Developer Survey Results

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OUTLINE

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

- Introduction to Survey
- Methodology
  - Languages Used
  - Visualization tools
  - Analysis tools
- Results of the survey
- Implications of the data
- Summary and moving forward

INTRODUCTION

- Stack Overflow’s survey of developers is a large and comprehensive survey
- A random sample of this data was taken to draw conclusions
- Includes current usage statistics and predicted language growth
- Includes developer demographics
  - Results of education level
  - Gender distribution

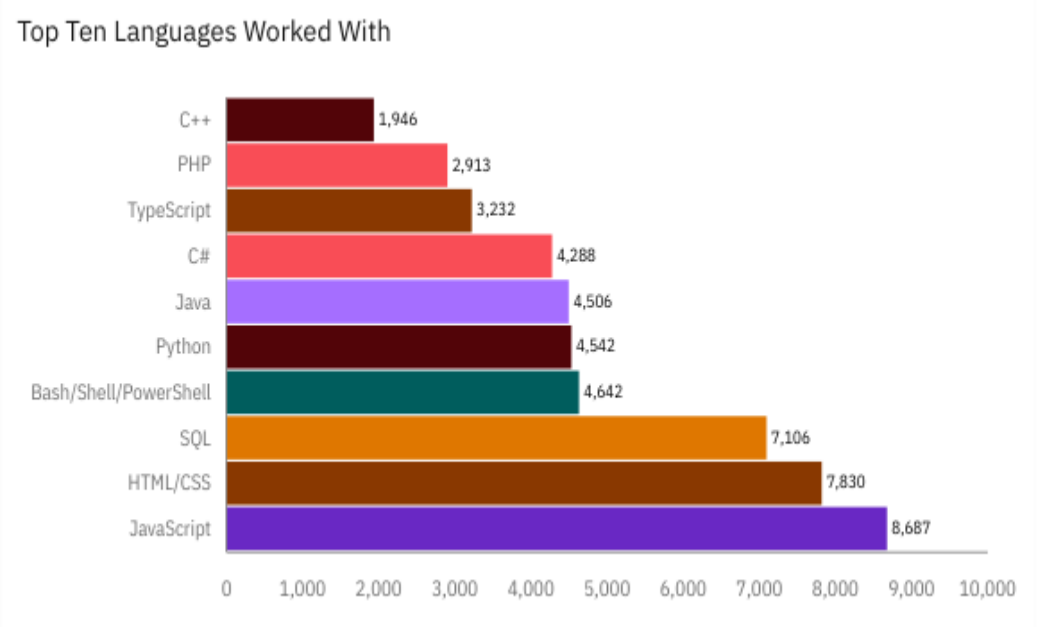
METHODOLOGY

- Web Scrapping and data gathering
  - Using Python and its module, BeautifulSoup and APIs
- Data Wrangling
  - Cleaning data by removing duplicates and missing values
  - Used NumPy and Pandas – Python libraries
- Data Analysis
  - Usage of Pandas and Seaborn – python libraries
  - Used these for analysis of correlation, finding outliers, trends in data
  - Used Python and SQL to generate charts to explore data
- Data Visualization
  - Used Python to generate exploratory charts
  - Used IBM Cognos to generate dashboards for presentation of data insights

