Analysis of Tech Trends

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EXECUTIVE SUMMARY

- The analysis was done a subset of the Stack Overflow Developer Survey 2019 dataset
- Many technoligies area always relevant, such as Javascript
- Oracle, PHP and C++ are slowly becoming obsolete
- Go, Kotlin, and DynamoDB are important new technologies.
- Learning new skills and technologies is an important skill for tech professionals.

INTRODUCTION

- Tech is a continually growing sector, with
  - Many different types of jobs exist within the Tech sector.
  - Many different technologies are used by Tech professionals, even by people doing the same job.
- There is always a need for qualified tech professionals, with the requisite skills required for their jobs.
- Tech skills include programming languages, databases, platforms and web frames.
- The purpose of this analysis is to find which of these skills are desired in the sector.

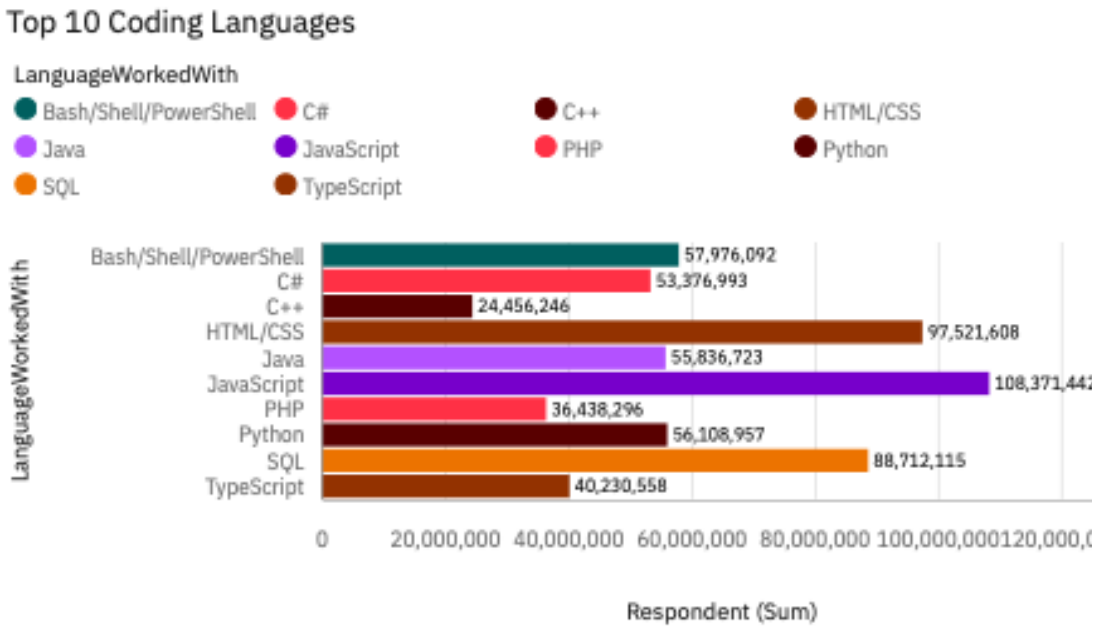
METHODOLOGY

- Analysis was performed on a subset of the Stack Overflow Developer Survey 2019 dataset.
- The survey was filled out by tech professionals.
  - This data was then normalized for analysis.
  - Many fields could optionally be left blank.
  - The original data set contains around 90,000 entries.
- Some secondary analysis was done on using the Github Jobs API to find job openings and salaries.

