Analysis of Stack Overflow Developer Survey in 2019

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OUTLINE

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

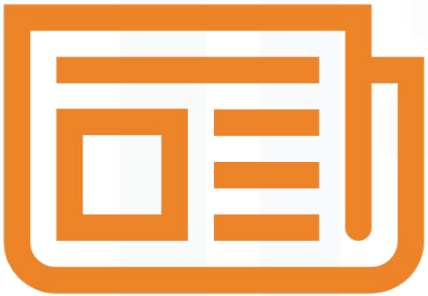
EXECUTIVE SUMMARY

- Analysis of Stack Overflow Developer Survey in 2019
- Visualize Current and Expected Trends in:
  - Programming Languages
  - Databases
  - Web Framework
  - OS Platform
- Discussion of overall findings
- Final conclusion

INTRODUCTION

- This analysis will take a look at developer current technology usage and future trend based on different demographic criteria
- Draw conclusion based on several visualization provided
- Provide insight on what the data can be used for

METHODOLOGY



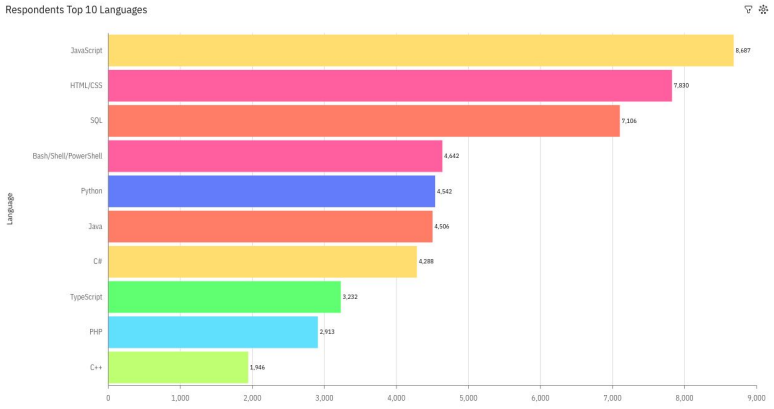
- Retrieve Data from Stack Overflow Developer Survey
- Extract and explore dataset
  - Sanitized dataset
  - Exploratory data analysis
- Data Visualization
- Dashboard creation via IBM Cognos

RESULTS

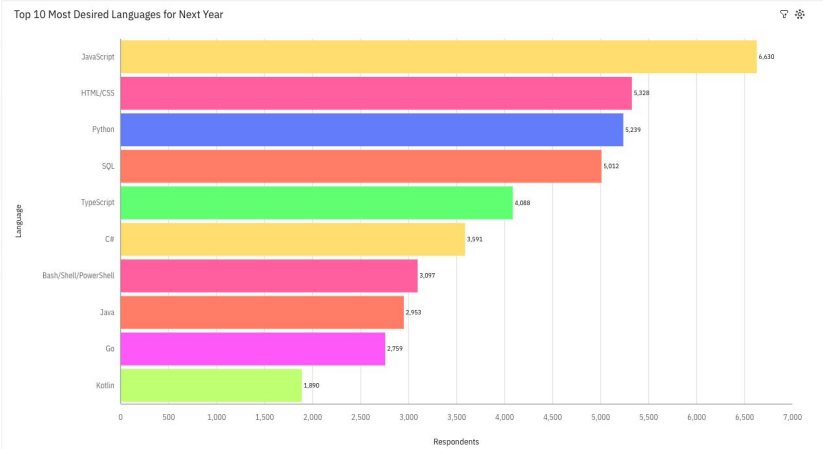
- The top language that is being utilized is Javascript
- It is expected that Javascript will continue to gain popularity
- MySQL seems to be the database most developers have worked with
- There is a growing interest in PostgreSQL and MongoDB suggesting a shift from MySQL
- Many respondents of the survey are male who has a bachelor equivalent degree