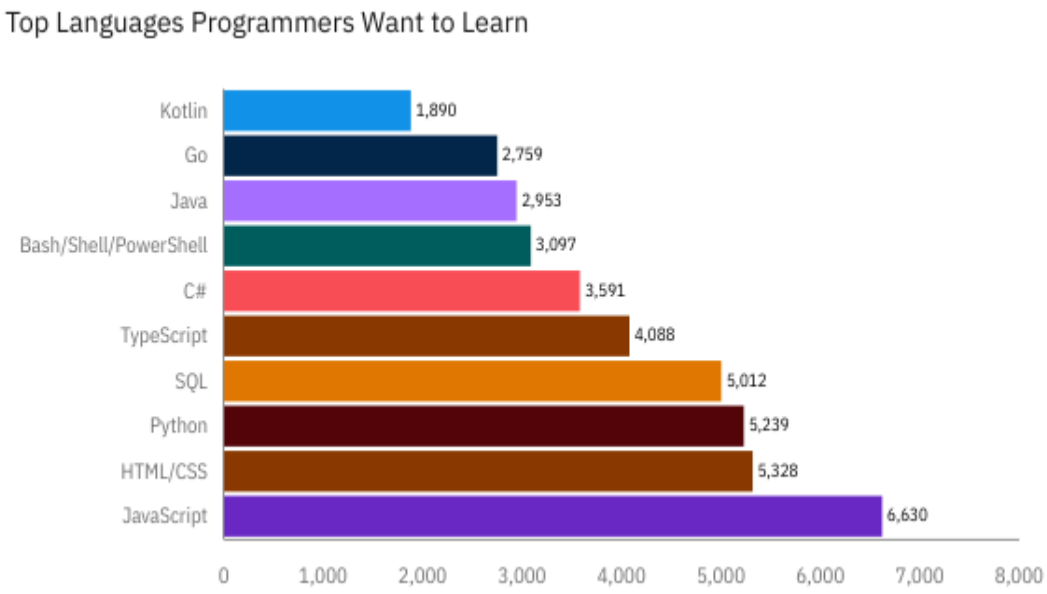
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

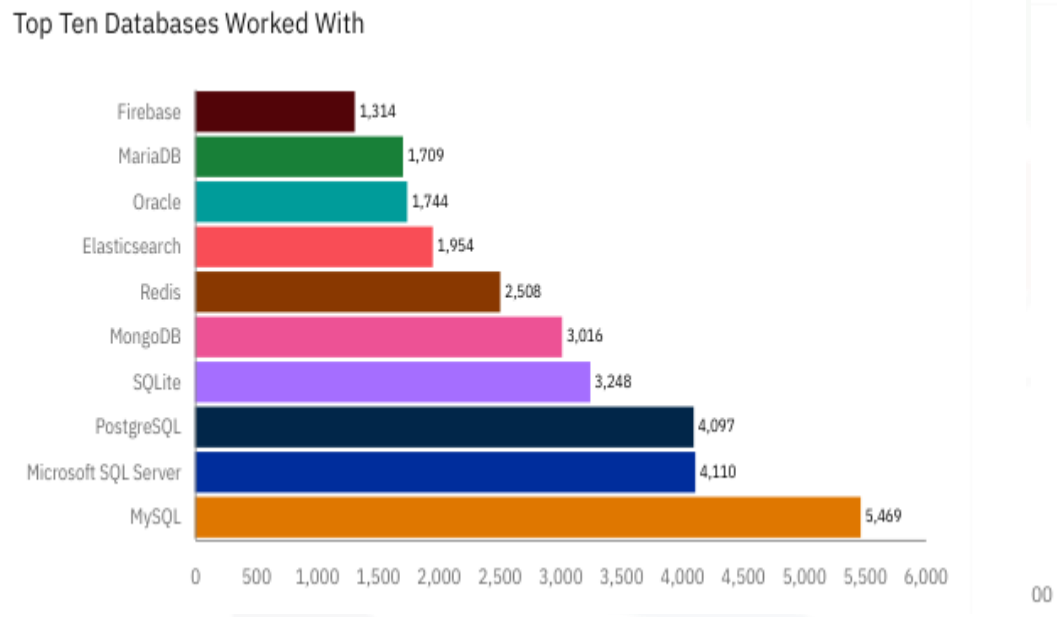
- JavaScript is the top language used and that programmers want to learn
- Kotlin and Go are new languages showing up on the list of languages desired for use
- Python, SQL, and HTML/CSS are not top languages, but solid in the amount of use and interest

