Analysis of Stack OverFlow Data

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09/26/2022

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SKILLS NETWORK

OUTLINE

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EXECUTIVE SUMMARY

- IT is an ever-evolving field with many new technologies introduced in a rapid bases
- It is important to provide your developers with the best possible technologies to keep the company ahead
- Data presented will show current and future technologies utilized by developers

INTRODUCTION

- This presentation aims to show future skill requirements necessary for companies moving forward
- It will also help make data-driven hiring choice

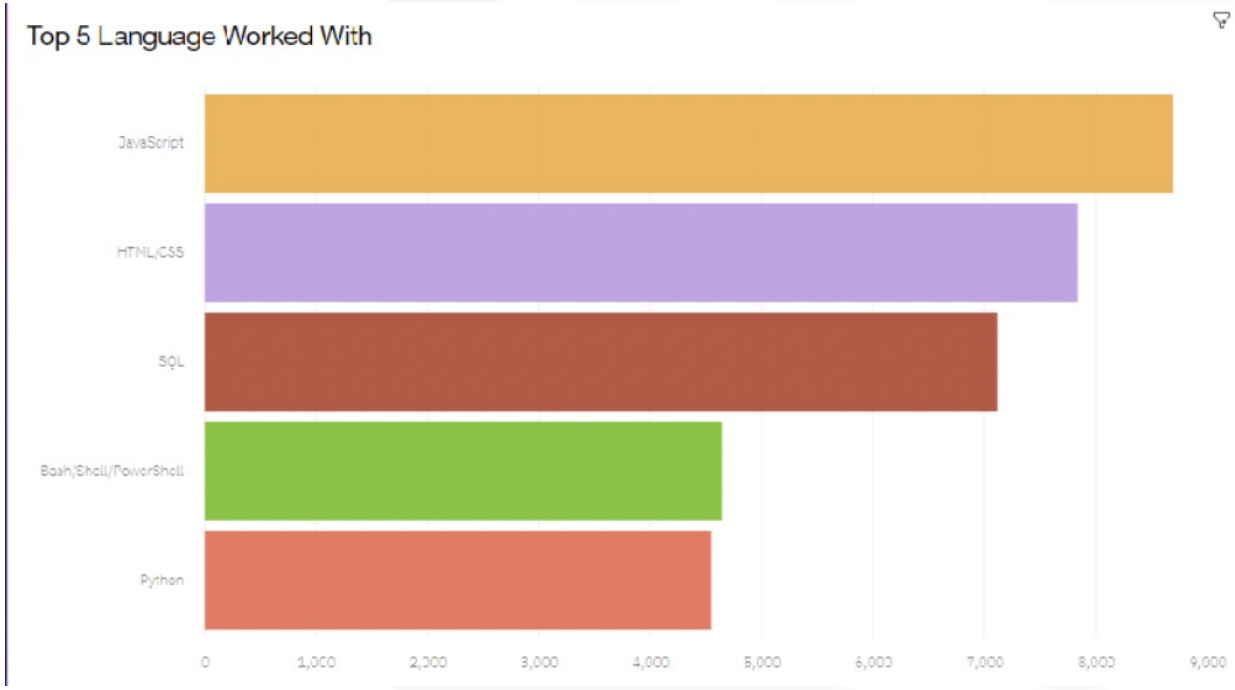
METHODOLOGY

- A modified version of a Stack Overflow data set was used to pull current and future trends in technologies being used.
- The data was wrangled and cleaned for analysis and visualization
- Both Python and IBM Cognos Analytics was used to help visualize the data
- Average Salaries were obtained by utilizing web scraping