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

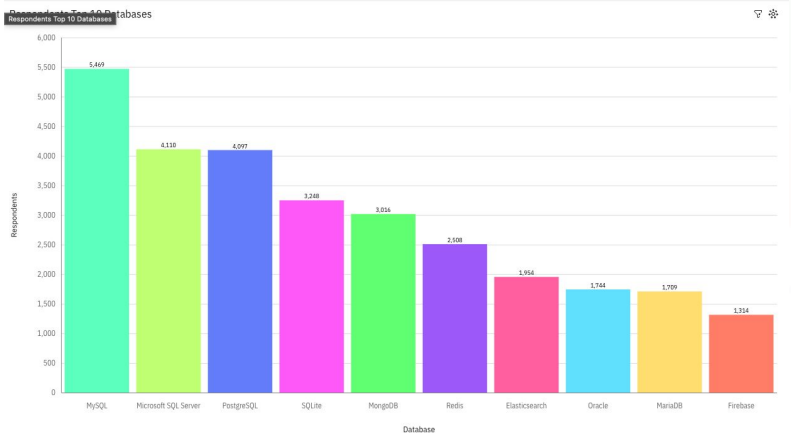
- Top Language currently use is Javascript
- Growing trend to learn Javascript in the future
- Following closely by HTML/CSS

Implications

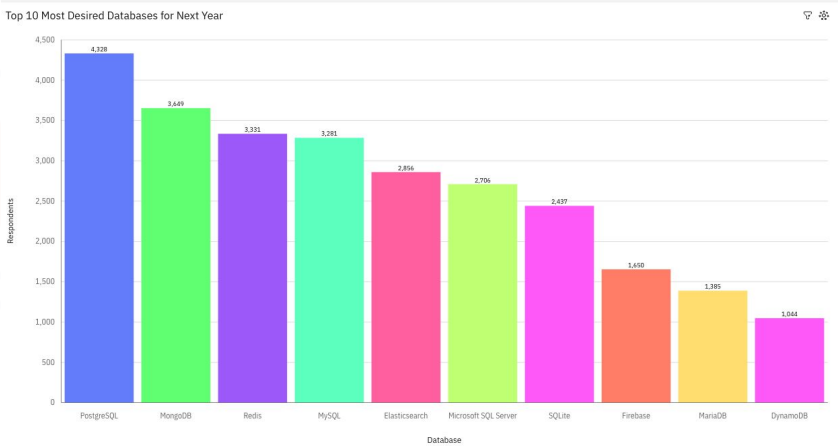
- Javascript and Web-related language and framework will continue to rise in popularity

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Current top database is MySQL
- A shift to PostgreSQL and MongoDB

