



Analysis of Tech Trends

OUTLINE



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EXECUTIVE SUMMARY



- The analysis was done a subset of the Stack Overflow Developer Survey 2019 dataset
- Many technologies 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



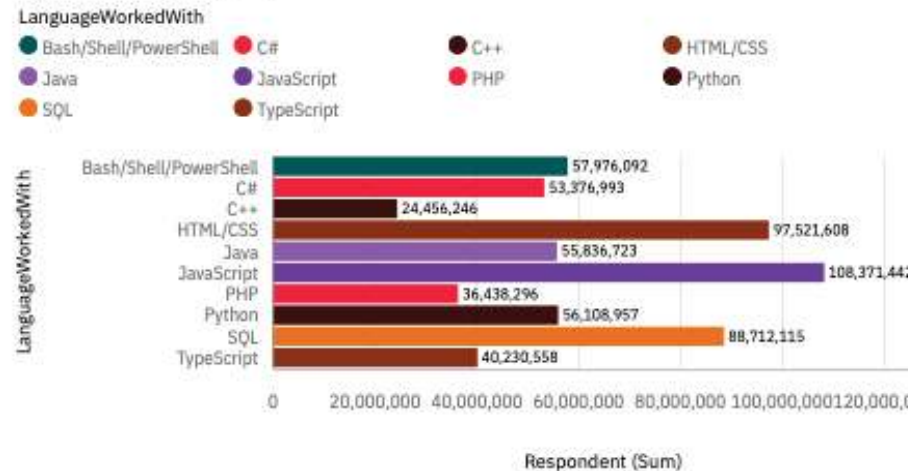
IBM Developer

SKILLS NETWORK 

PROGRAMMING LANGUAGE TRENDS

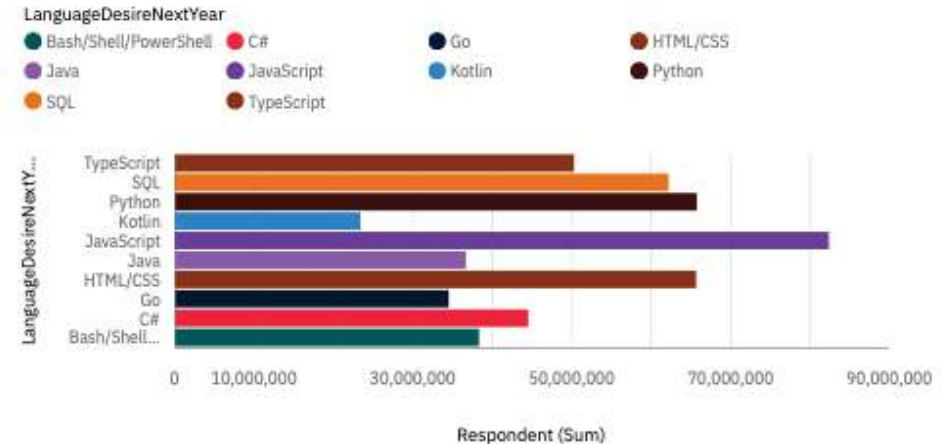
Current Year

Top 10 Coding Languages



Next Year

Top 10 Desired Languages



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Javascript 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

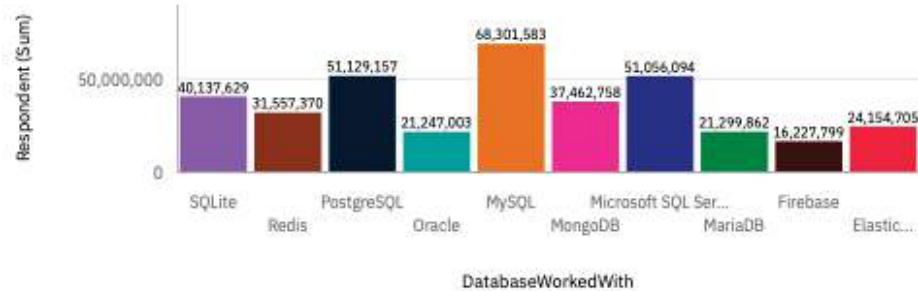
- Go and Kotlin are new and interesting languages.
- Javascript is the most important coding language.
- C++ and PHP are slowly becoming obsolete.