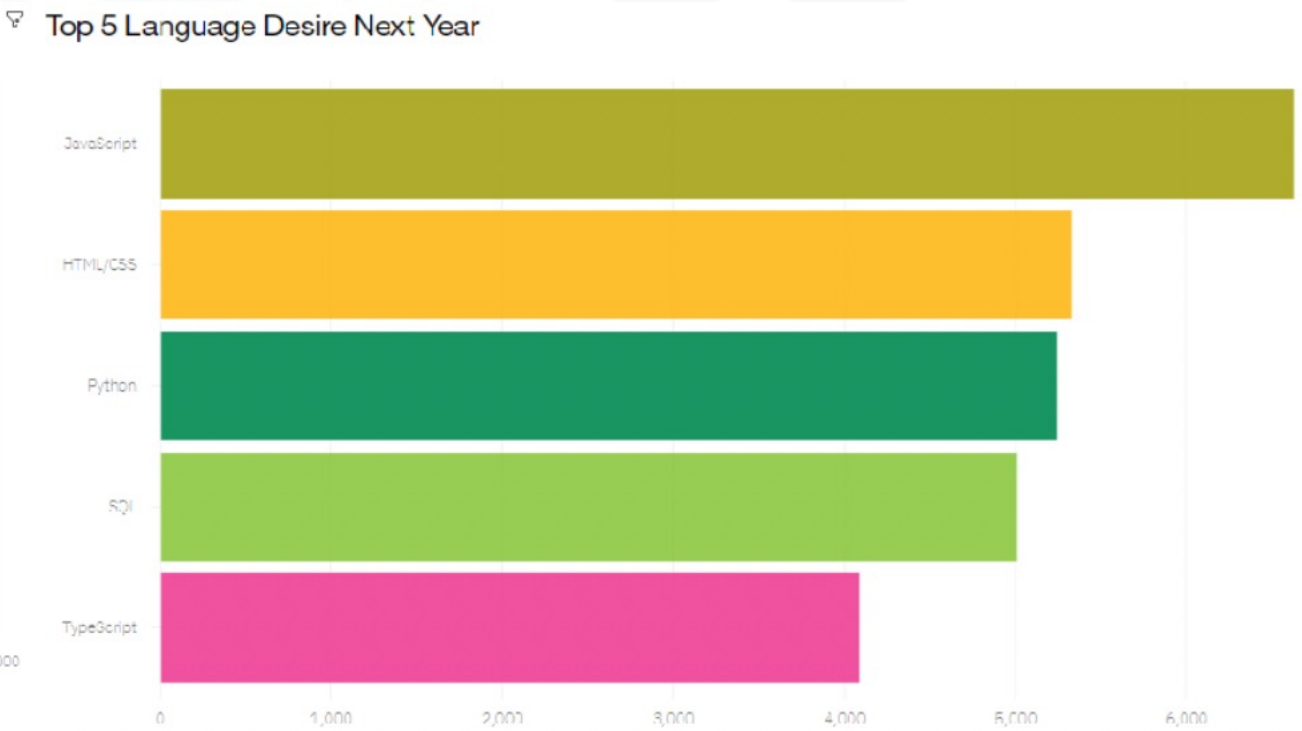
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

