SURVEY ON STACK OVERFLOW DEVELOPER DATA

Merryl Tuscano

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OUTLINE

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

EXECUTIVE SUMMARY

- Dataset Overview and Introduction
- Methodology
  - Data Cleaning/ Wrangling
  - EDA
  - Data Visualization
- Dashboard and Results
- Results discussion and Findings
- Conclusion

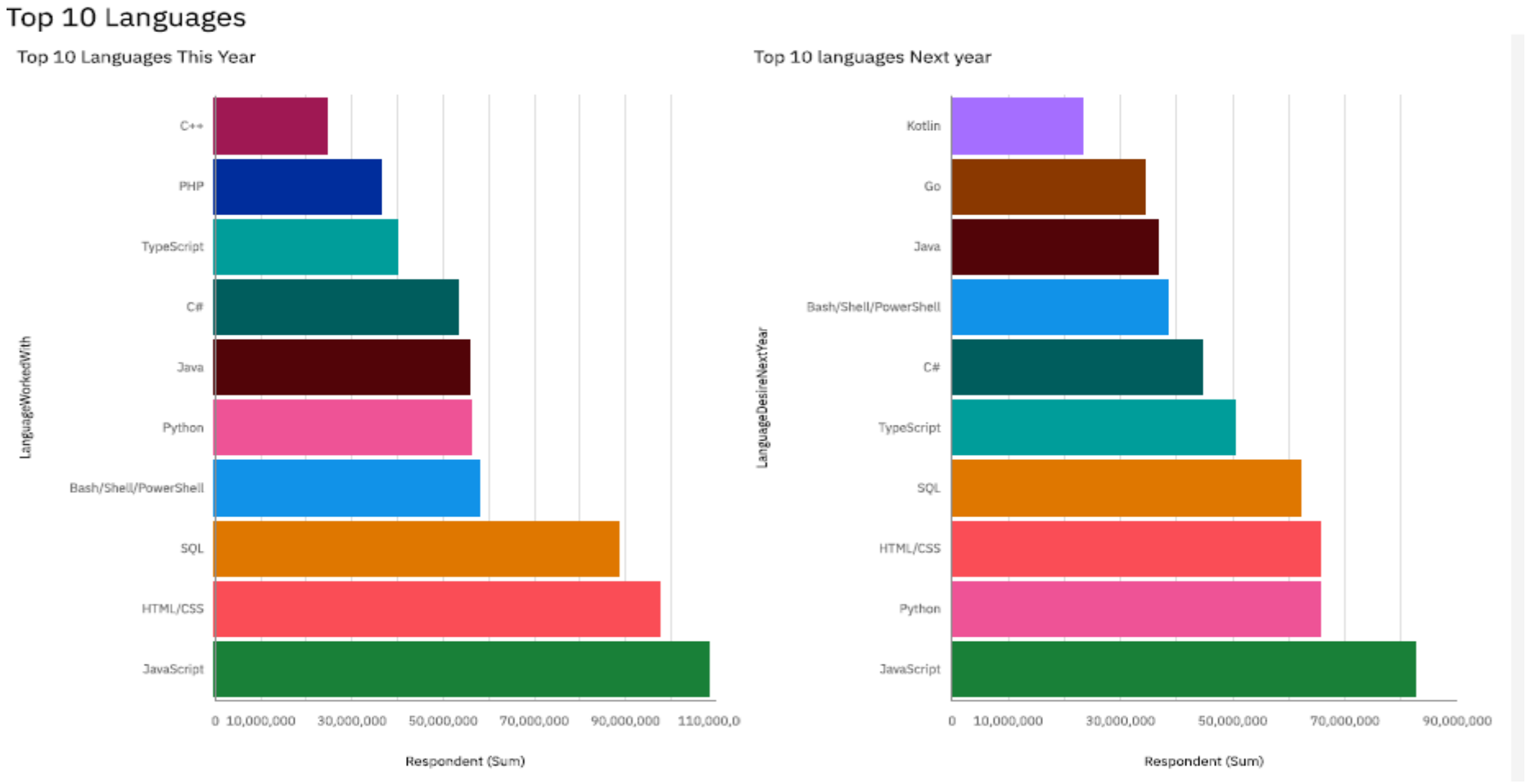
INTRODUCTION

- The Stack Overflow Developer Survey is an annual survey conducted by Stack Overflow, a popular online community for developers
- This project gathers insights into various aspects of the software development industry, including programming languages, frameworks, tools, technologies, job satisfaction, and demographics.
- A dashboard showcasing various patterns and trends such as:
  - Programming Language Popularity
  - Future Technology Trends
  - Developer Demographics by Age/Gender/Education Level.