Implications

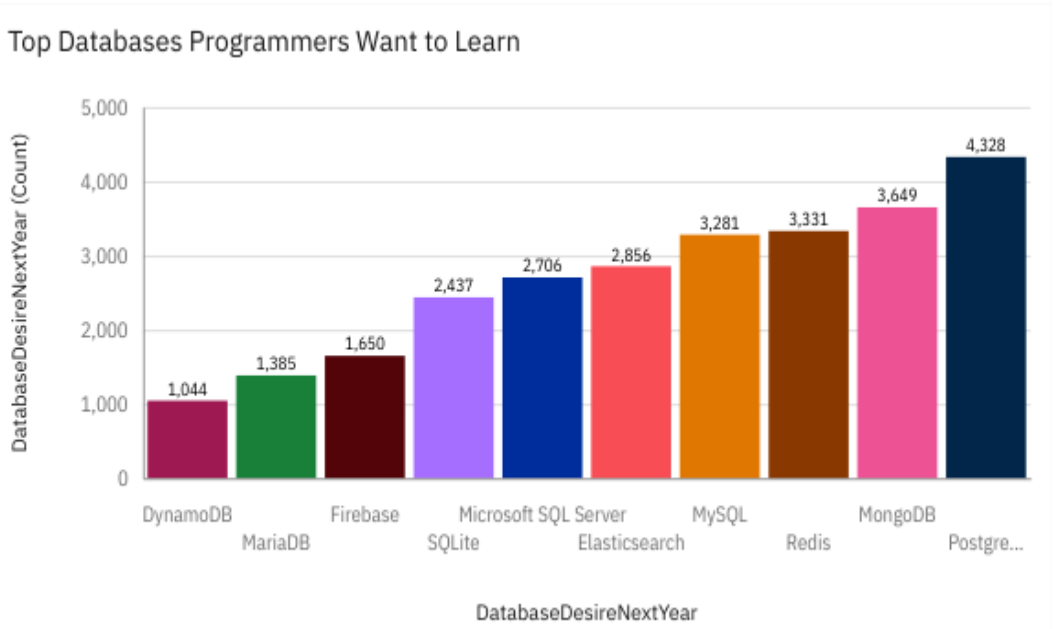
- JavaScript shows the potential for the most growth
- Kotlin and Go – both languages in use for Google – have generated interest in programmers
- Full stack development – Python, JavaScript, HTML/CSS – show consistent interest and use

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most used database
- MongoDB and Redis have interest from developers
- Microsoft, Progestre, and MySQL are the top three databases used

Implications

- With a lead in usage and interest, MySQL is a good choice for database use with its developer base
- MongoDB and Redis show potential for growth
- With interest in them, the top three databases do not seem to be in danger of changing

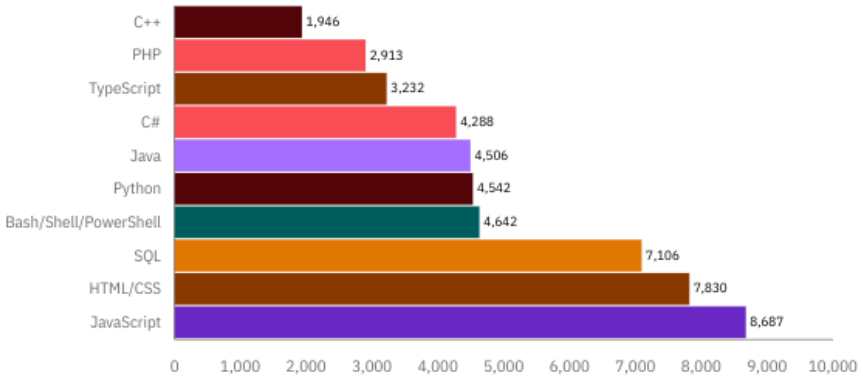
DASHBOARD

https://github.com/Aurelia-J-C/IBM_Final_Project_Corvia/blob/main/IBM%20final%20Project.pdf

