



Stack Overflow Developer Survey 2019

(Capstone Project)

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OUTLINE



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EXECUTIVE SUMMARY



- Java-Script, HTML, SQL, Bash and Python were the most in demand languages this year.
- Next year Python will gain more popularity and Type-Script will make it place in top 5 most demanding languages.
- MySQL, Microsoft SQL Server, PostgreSQL, SQLite and MongoDB were among the top 5 databases.
- In future PostgreSQL and MongoDB will overcome MySQL database.

INTRODUCTION



- This report is based on Stack Overflow developer survey of year 2019 which describe popular trends in technologies all over the world.
- We will analyze these trends and find the answer to the following questions:
 - Current & future trends in Programming Languages?
 - Current & future trends in Databases?
 - Current & future trends in Platform usage?
 - Current & future trends in Web frameworks?

METHODOLOGY



- Data Sources used for analysis:
 - Stack overflow developer survey 2019
 - Job Posting Data using Git-hub API
 - Popular Languages Data using Web Scraping.
- Data Wrangling & Exploratory Data Analysis:
 - By using Python
- Data Visualization & Dashboarding:
 - By using IBM Cognos Analytics

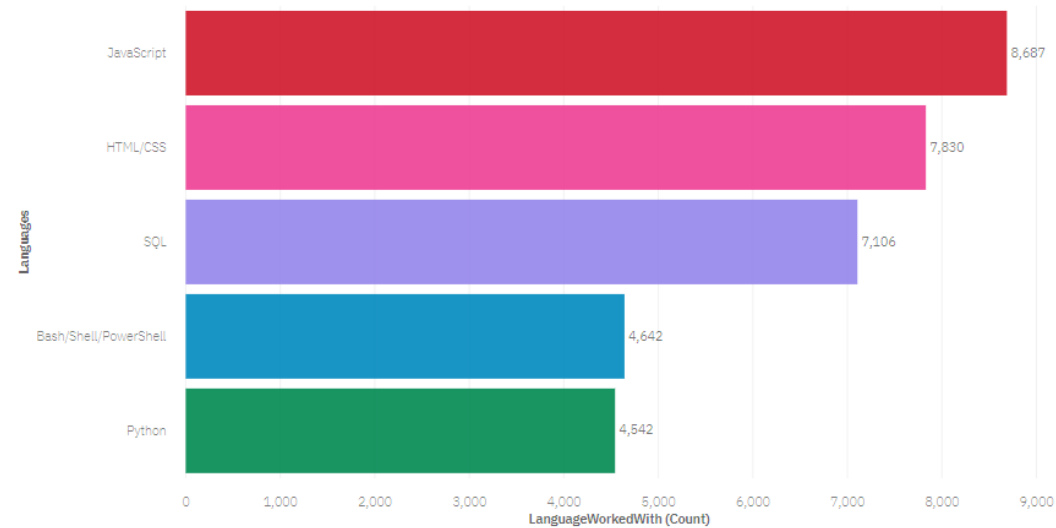
RESULTS



PROGRAMMING LANGUAGE TRENDS

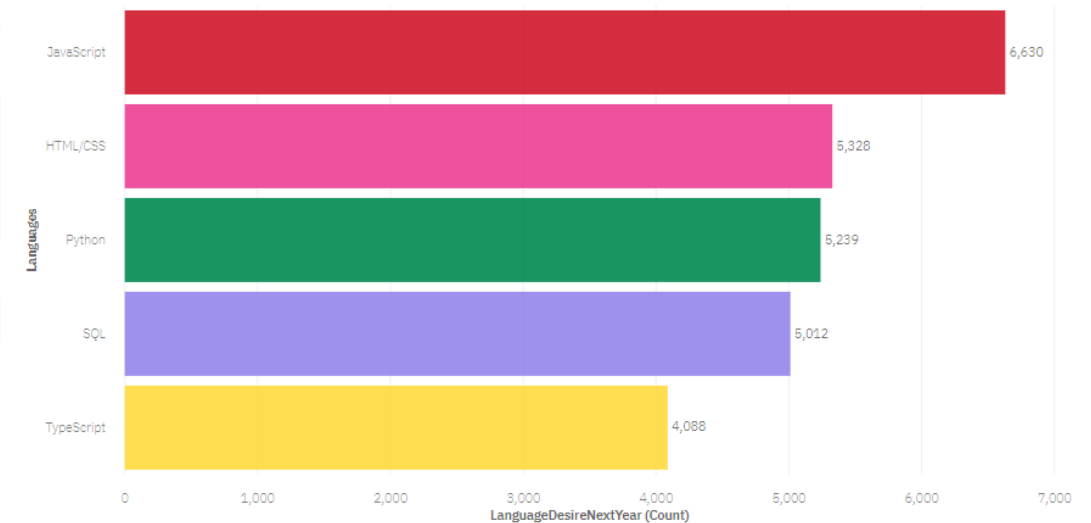
Current Year

Top 5 Languages Worked With



Next Year

Top 5 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Java-script is the most in demand & will remain as the highest in demand programming language next year.
- HTML, SQL, Bash & Python are the most demanding languages after Java-Script for this year.

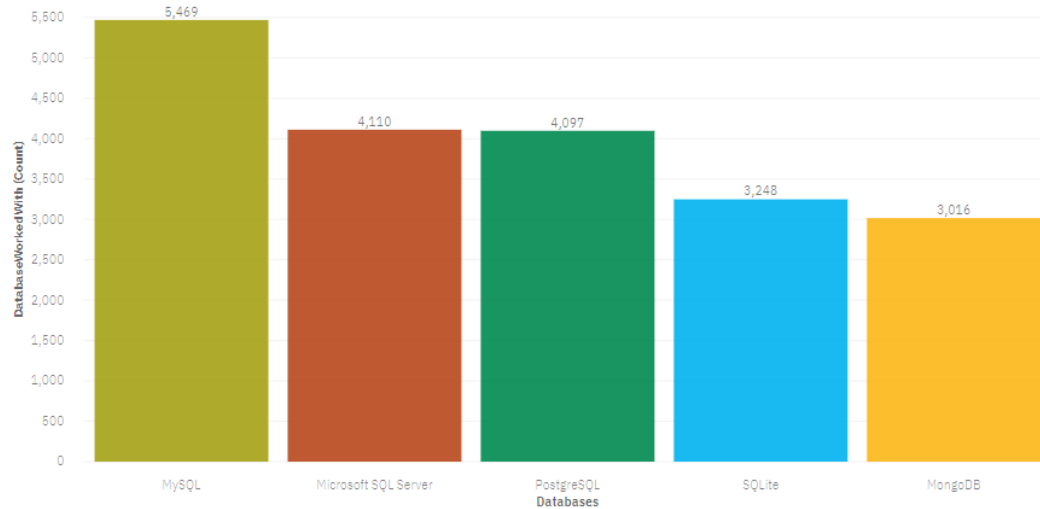
Implications

- In future Python will gain more popularity
- SQL will decrease in demand next year
- Type-Script will over the Bash scripting language I future.