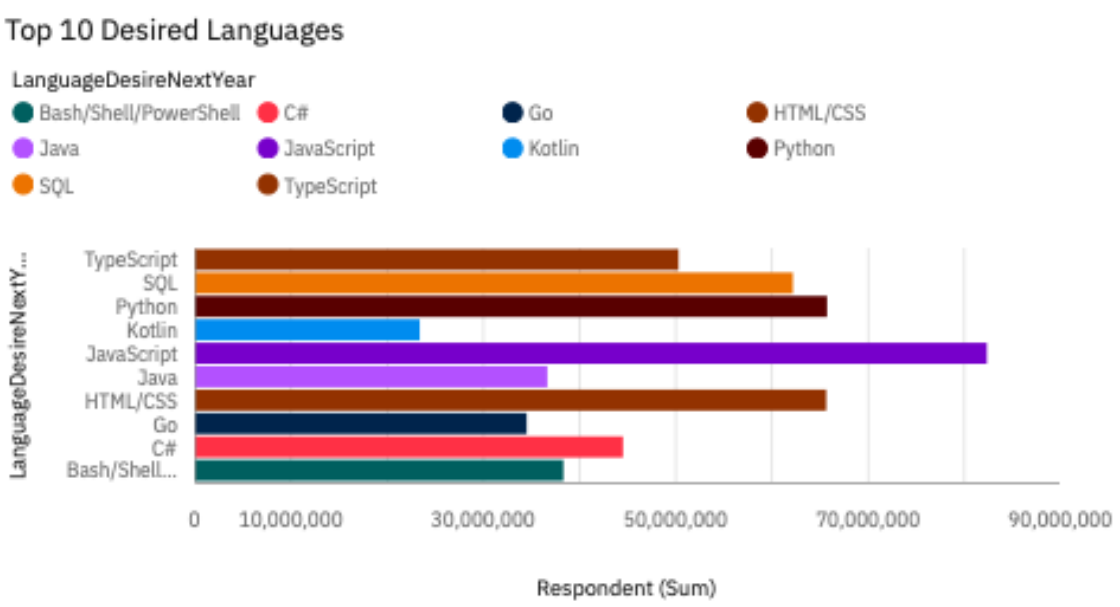
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

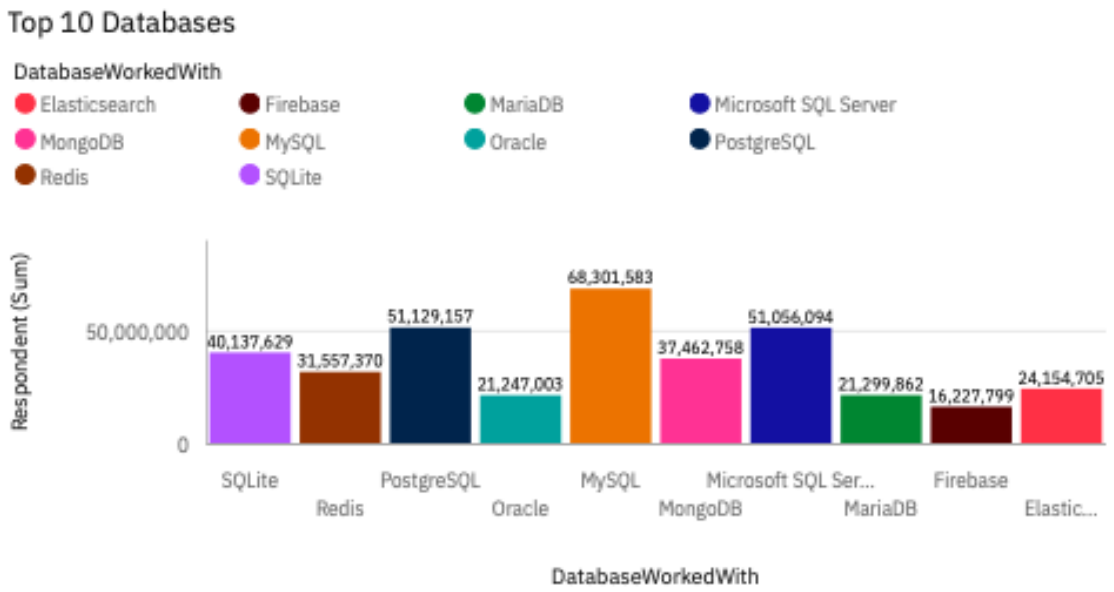
- Javascrip is currently the number one language, and the most desired language.
- Go and Kotlin are not currently popular languages, but many programmers are interested in learning them.
- C++ and PHP are currently well known, but there is little desire to learn them next year.