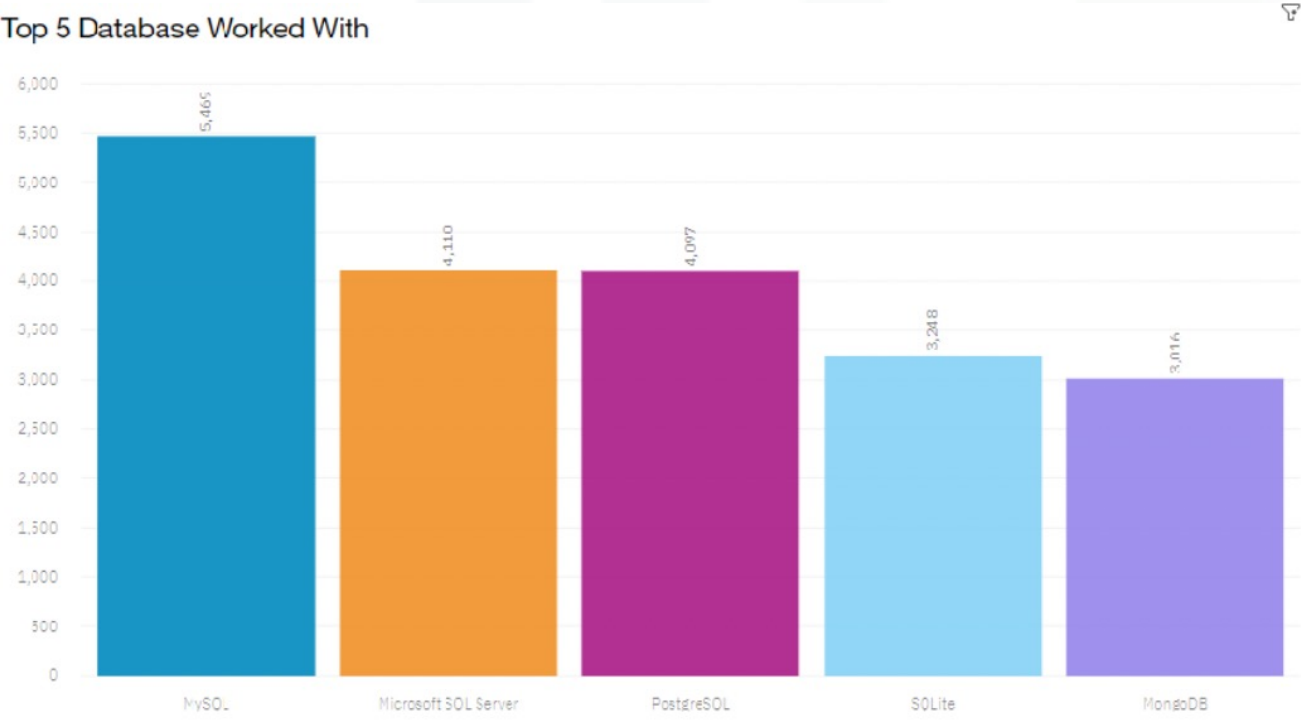
- JavaScript is the most popular language currently
- HTML/CSS continues to be a close second
- Python seems to be at the very bottom of the top 5 languages

Implications

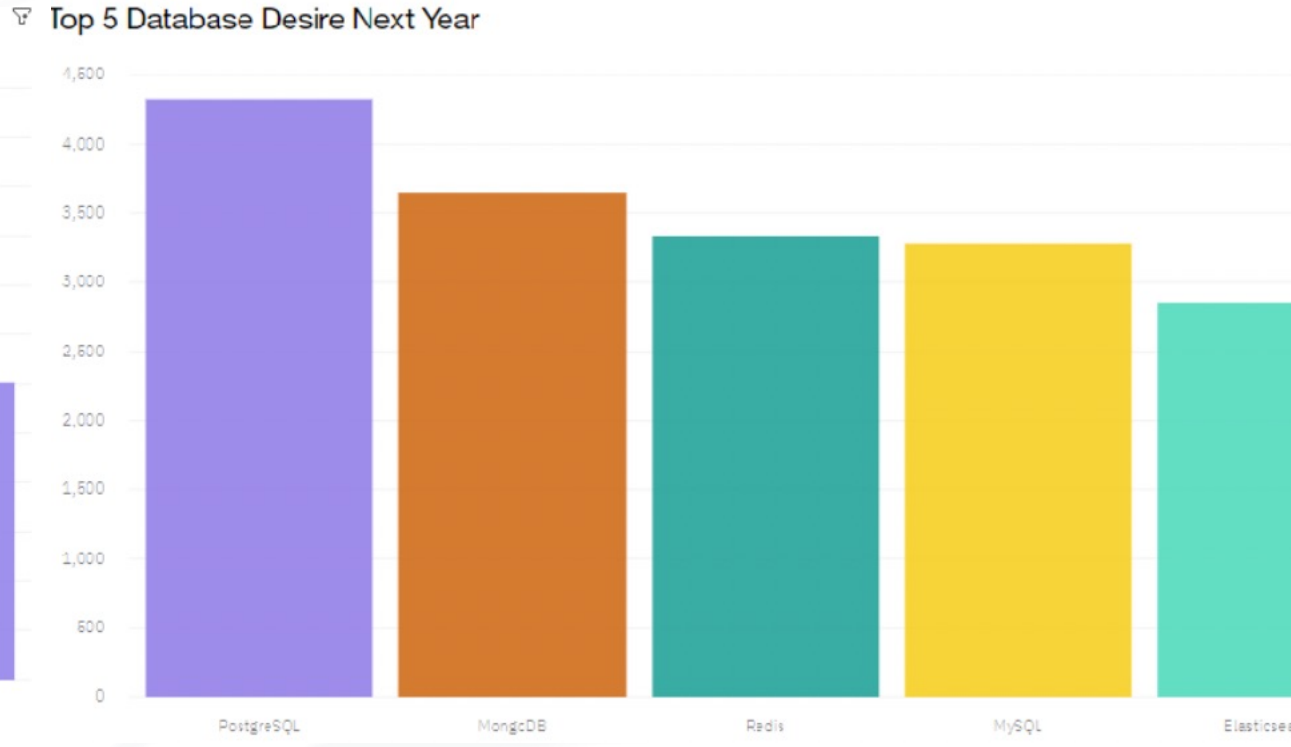
- JavaScript and HTML/CSS continue to be the most popular languages
- Python has jumped from 5th to 3rd most desired language
- TypeScript is now the 5th most desired language