DATABASE TRENDS

Current Year

Top 10 Databases

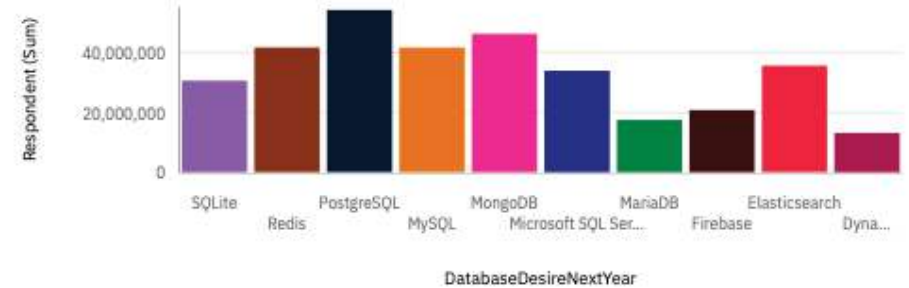
DatabaseWorkedWith



Next Year

Top 10 Desired Databases

DatabaseDesireNextYear



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](#)

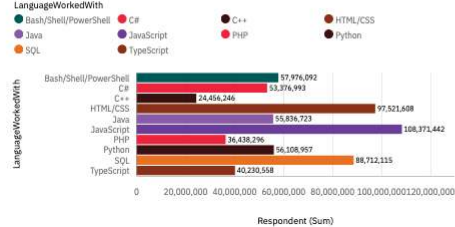
DASHBOARD TAB 1

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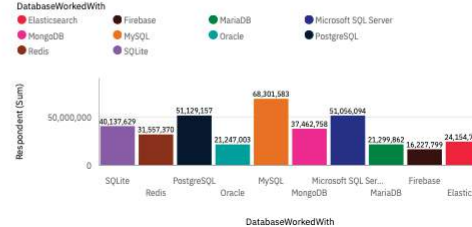
Technology Dashboard

Current Technology Usage

Top 10 Coding Languages



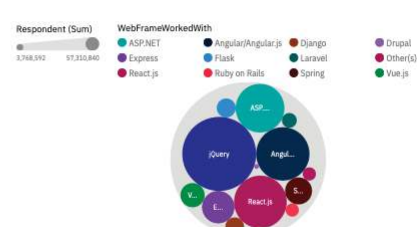
Top 10 Databases



Platforms Worked With



Top 10 Web Frames



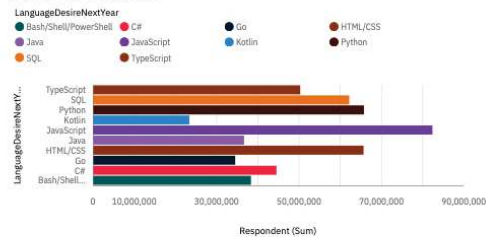
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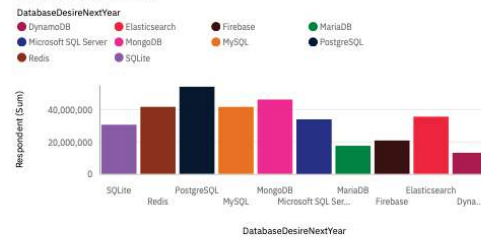
Technology Dashboard