METHODOLOGY

- Data Collection
  - Using APIs
  - Web Scrapping
- Data wrangling
  - Finding and Removing Duplicates
  - Normalizing Data
- Exploratory Data analysis
  - Data Distribution and Handling Outliers
  - Correlation
- Data Visualization
- Building Dashboards

PROGRAMMING LANGUAGE TRENDS



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

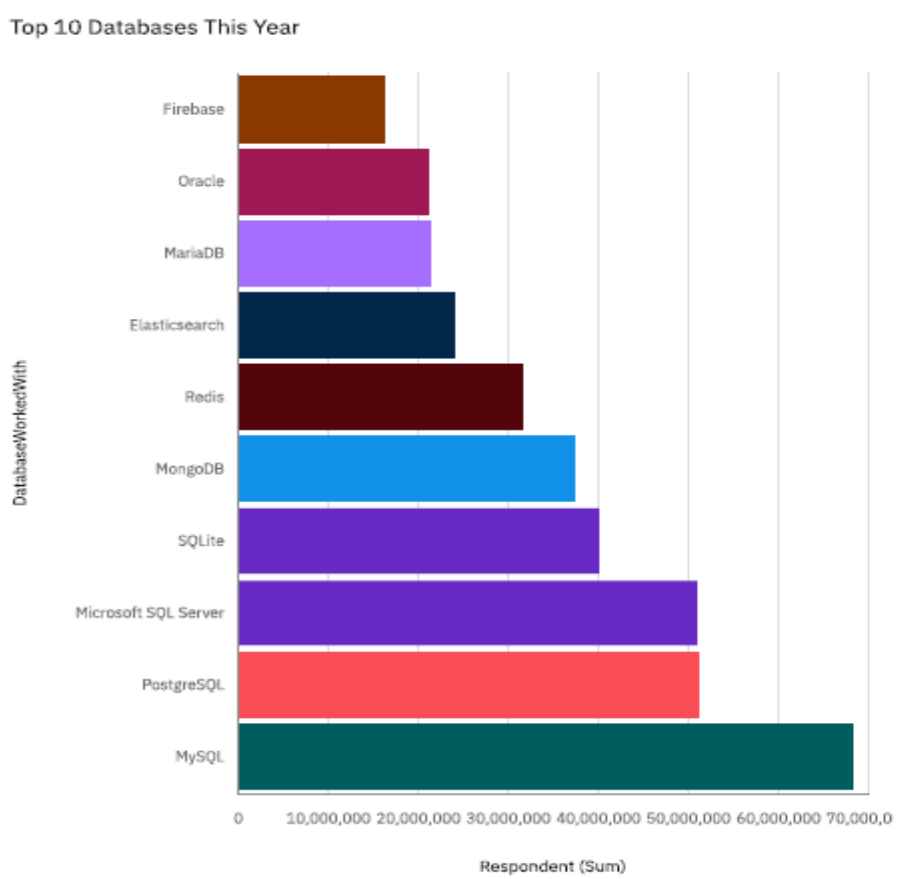
Findings

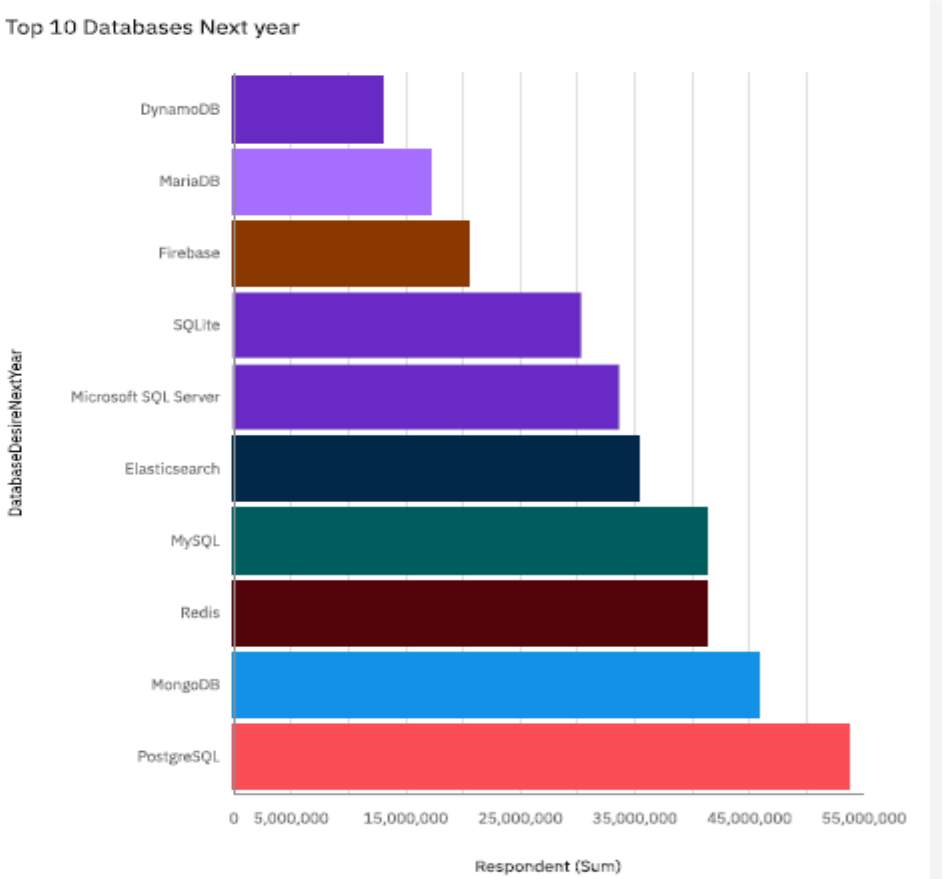
- Javascript is Top Worked on and Desired Language
- C++ not one of Top 10 Next years desired Languages