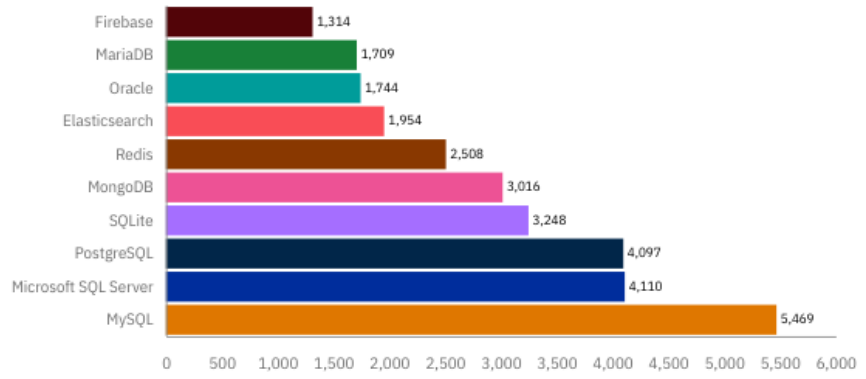
DASHBOARD TAB 1

Current Technology Usage

Top Ten Languages Worked With

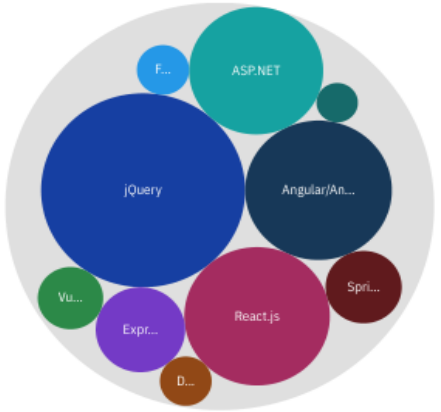


Top Ten Databases Worked With



Preferred Platform

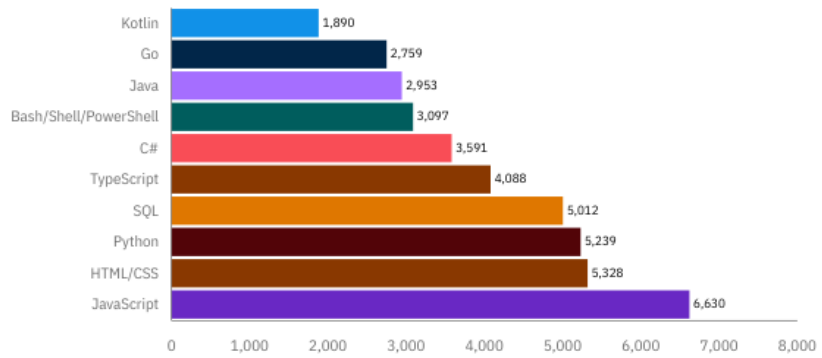
Top 10 Webframes



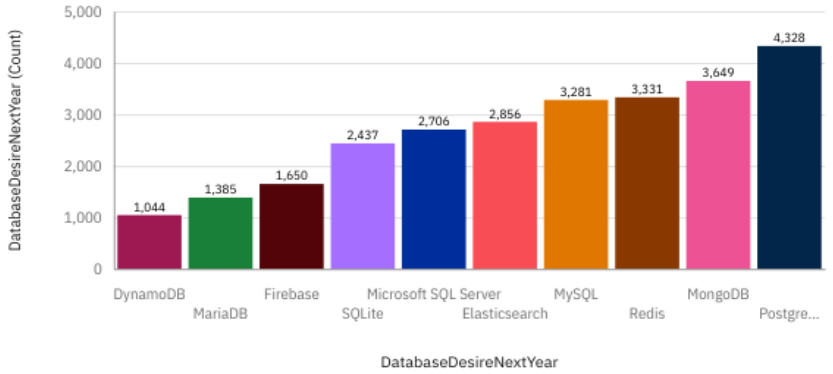
DASHBOARD TAB 2

Future Technology Trend

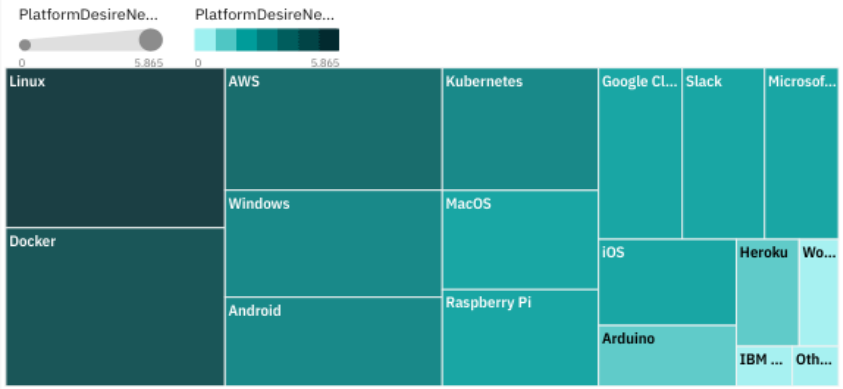
Top Languages Programmers Want to Learn