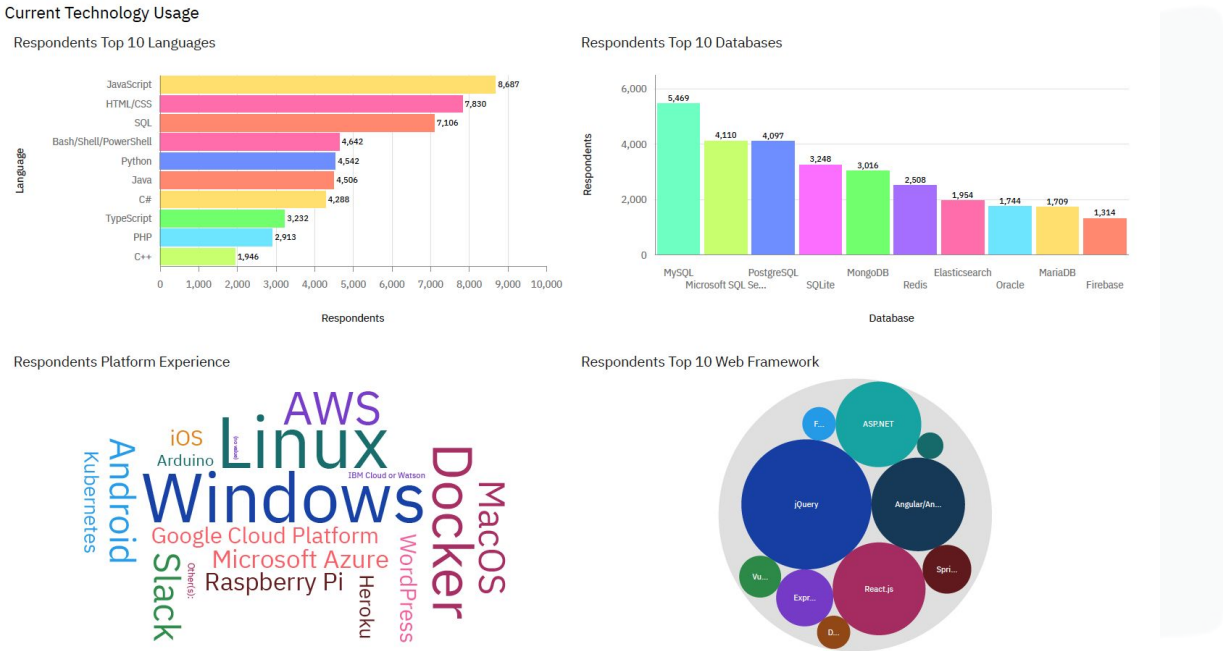
Implications

- MySQL is currently the top database utilized by developer
- With emerging technology, it seems developer may shift over to PostgreSQL and MongoDB in the future