DATABASE TRENDS

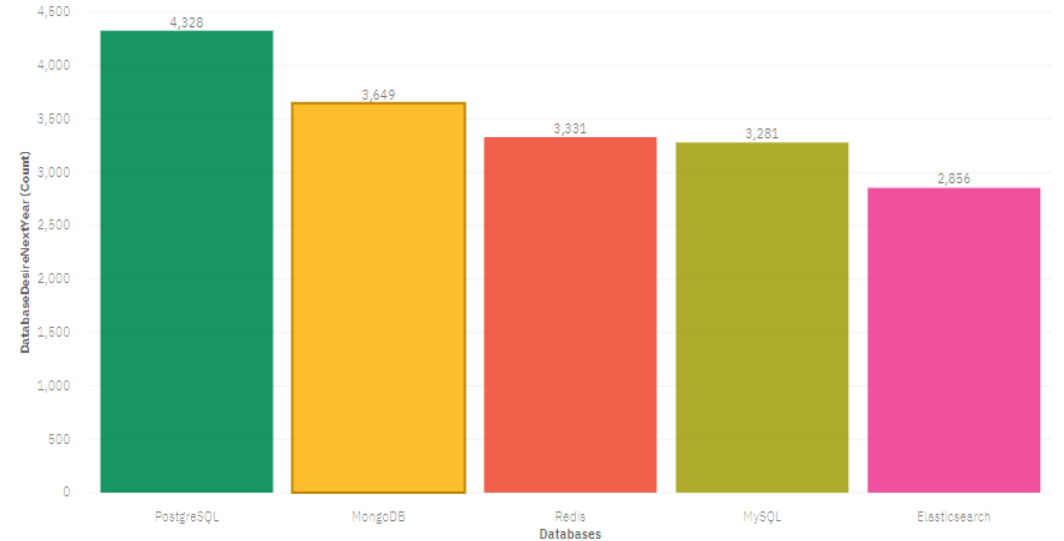
Current Year

Top 5 Database Worked With



Next Year

Top 5 Database Desire Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- This year MySQL gain the highest popularity.
- Microsoft SQL Server & PostgreSQL were almost having similar demand this year.
- SQLite and MongoDB were also able to make it in top 5 this year.

Implications

- In future PostgreSQL & MongoDB will gain more popularity.
- MySQL will decrease in demand.
- Redis & Elasticsearch will overcome Microsoft SQL Server and SQLite in future.

DASHBOARD



[IBM Cognos Dashboard Link \(Stack Overflow Survey 2019\)](#)