DATABASE TRENDS

Current Year



Next Year



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SKILLS NETWORK

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL appears to be the leading Database to work with
- Microsoft SQL Server appears to be the second most popular database to work with
- MongoDB appears to be the least popular out of the top 5 databases to work with.

Implications

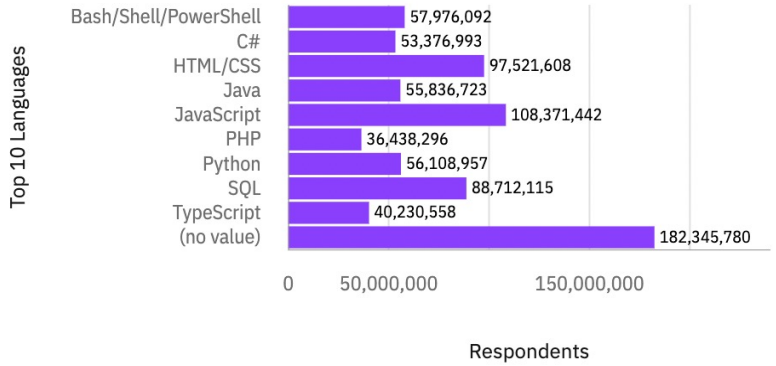
- PostgreSQL is projected to be the most popular database to work with next year
- MySQL is projected to go from the leading database technology to the 4th most popular database
- Redis is also projected to appear on the Top 5 while Microsoft SQL Server is off the top 5

DASHBOARD

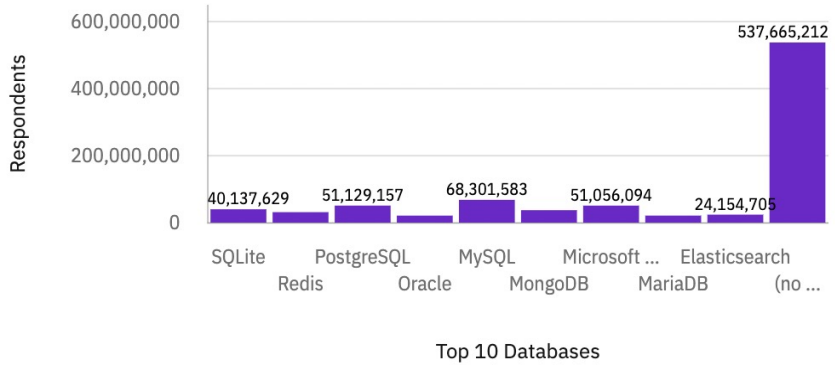
Here is the link to the dashboard created from the data :
https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FIBM%2BData%2BAnalyst%2BCapstone%2BFinal&action=view&mode=dashboard&subView=model000001837b078da8_00000000

