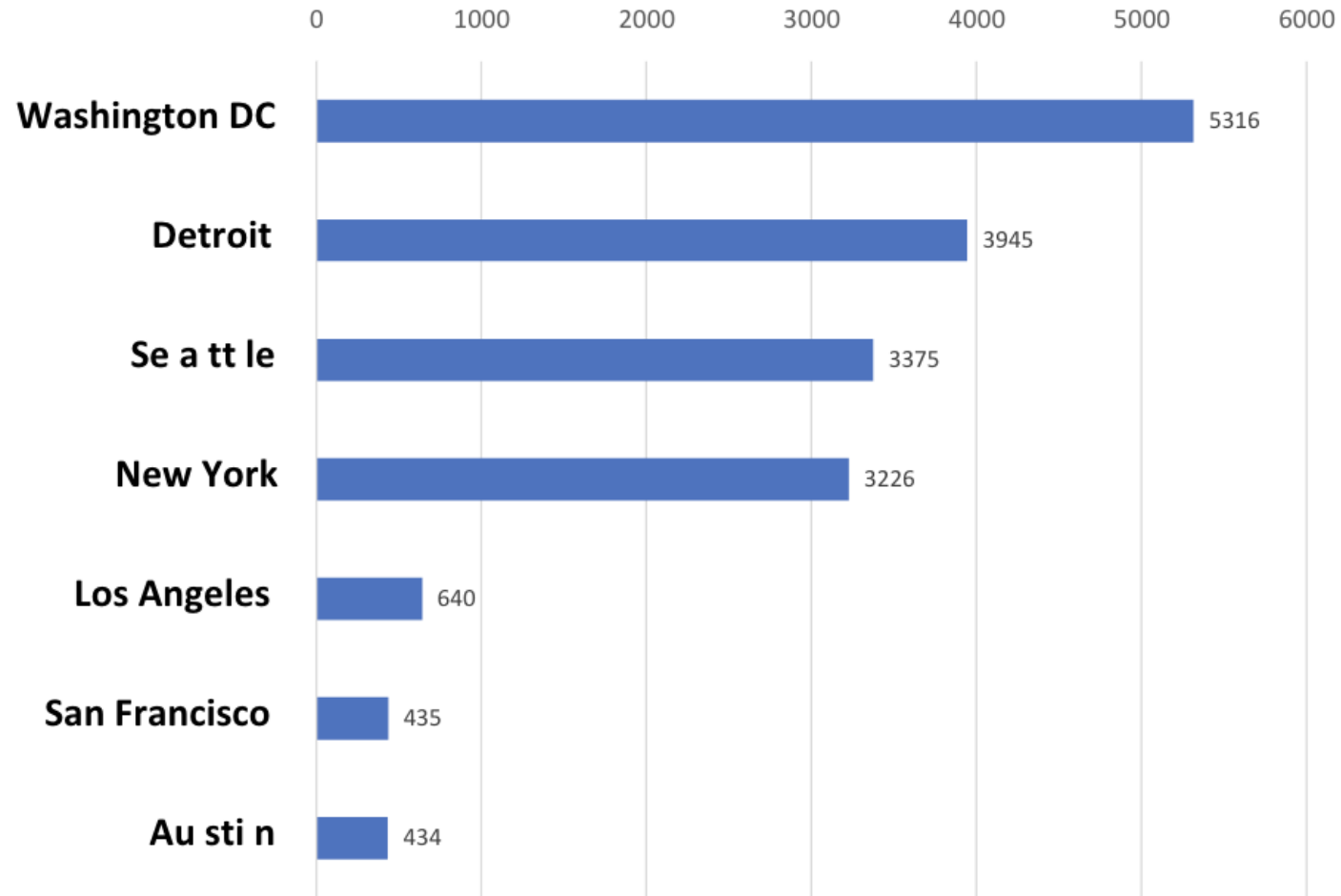
- **Dynamic Programming Landscape:** The findings highlight how technology shapes innovation across different industries.
- **Navigating Change:** Developers need to understand various programming languages and database systems to meet the needs of modern applications and ensure successful software projects.

APPENDIX



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

JOB POSTINGS



POPULAR LANGUAGES