- Number of respondents has decreased

Implications

- High Demand for Javascript Developers
- Increase maintenance challenge for C++ based platforms.
- Reduced Career opportunities, Dependency on technology.

DATABASE TRENDS





DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most worked on
- Demand for PostgreSQL increased
- Oracle not in the top 10 desired list of next year.

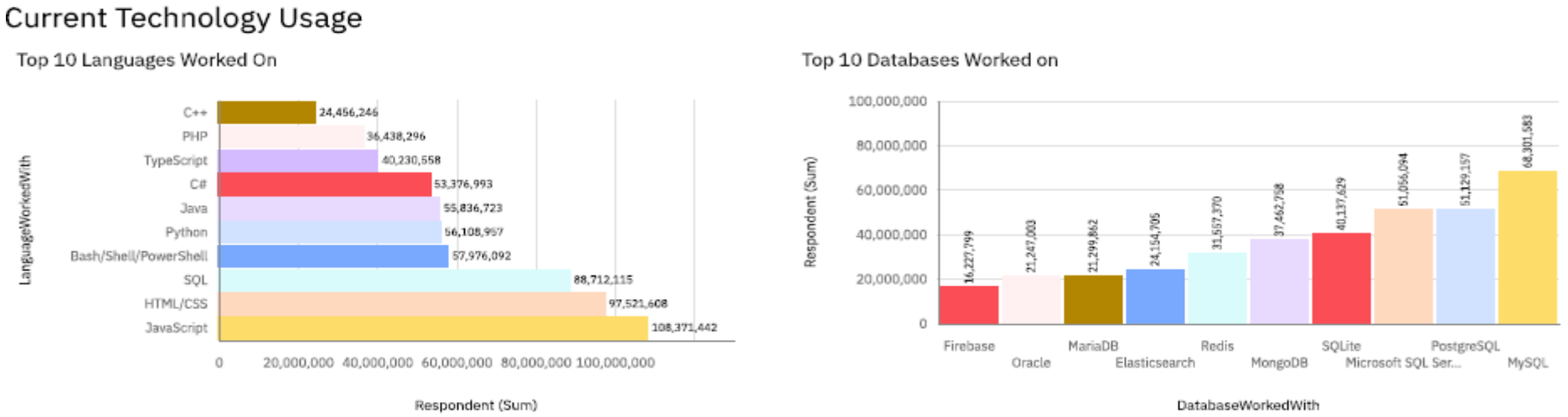
Implications

- Demand for MySQL will increase
- More job opportunities for people skilled with PostgreSQL
- Challenges for Oracles ecosystem.