Current Technology Usage

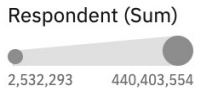
Respondent by LanguageWorkedWith



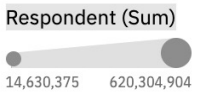
Respondent by DatabaseWorkedWith

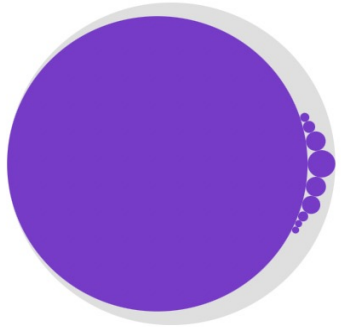


PlatformWorkedWith sized by Respondent

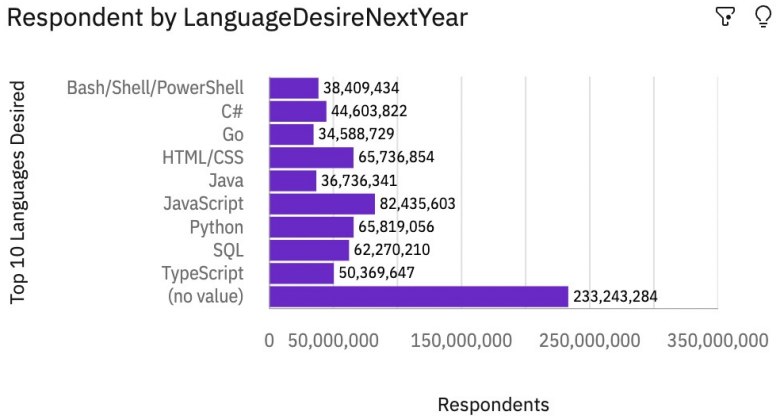


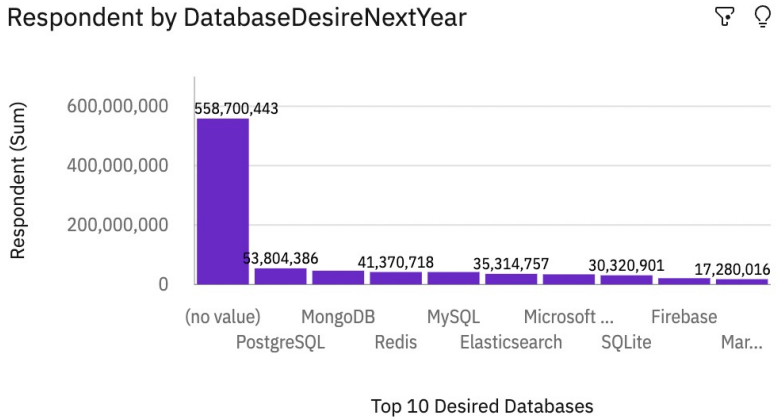
WebFrameWorkedWith, Respondent

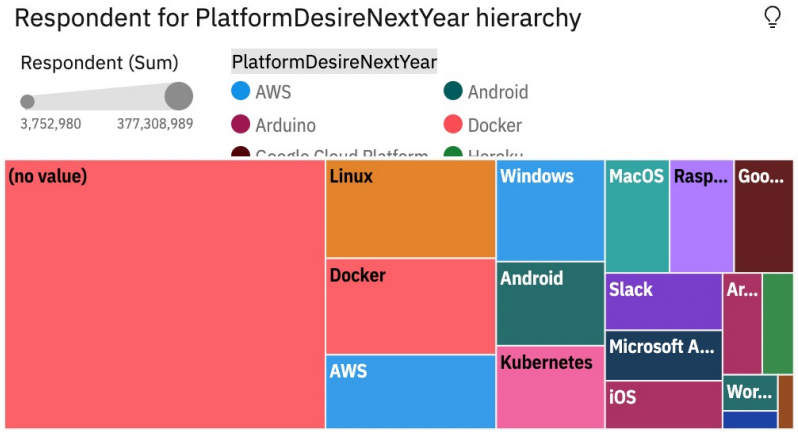