Future Technology Trends

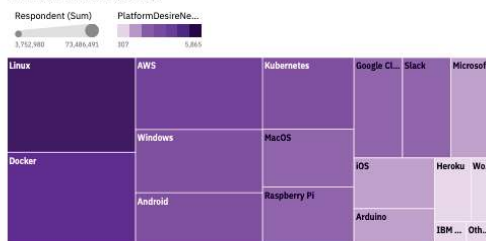
Top 10 Desired Languages



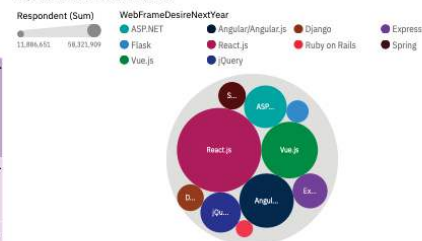
Top 10 Desired Databases



Desired Platform Heatmap



Top 10 Desired Web Frames



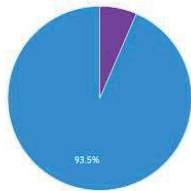
DASHBOARD TAB 3

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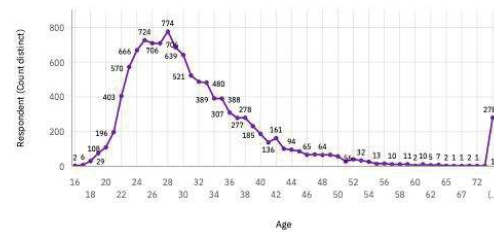
Demographics

Respondent Gender

Gender:
Woman Man

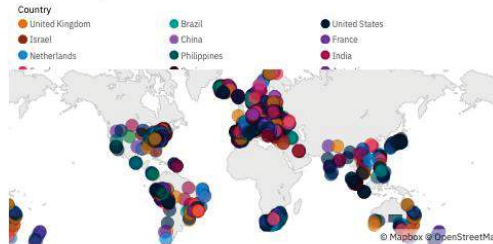


Respondent Age

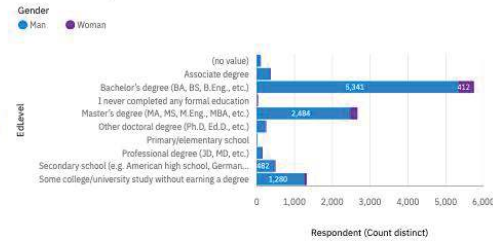


Technology Dashboard

Respondent Regions



Education level by Gender



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

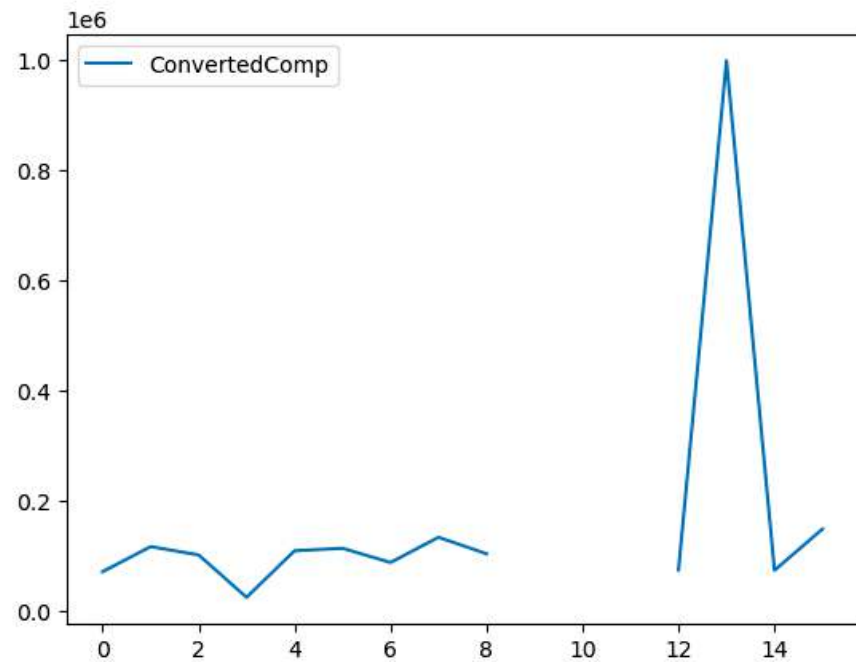
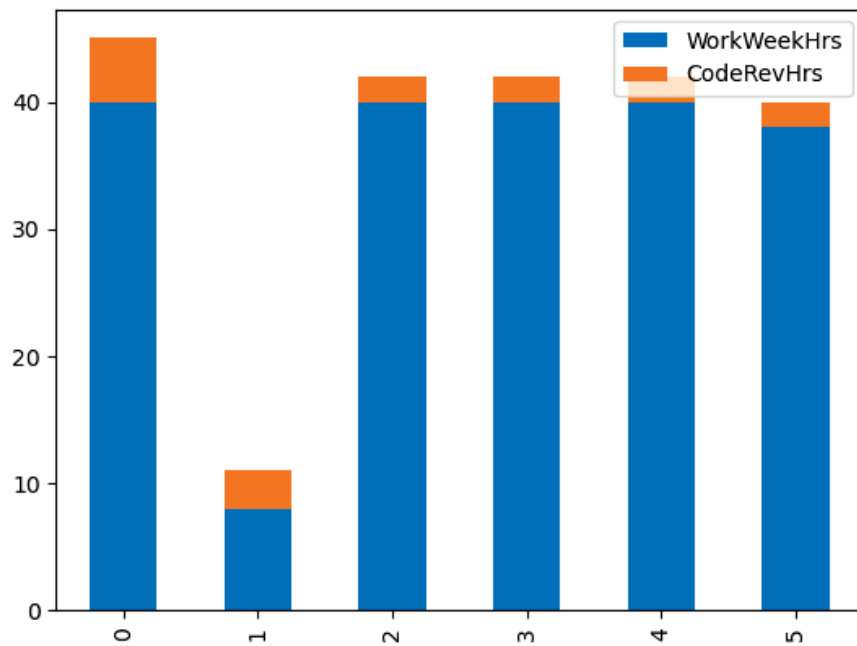
CONCLUSION