Implications

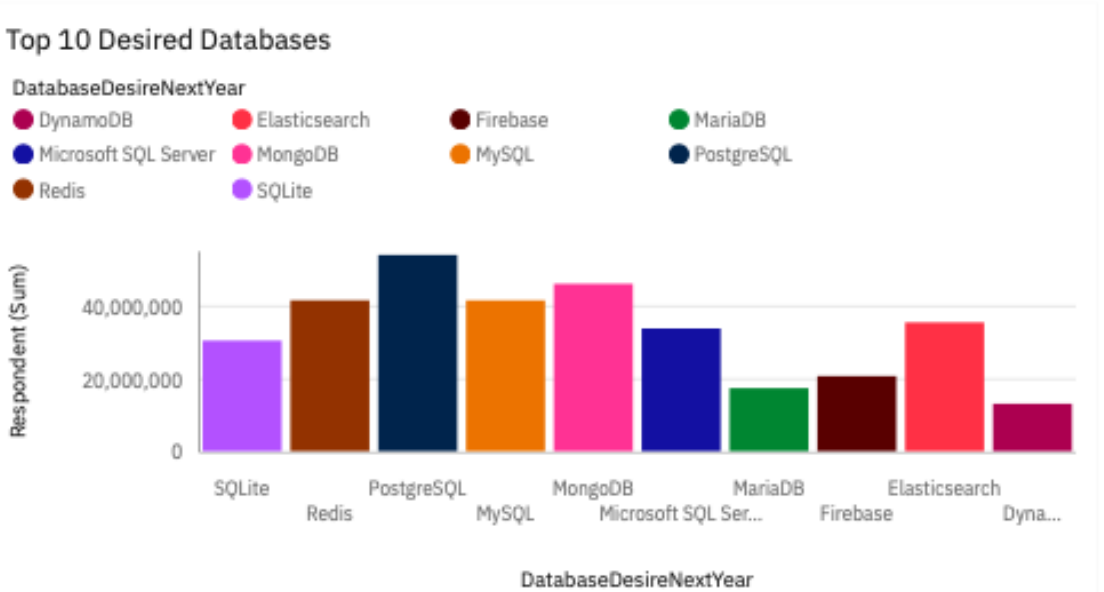
- Go and Kotlin are new and interesting languages.
- Javascript is the most important coding language.
- C++ and PHP are slowly becoming obsolete.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Many users desire to learn PostgreSQL next year.
- Oracle is not a database many desire to learn, but is a popular database now.
- DynamoDB is among the Top 10 databases desired next year, but is not well known now.