DASHBOARD

My IBM Cognos DashBoard

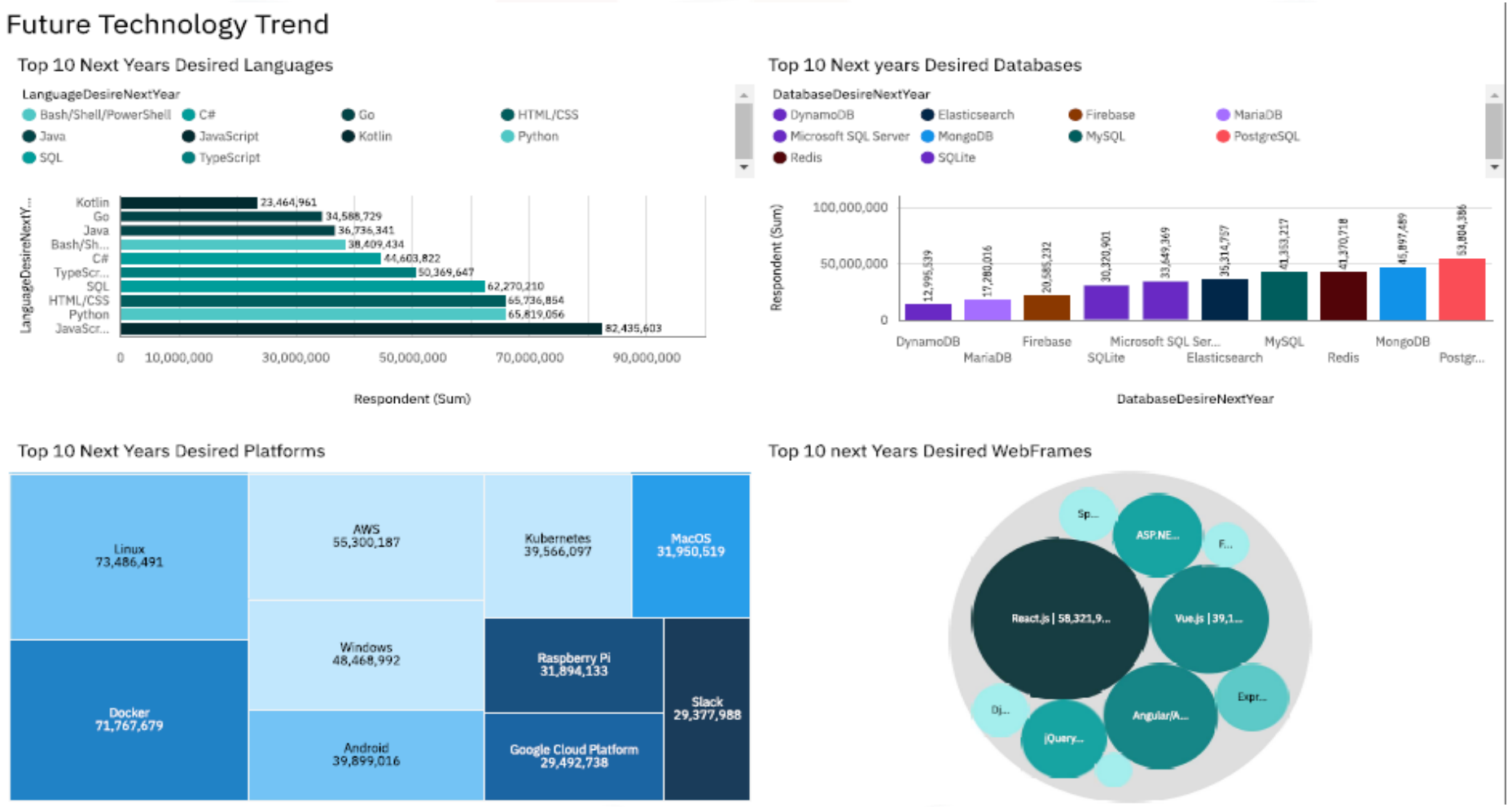
CURRENT TECHNOLOGY USAGE



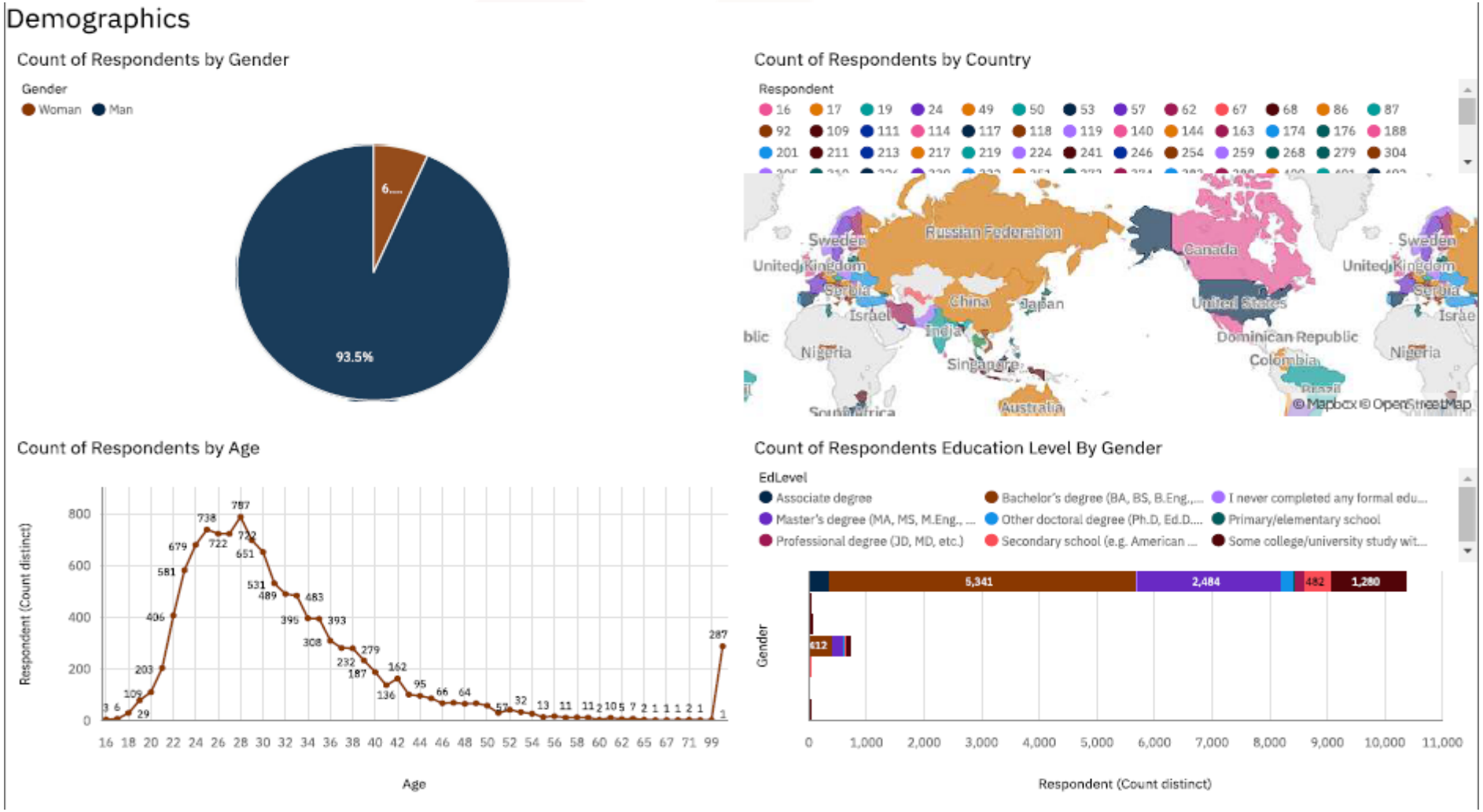
IBM Developer

SKILLS NETWORK

FUTURE TECHNOLOGY TRENDS



DEMOGRAPHICS



DISCUSSION

- There isn’t a massive shift in the current technology trend as compared to future.
- The amount of respondents wanting to learn various programming languages has decreased.
- Maximum number of respondents are men – 93%
- Maximum respondents belong to the age group of 20-30 years of age.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Number of Men is Greater than women
- Youth are more Comfortable with programming languages
- Not a massive shift in current vs Future technology trends.