DASHBOARD TAB 1

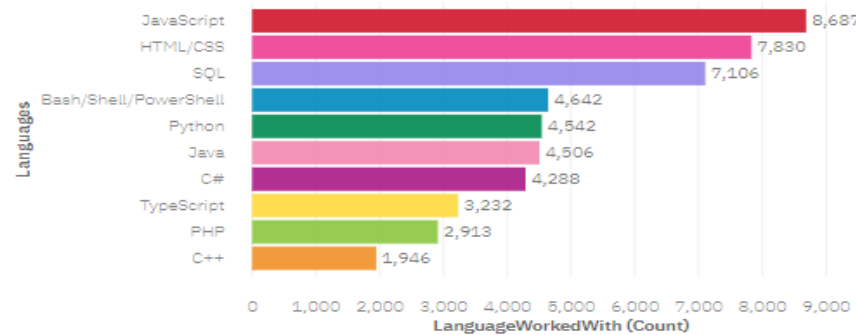
Current Technology Usage

Future Technology Trend

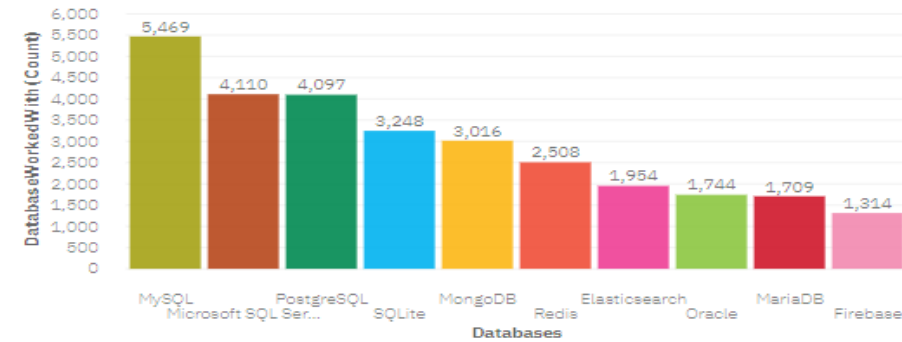
Demographics



Top 10 Languages Worked With



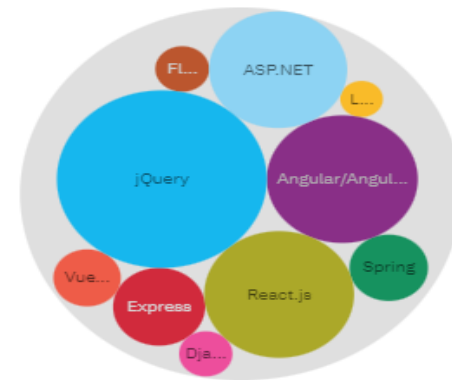
Top 10 Database Worked With



Platform Worked With



Top 10 Web-Frame Worked With



DASHBOARD TAB 2

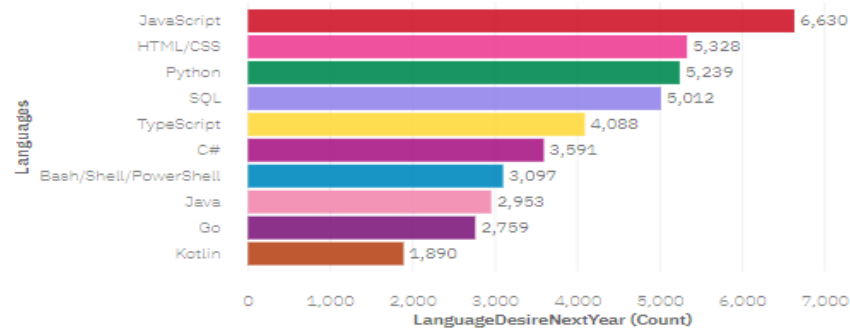
Current Technology Usage

Future Technology Trend

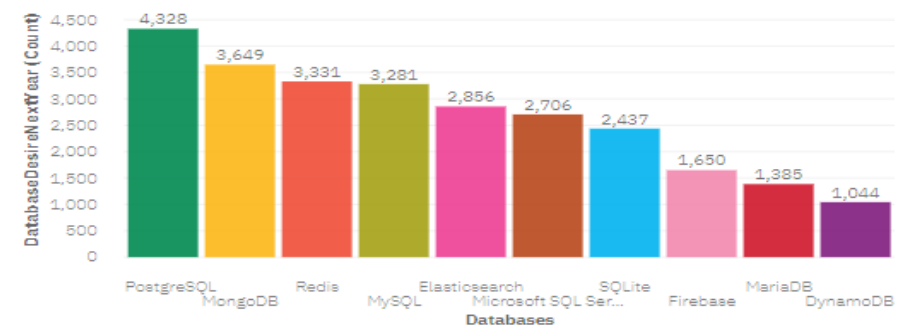
Demographics



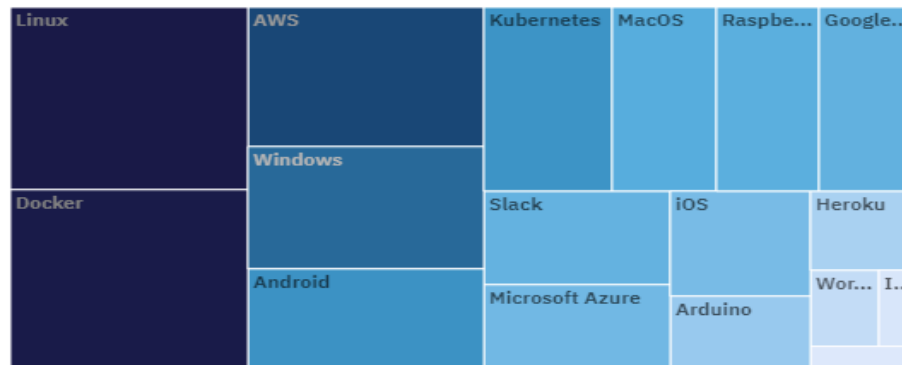
Top 10 Language Desire Next Year



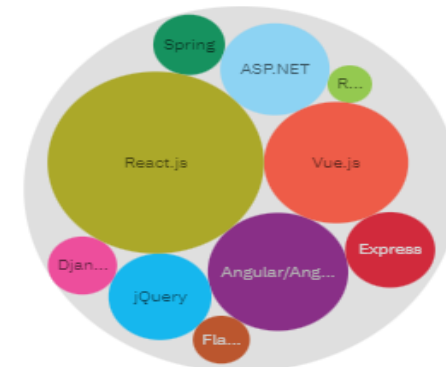
Top 10 Database Desire Next Year



Platform Desire Next Year



Top 10 Web-Frame Desire Next Year



DASHBOARD TAB 3

Current Technology Usage

Future Technology Trend

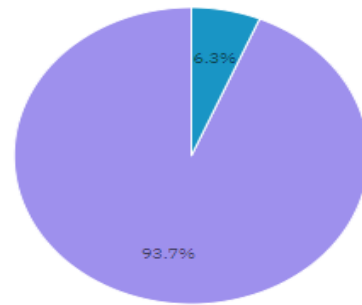
Demographics



Respondent classified by Gender

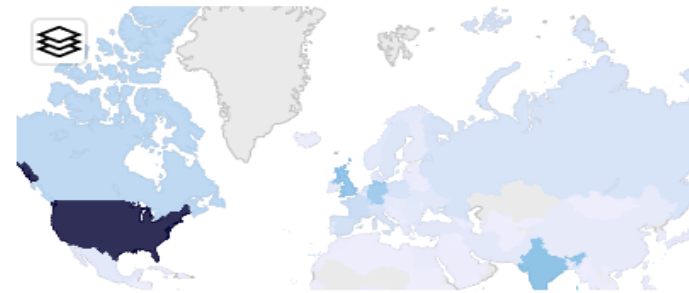
Gender

● Woman ● Man