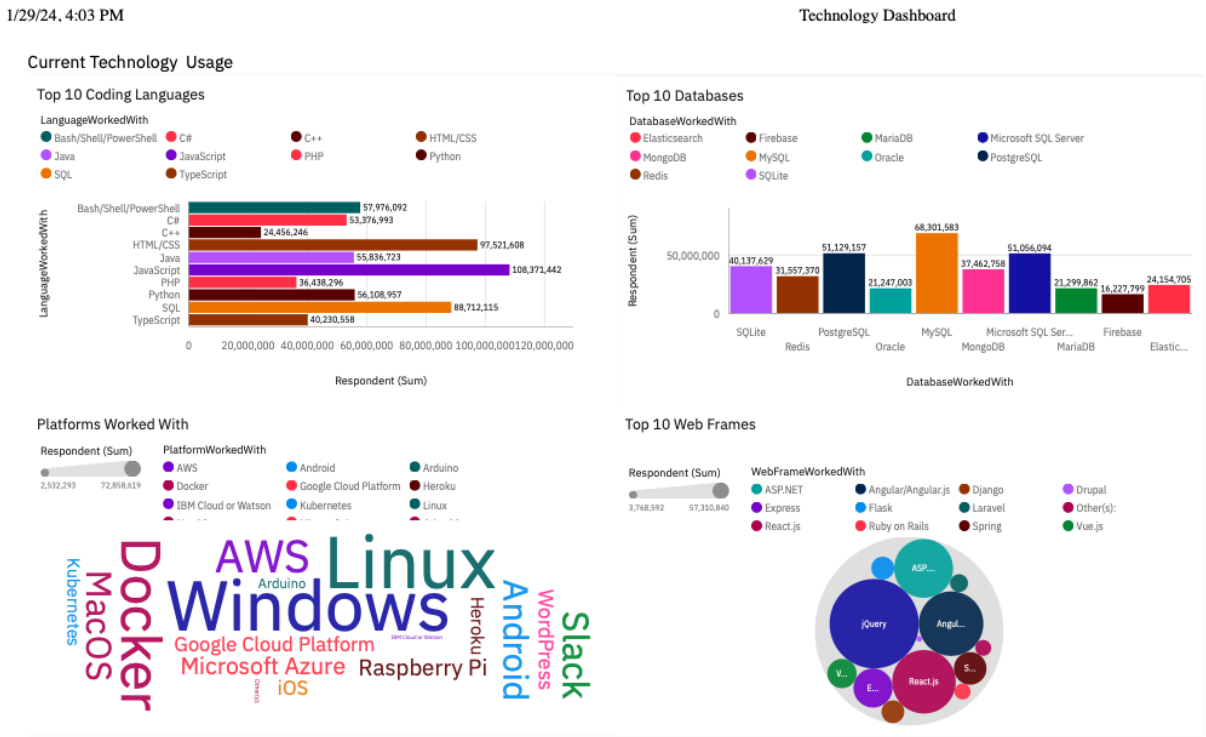
Implications

- While Oracle is currently commonly used, it is slowly being phased out.
- DynamoDB is a new database that is quickly catching on.
- PostgreSQL is the most desired database for next year.