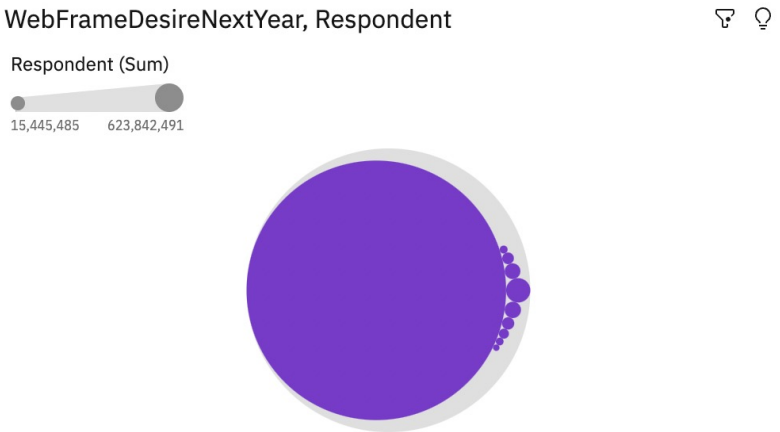


Future Technology Trend

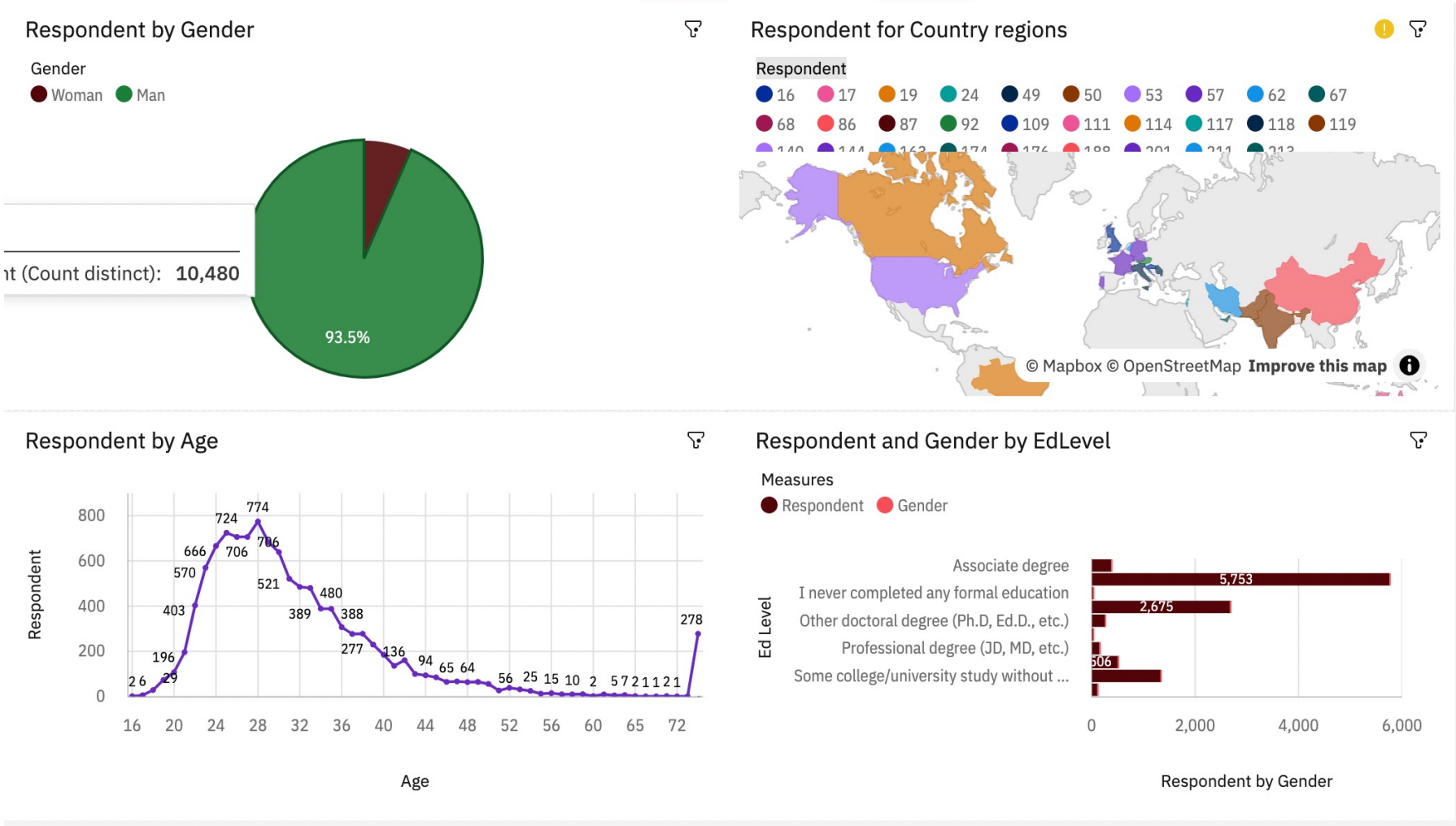








Demographics



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- Interest in Python grew quite a bit, and JavaScript as well as HTML/CSS continue to be quite popular
- Database technology changed around quite a bit based on the projected trend
- Men seem to dominate development as a career