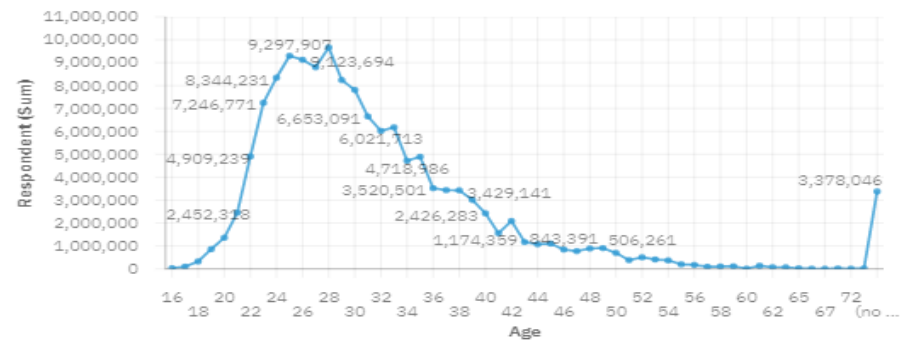


Respondent Count for Countries

Country (Count)



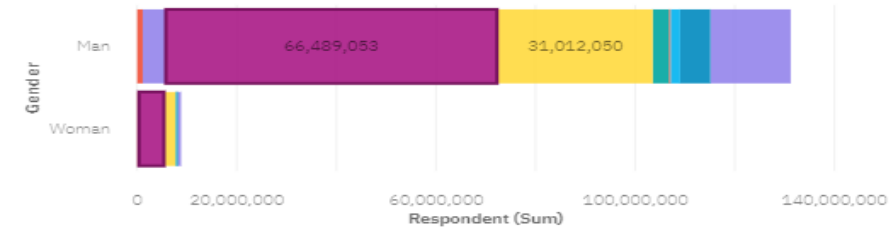
Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level

EdLevel

● (no value) ● Associate degree
● Bachelor's degree (BA, BS, B.E... ● I never completed any formal ...
● Master's degree (MA, MS, M.E... ● Other doctoral degree (Ph.D, E...



DISCUSSION

- With the passage of time technology evolve and with that businesses must adapt these evolving technology and thus demands for these technology changed from time to time.

OVERALL FINDINGS & IMPLICATIONS

Findings

- IT is ever emerging field and require new stack of technology every year or so
- Java-Script and Web Development technology are in great demand.
- MySQL had the highest demand this year.

Implications

- Web development tech stack will remain the highest in demand in future.
- In future database like PostgreSQL and MongoDB will over come MySQL.