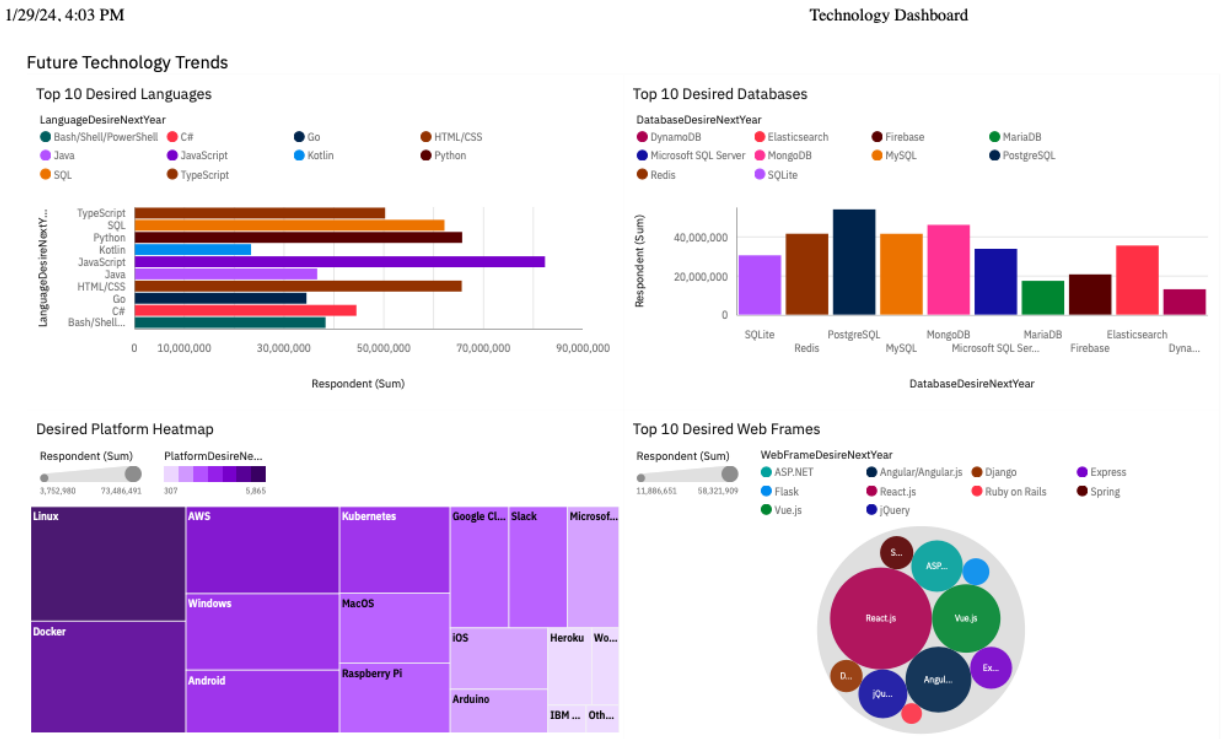
DASHBOARD

Cognos Dashboard on Github

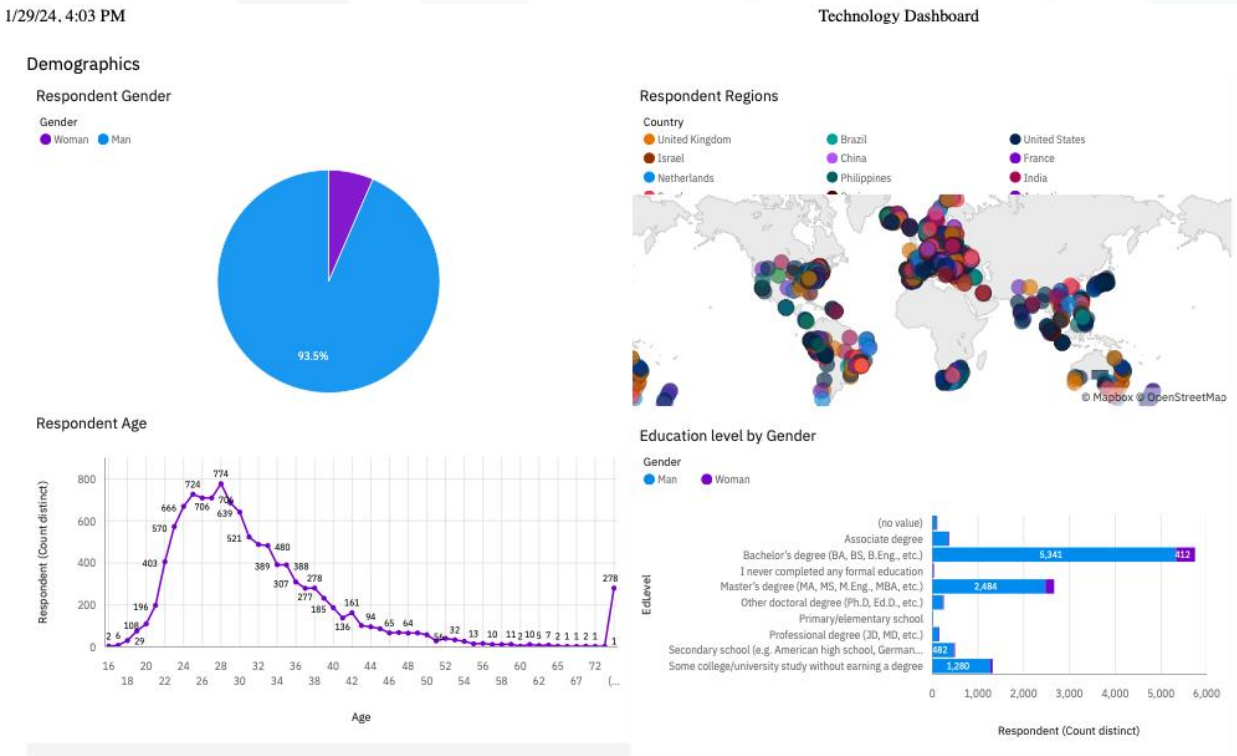
DASHBOARD TAB 1



DASHBOARD TAB 2



DASHBOARD TAB 3



DISCUSSION

- We can see a fairly even breakdown in demographics, but the data set was made up mostly of men.
- While the data is compelling, many of the surveyed left fields blank, and we therefore cannot draw any definite conclusions from the data set.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Programmers tend to be highly educated young men.
- Javascript is the most influential coding language, being highly known and highly desired.
- Several new technologies are entering the tech space and are highly desired skills.