Implications

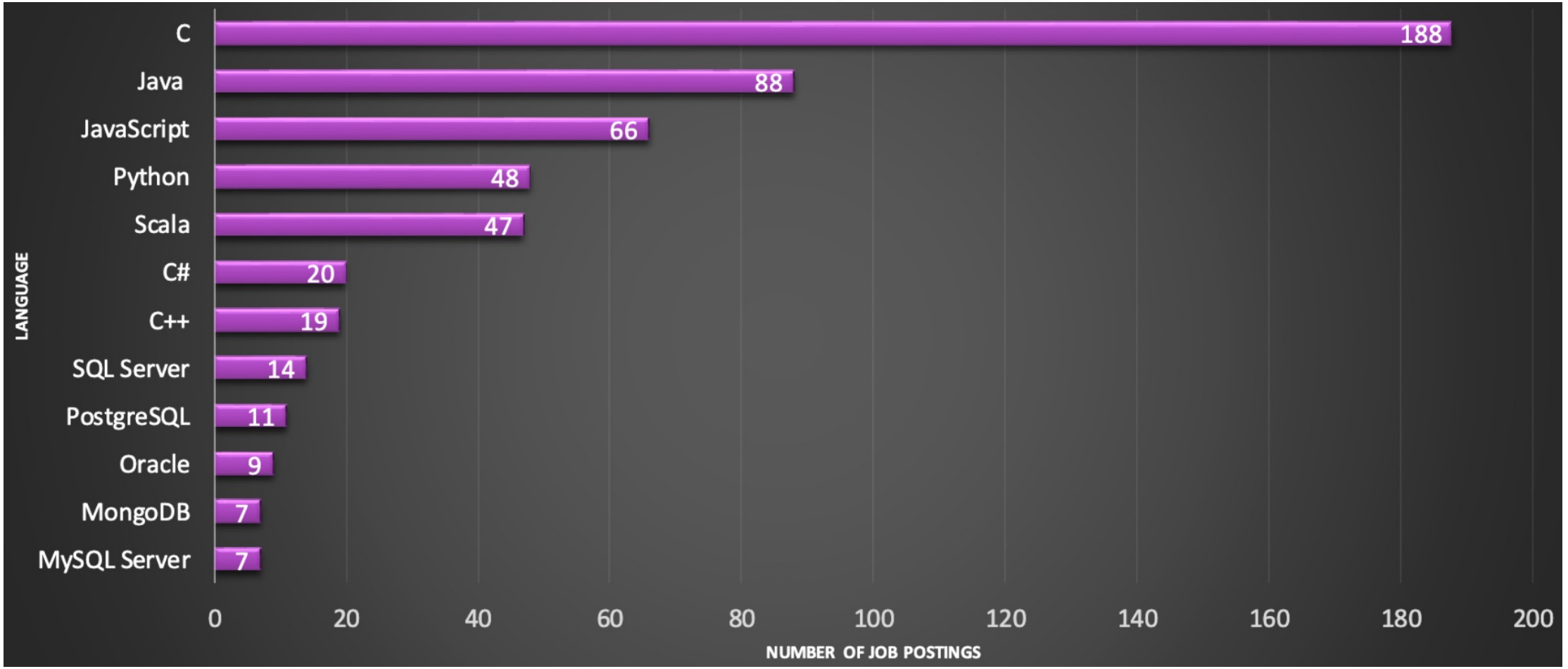
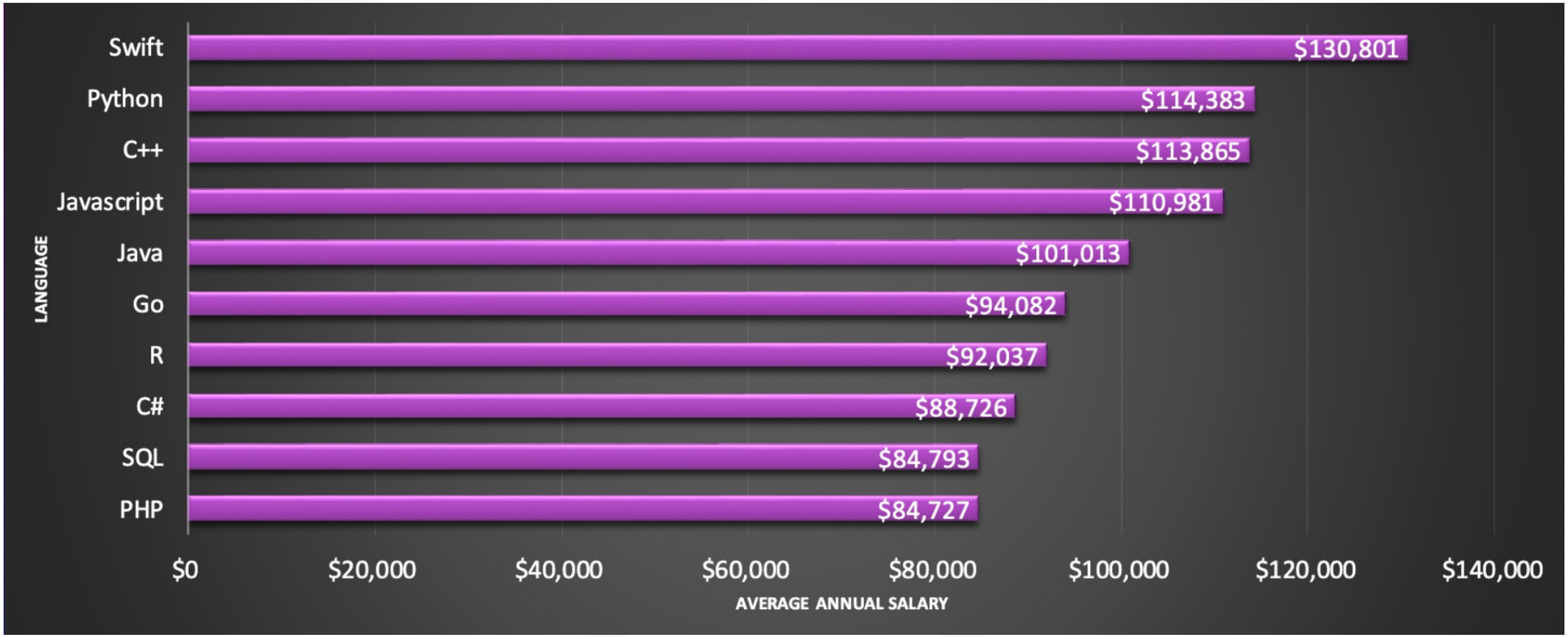
- Continue to hire people with JavaScript and HTML/CSS knowledge, but also start including people with knowledge of python.
- Due to the rapidly changing pace of Database technologies, hire new people with the skills projected for next year
- Start putting out ads to attract more women to development as a career

CONCLUSION

- Hire new people with knowledge of recent Database technologies
- Teach people who know JavaScript and HTML/CSS Python
- Cycle out less prevalent technologies to make the company more efficient

APPENDIX

JOB POSTINGS



POPULAR LANGUAGES