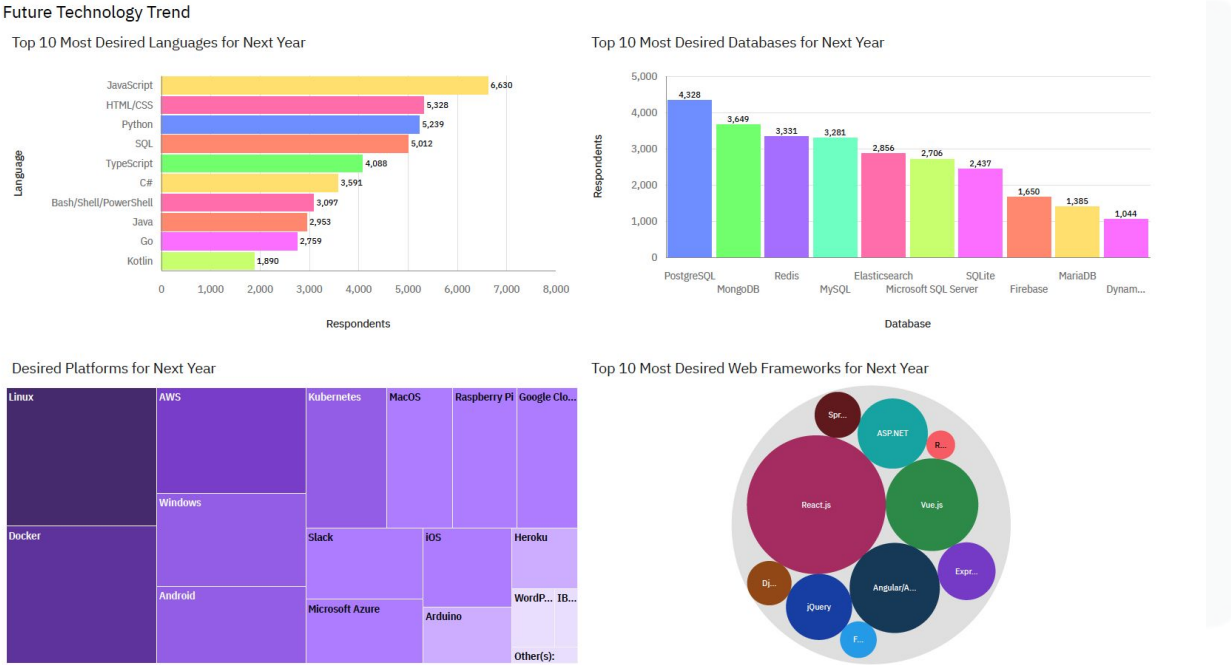
DASHBOARD

Complete Dashboard: Link

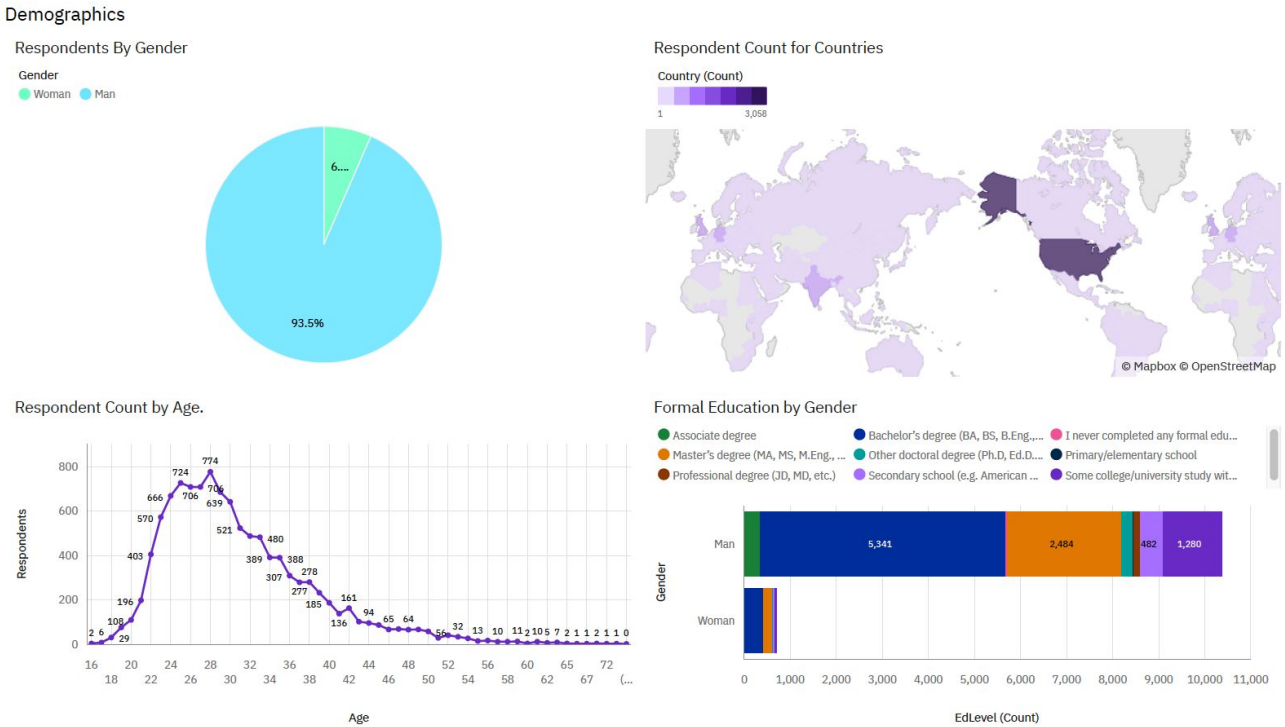
DASHBOARD: Current Technology Usage



DASHBOARD: Future Technology Trend



DASHBOARD: Demographics



DISCUSSION

- As illustrated by the dashboards, the top language being utilized is Javascript, which seems to be gain popularity.
- Although MySQL is highly utilized now, there seems to be a pivot to MongoDB and PostgreSQL

OVERALL FINDINGS & IMPLICATIONS

Findings

- Javascript is currently very popular and will increase next year
- MySQL is popular now but may be less so in the future.

Implications

- Going forward, Javascript will continue to be popular
- MySQL developers may change to PostgreSQL and MongoDB developer in the future.