Implications

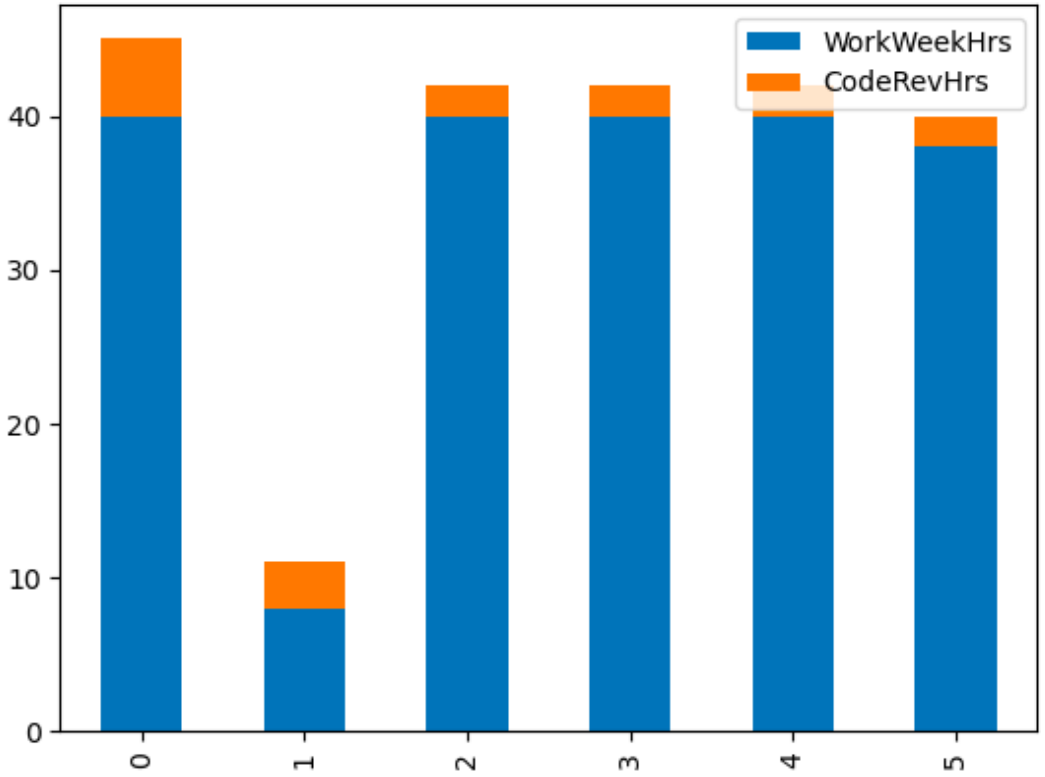
- Encouraging women to enter the sector would drastically increase the number of qualified programmers in the work force.
- Some Tech skills are always highly desired.
- Tech Skills need to be continually developed and supplemented