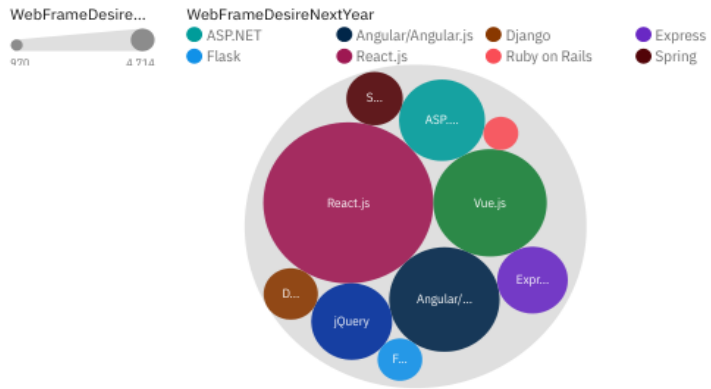
Top Databases Programmers Want to Learn



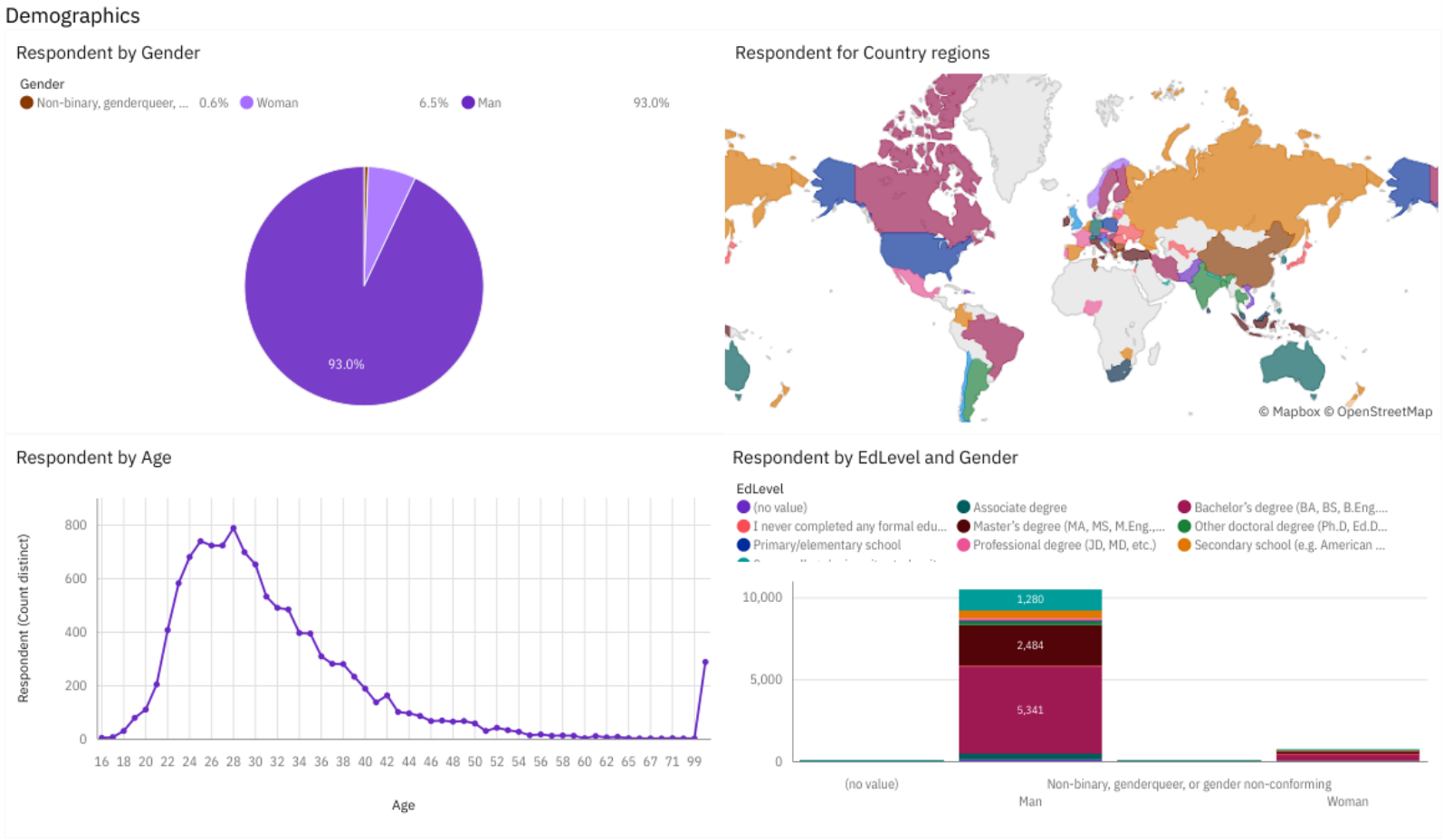
Platforms Programmers Want to Learn



Top Webframes Programmers Want to Learn



DASHBOARD TAB 3



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- The vast majority of respondents identified as male
- Most developers have a formal education
- Linux, Docker, and AWS are three platforms with interest