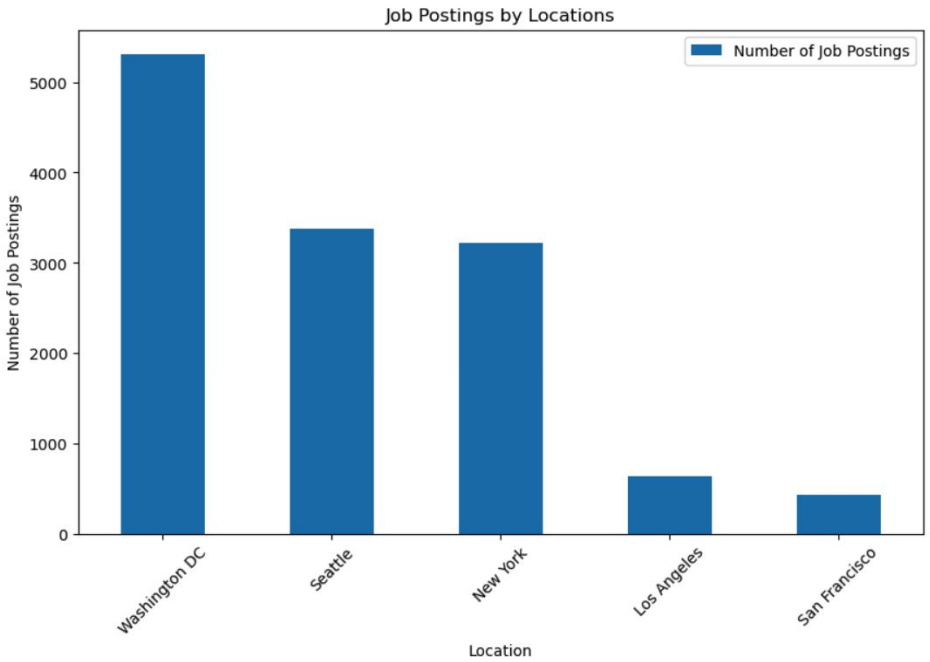
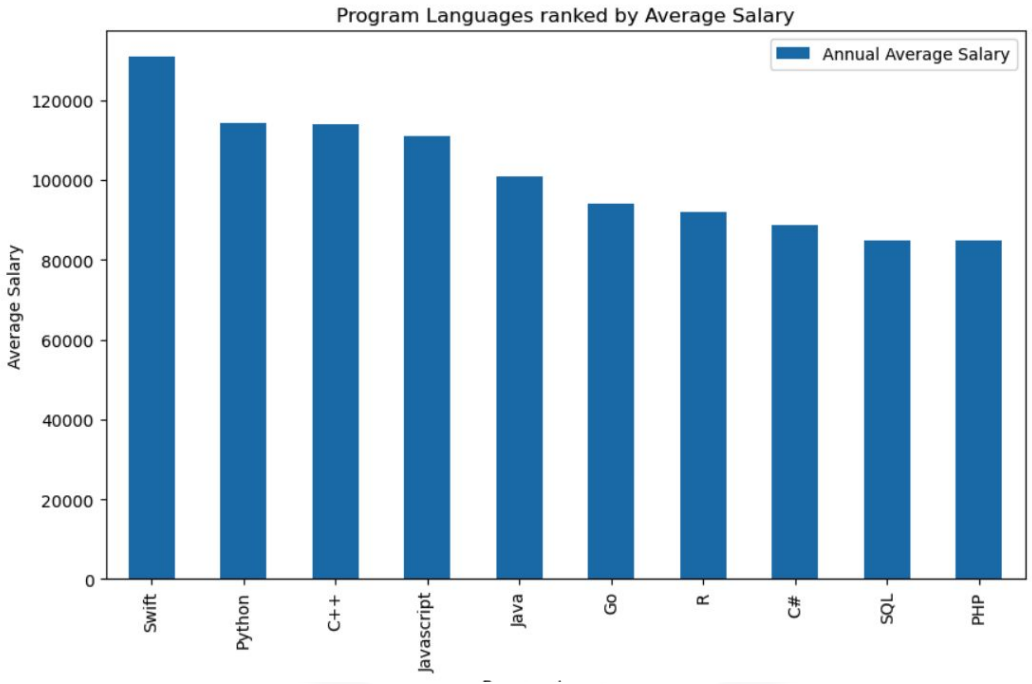
CONCLUSION

- Javascript doesn’t seem to be decreasing in popularity anytime soon
- MySQL developers may change to PostgreSQL and MongoDB as technology continue to develop

APPENDIX

- In the next few slides are charts relating job posting and program language popularity.

JOB POSTINGS



POPULAR LANGUAGES