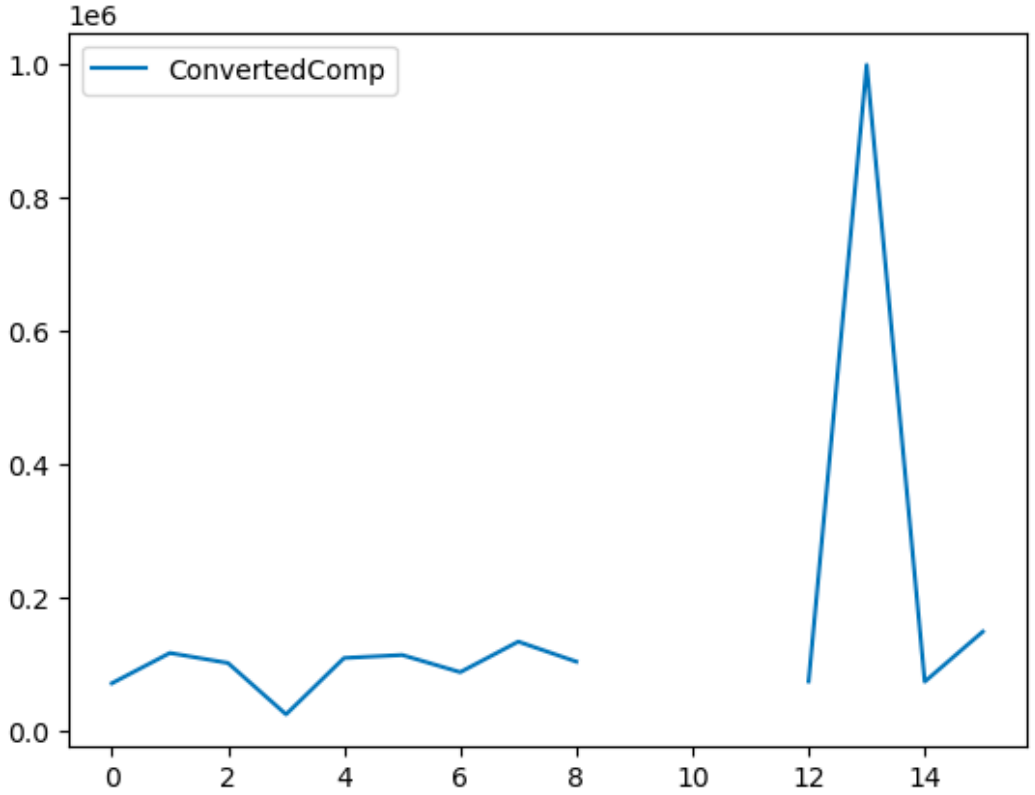
CONCLUSION

- The world of tech is constantly changing, and programmers need to be open to learning new skills.
- At the same time, there are many skills which can be considered core skills in tech, such as Javascript and postgreSQL.
- DynamoDB, React.js, Go and Kotlin are some of the hottest up and coming technologies.
- Women should be encouraged to pursue tech as a career in order to expand the pool of qualified tech professionals.