Implications

- Further research could be done to see how the developer environment treats gender minorities
- What space does the developer environment have for self taught programmers?
- Potential for more Linux integration could drive sales

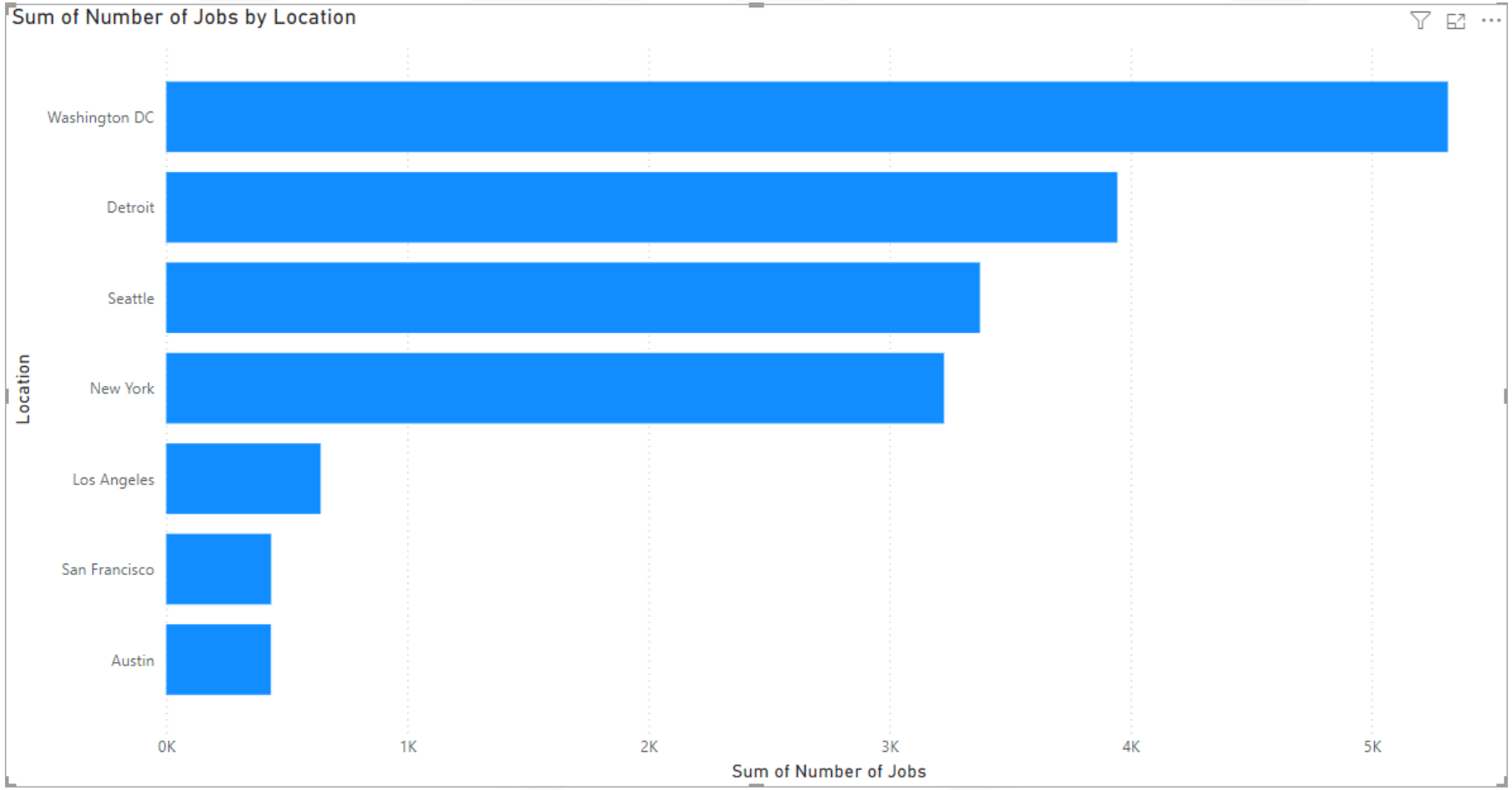
CONCLUSION

- JavaScript shows the most potential for growth with an already solid userbase
- MySQL, Microsoft SQL, and Progestre SQL show solid userbases and interest
- Google languages like Kotlin and GO show increased interest
- Linux integration could attract more developers