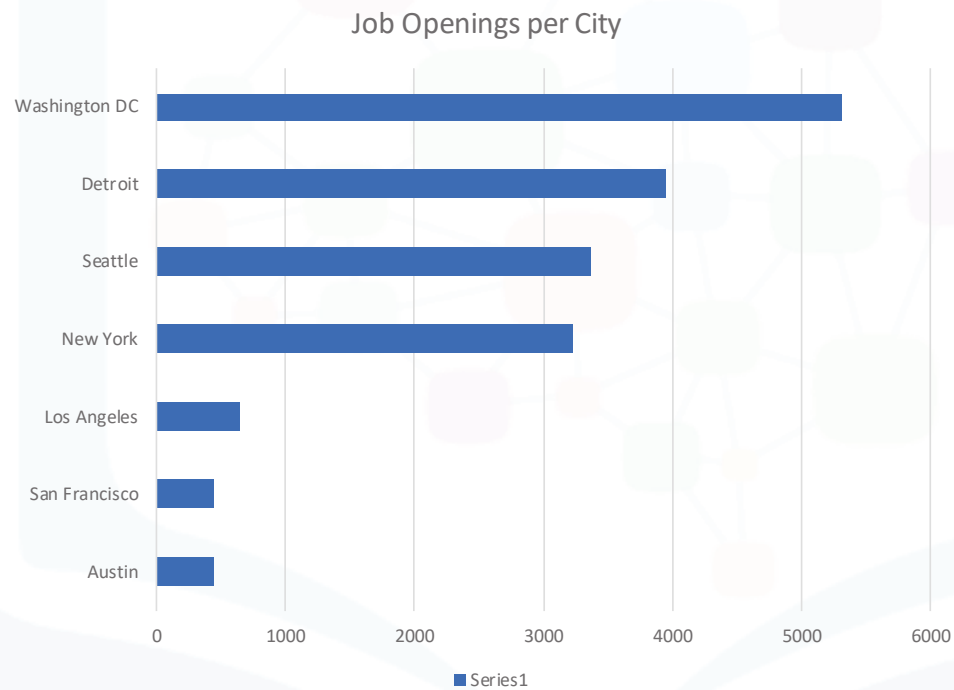
- The world of tech is constantly changing, and programmers need to be open to learning new skills.
- At the same time, there are many skills which can be considered core skills in tech, such as Javascript and postgresSQL.
- DynamoDB, React.js, Go and Kotlin are some of the hottest up and coming technologies.
- 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