CONCLUSION

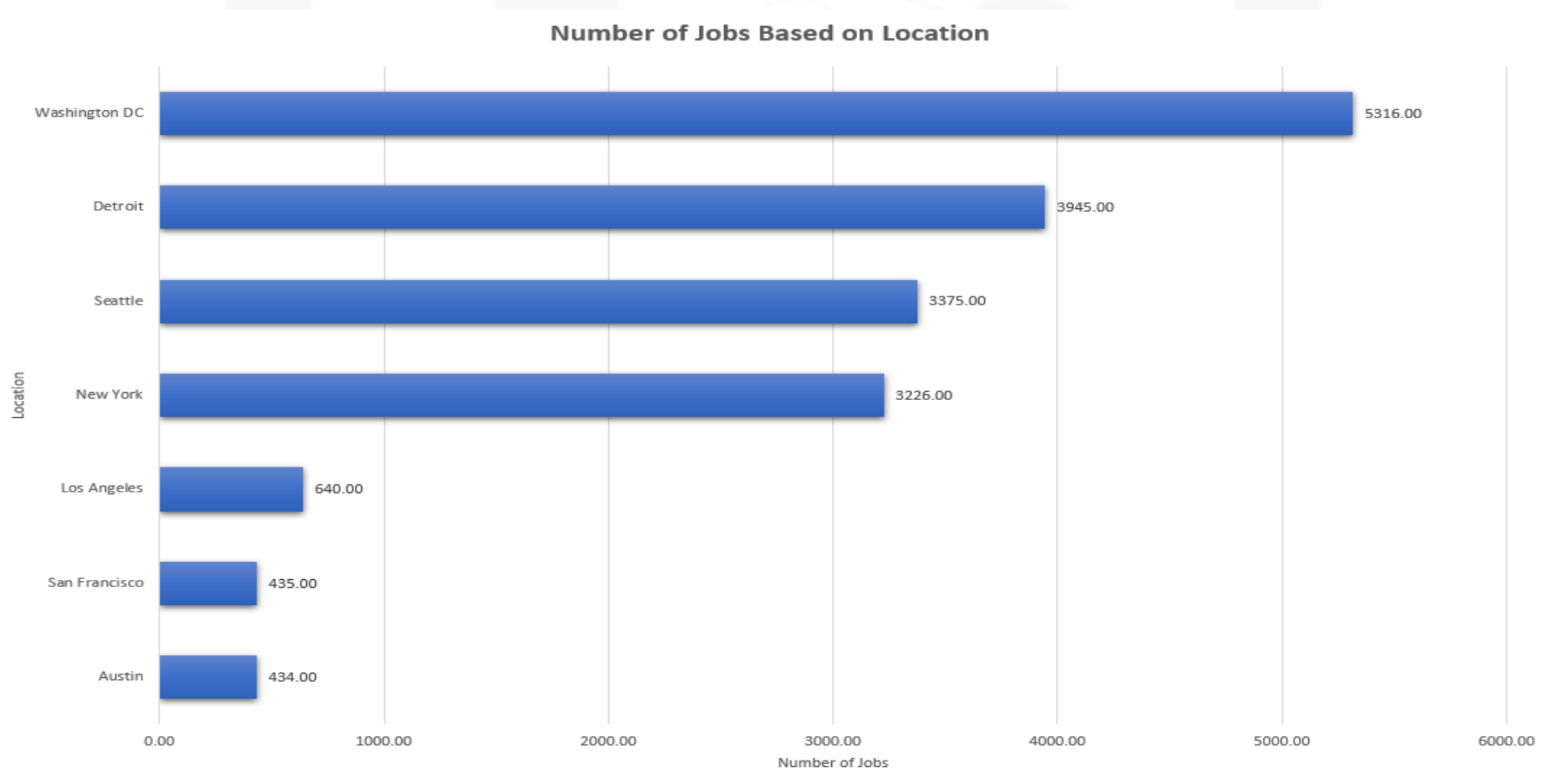


- Every year new technologies emerge, and businesses adapt these technologies to stay relevant and thus demand for these technologies change over time.
- This year Java-Script was one of the most demanding language and will remain at top next year, However Type-Script will beat the Bash in demand in future.
- PostgreSQL will be the highest in demand next year.

APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