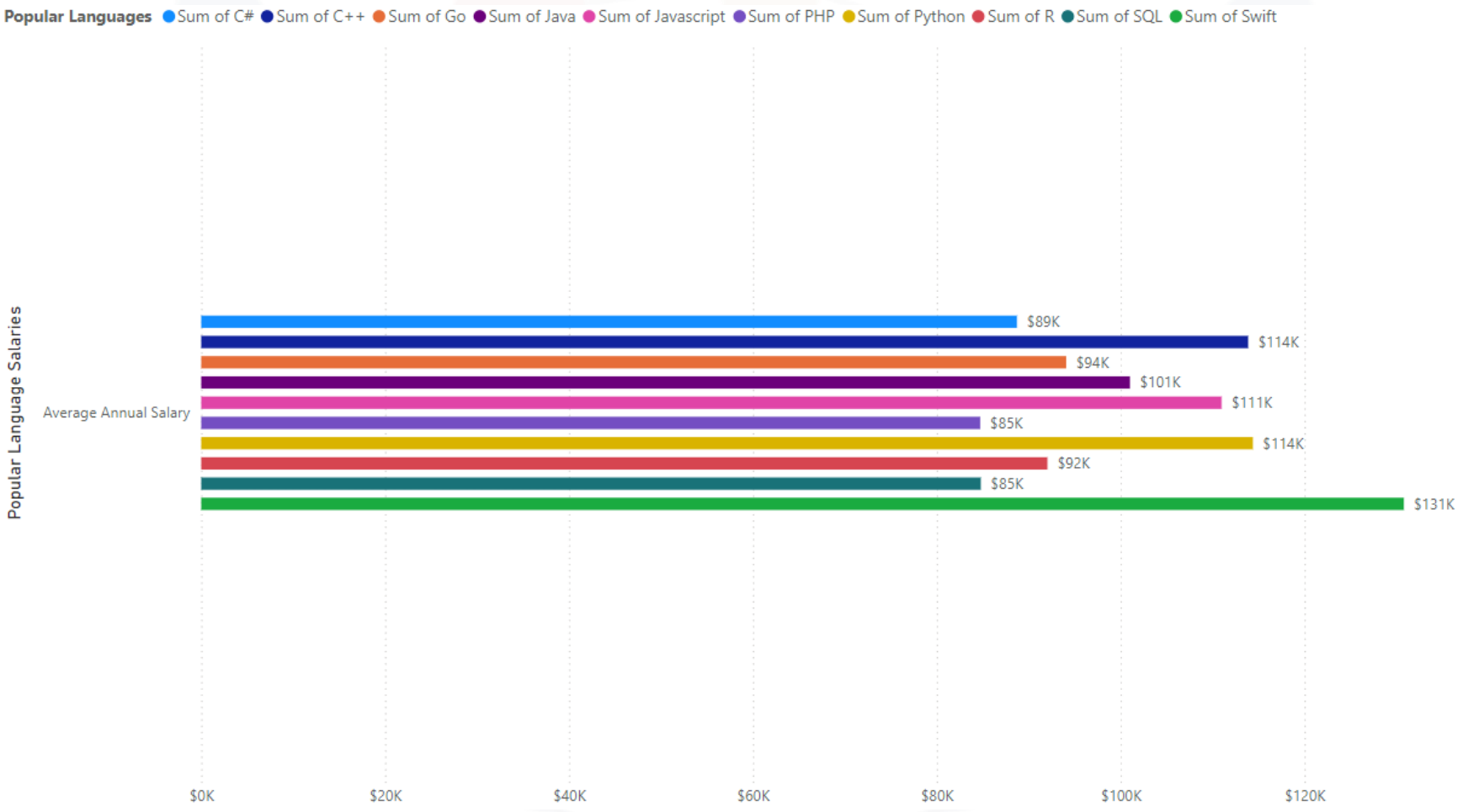
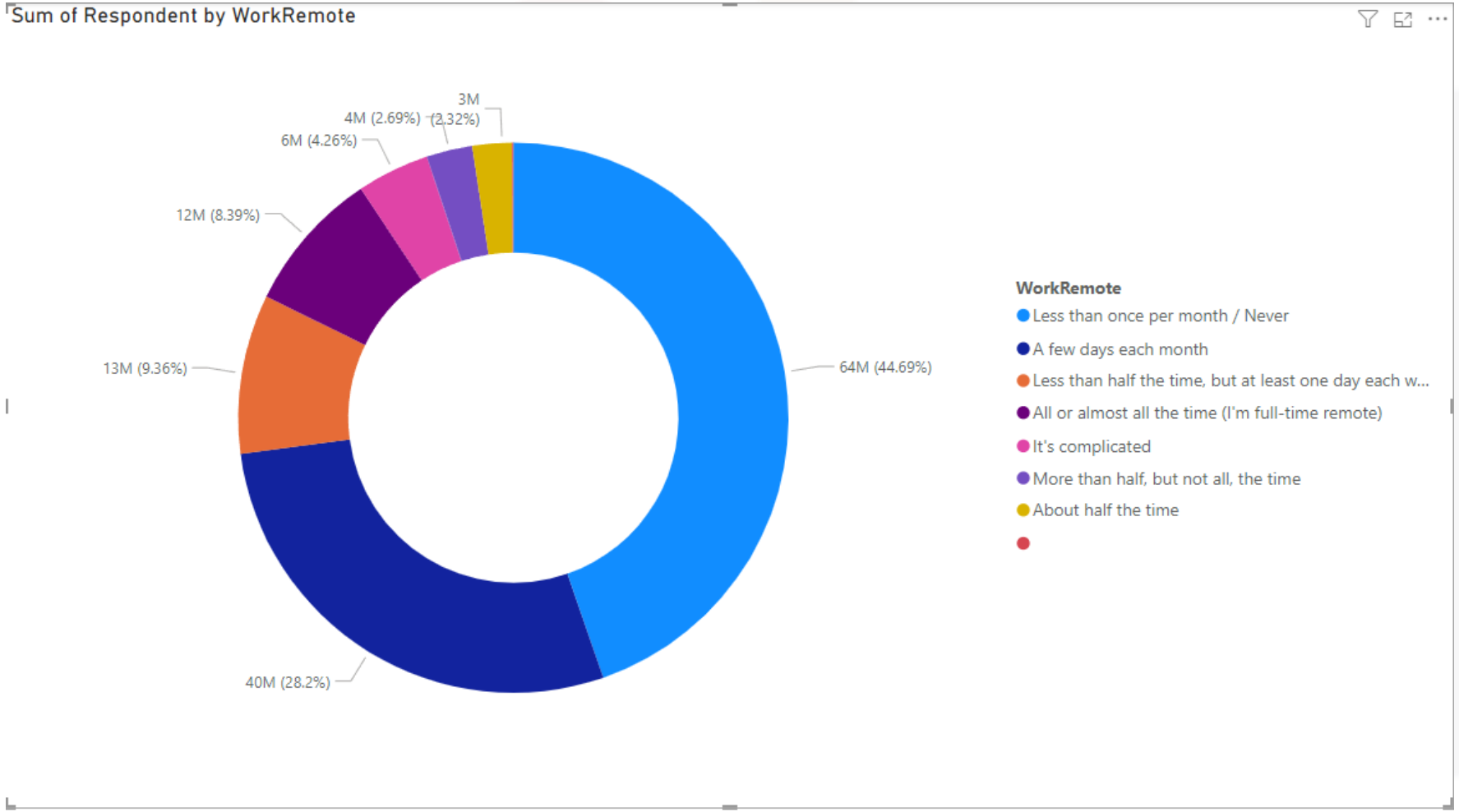
APPENDIX

- Further insights
- Major city centers show the most developer job postings
- Further research into remote work could lead to more insights

JOB POSTINGS



POPULAR LANGUAGES



Percentage Remote