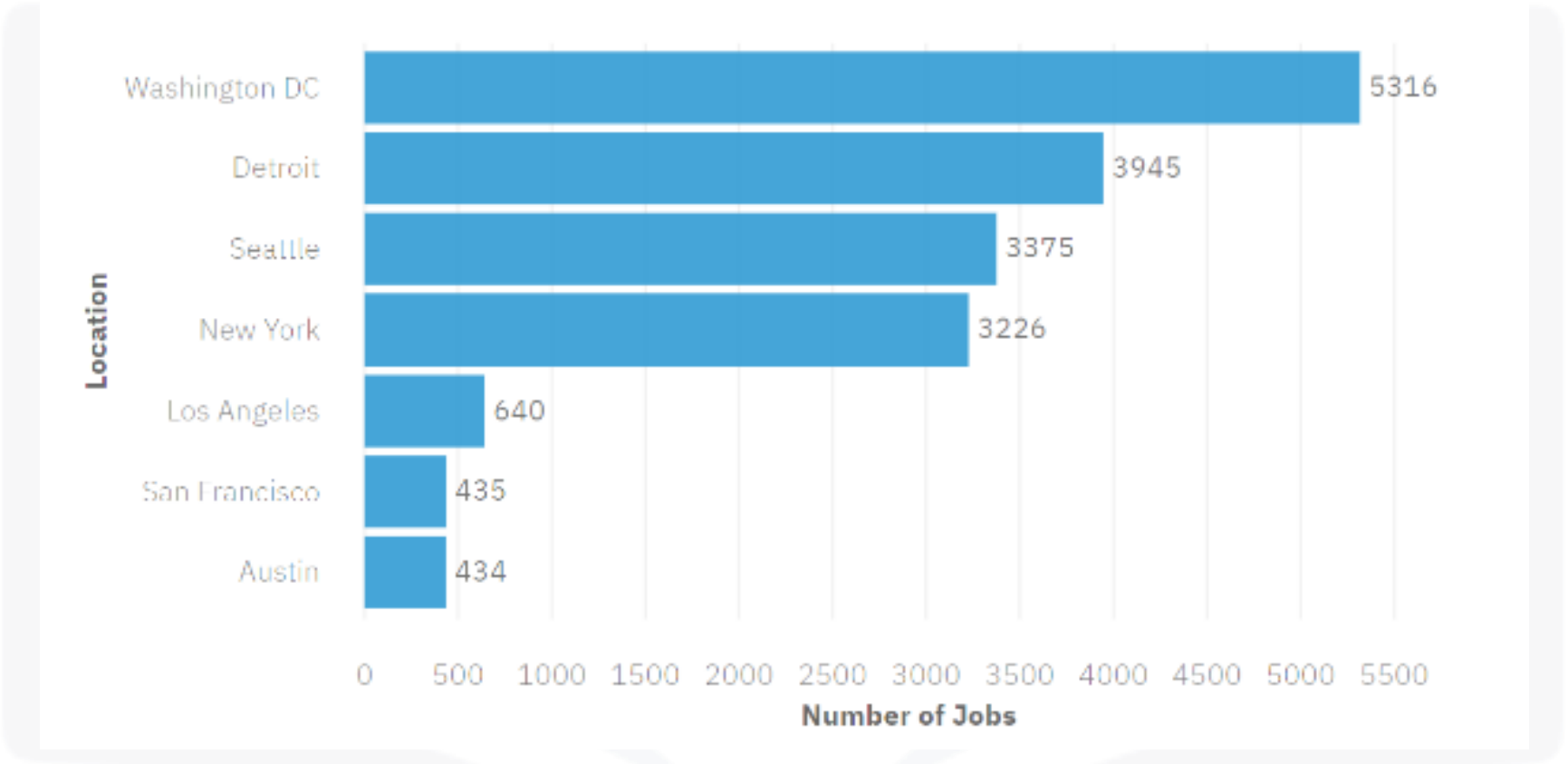
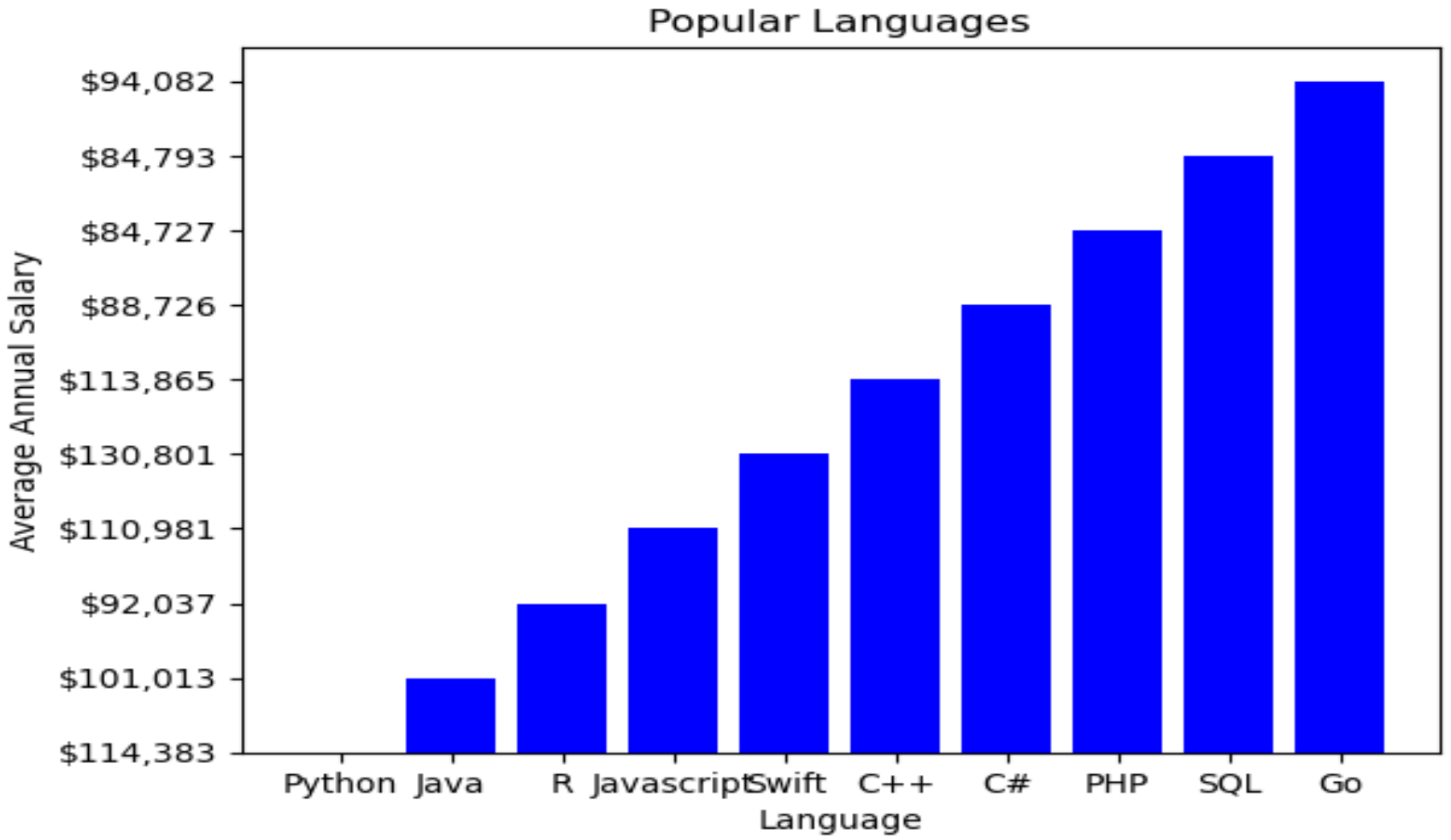
Implications

- Women not being able to be as technology independent and friendly as men
- Early adoption of technology and educational/career opportunities.

CONCLUSION

- Stack Overflow Developer Survey provides valuable insights into the current trends, preferences, and challenges within the global developer community.
- Key takeaways from the survey include the continued dominance of JavaScript as the most popular programming language
- The survey highlights the growing importance of remote work, diversity, and inclusion initiatives within the tech industry.

JOB POSTINGS



POPULAR LANGUAGES