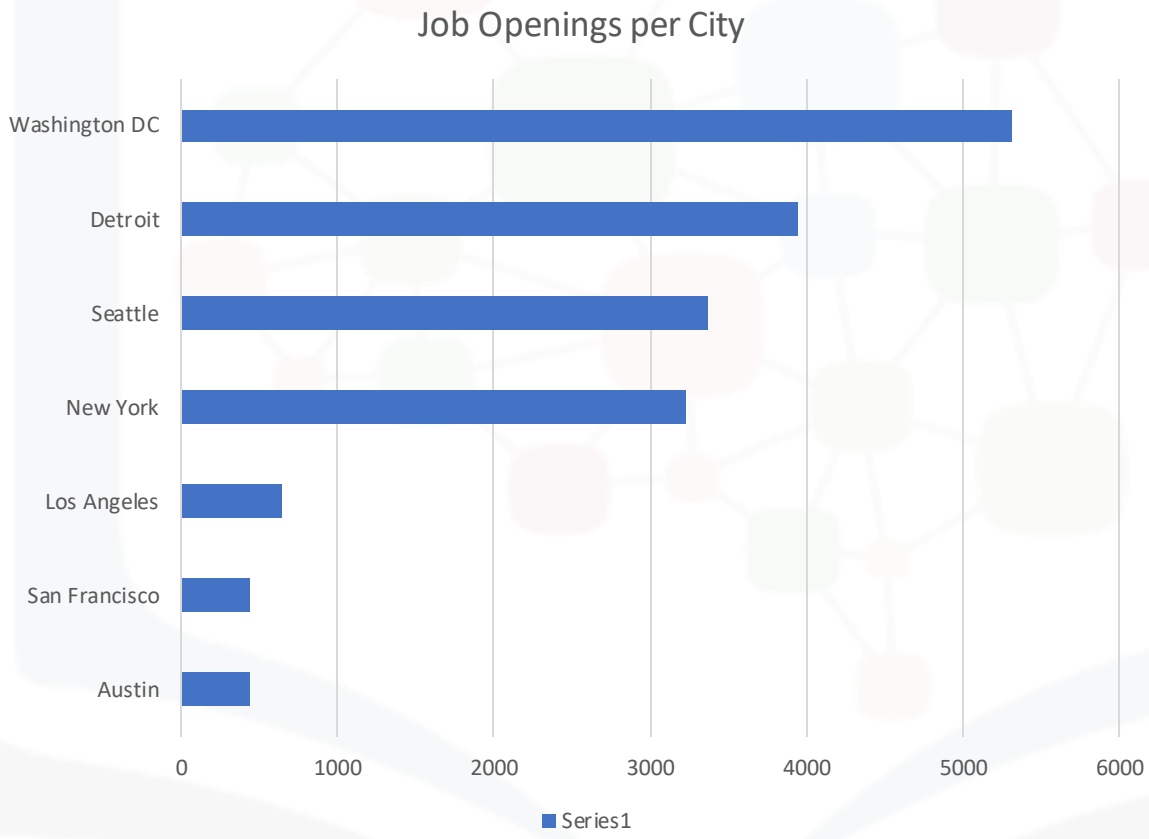
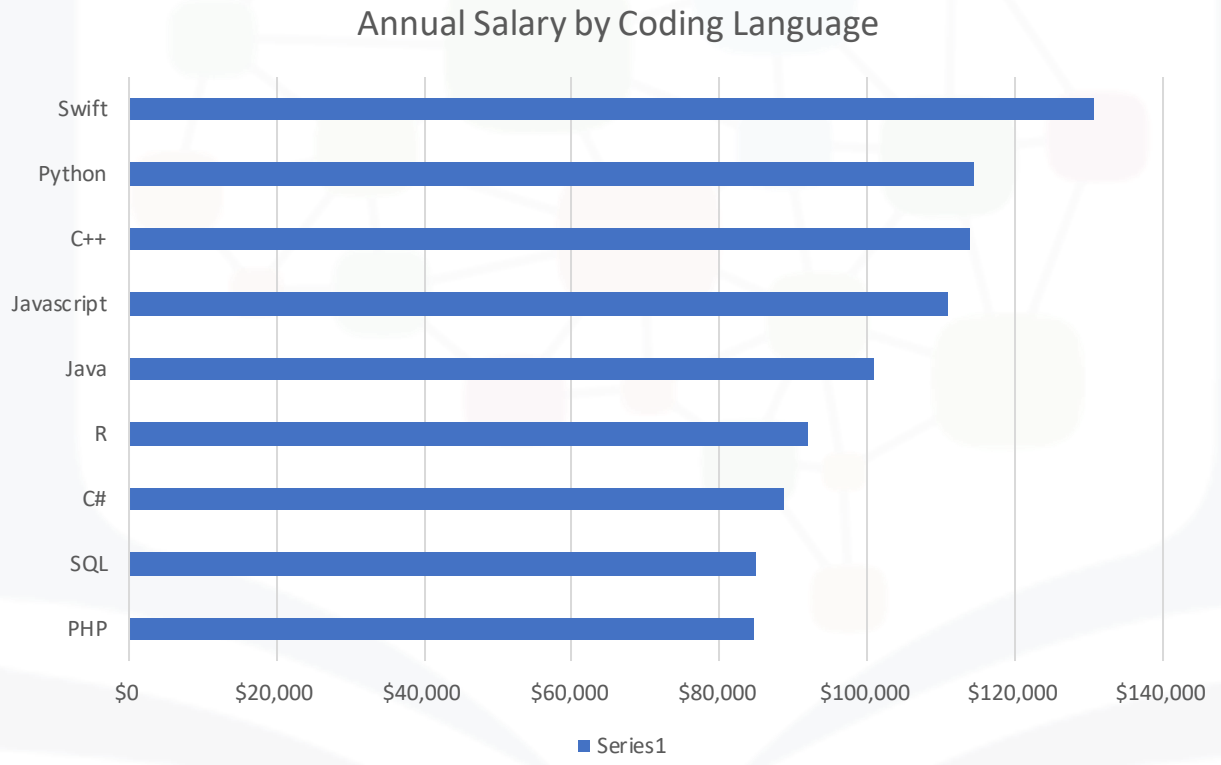
APPENDIX

Compensation as a function of Age





JOB POSTINGS



POPULAR LANGUAGES