

Analysing 2019 Stack Overflow Developer Survey Data

Euclinton FOLICHE



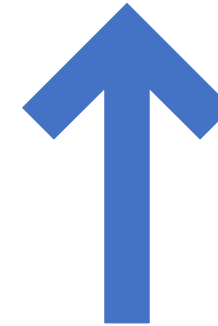
Outline

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Executive Summary

- Due to the continued embedded of technology tools in various industries, skills demand in programming languages and databases administration is exponentially growing.
- Knowledge of programming languages such as JavaScript, Python, and HTML/CSS are the most demanded for jobs in technology.



Introduction

- The technology market is valued at nearly \$30 billion by the end of the decade
- Current demand for technology skills is the highest in the past 50 years
- Businesses are seeking professionals with varied programming skills
- This presentation aims at informing the trends for technology jobs and required skills.

Methodology

- The present analysis was performing by employing data analytics methods
 - The data was mined from various sources, having <https://jobs.github.com/> as the main source of data
- The data was scraped using API
- The data was cleaned programatically using Python
- Further, exploratory data analysis was performed to identify patterns and trends in the data through visualisations.
- Lastly, 3 dashboards were developed and deployed

Results



- A growing trend of technology use in various industries is growing
- These industries include business, finance, and agriculture
- JavaScript and Python most demanded programming languages
- PostgreSQL & MongoDB trend to be the most used databases for data storage

Programming Language Trends



Current Year

- The top 5 programming languages:
 - JavaScript, HTML/CSS, SQL, Bash/PowerShell, & Python

Next Year

- Top 5 programming languages:
 - JavaScript, Python, HTML/CSS, SQL, & TypeScript

Programming Language Trends

Findings and implications

- Findings

- Python ranks 2nd among the languages respondents want to learn/use next year
- Data reveals Linux and React.js as the platforma and webFrame to learn and

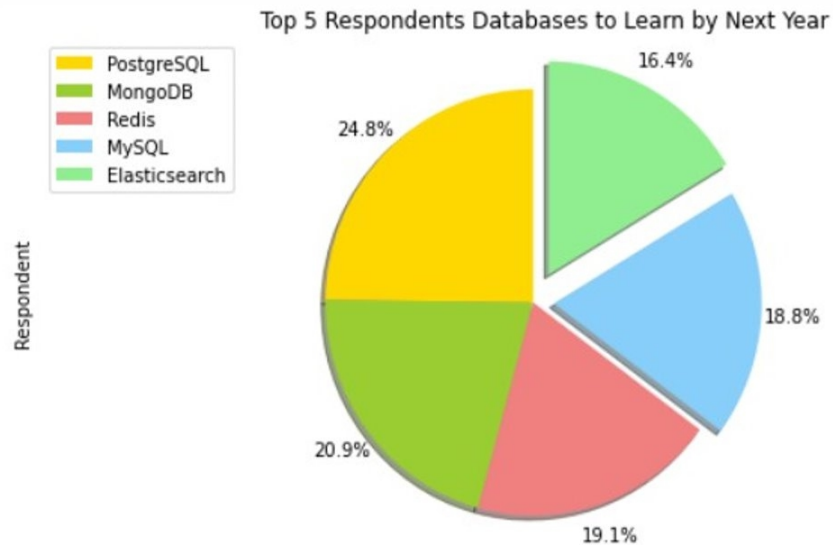
- Implication

- More people to learn programming skills
- Professional of various fields will need to acquire basic skills in programming

Database Trends

Current Year

- Top 5 current databases use:
 - MySQL, PostgreSQL, Microsoft SQL Server, SQLite, & MongoDB



Next Year

- Top 5 databases to learn next year:
 - PostgreSQL, MongoDB, Redis, MySQL, & ElasticSearch

Database Trends

Findings & Implications

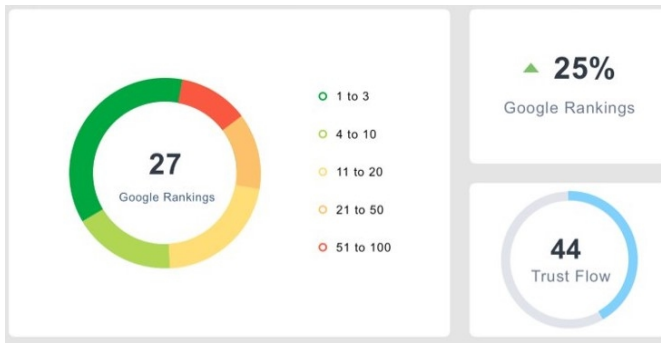
Findings

- PostgreSQL takes 1st place on the languages to learn/use next year
- Only 21 million respondents said to use Oracle DB

Implications

- More data storage will be cloud based
- Growth demand for database administration skills to grow

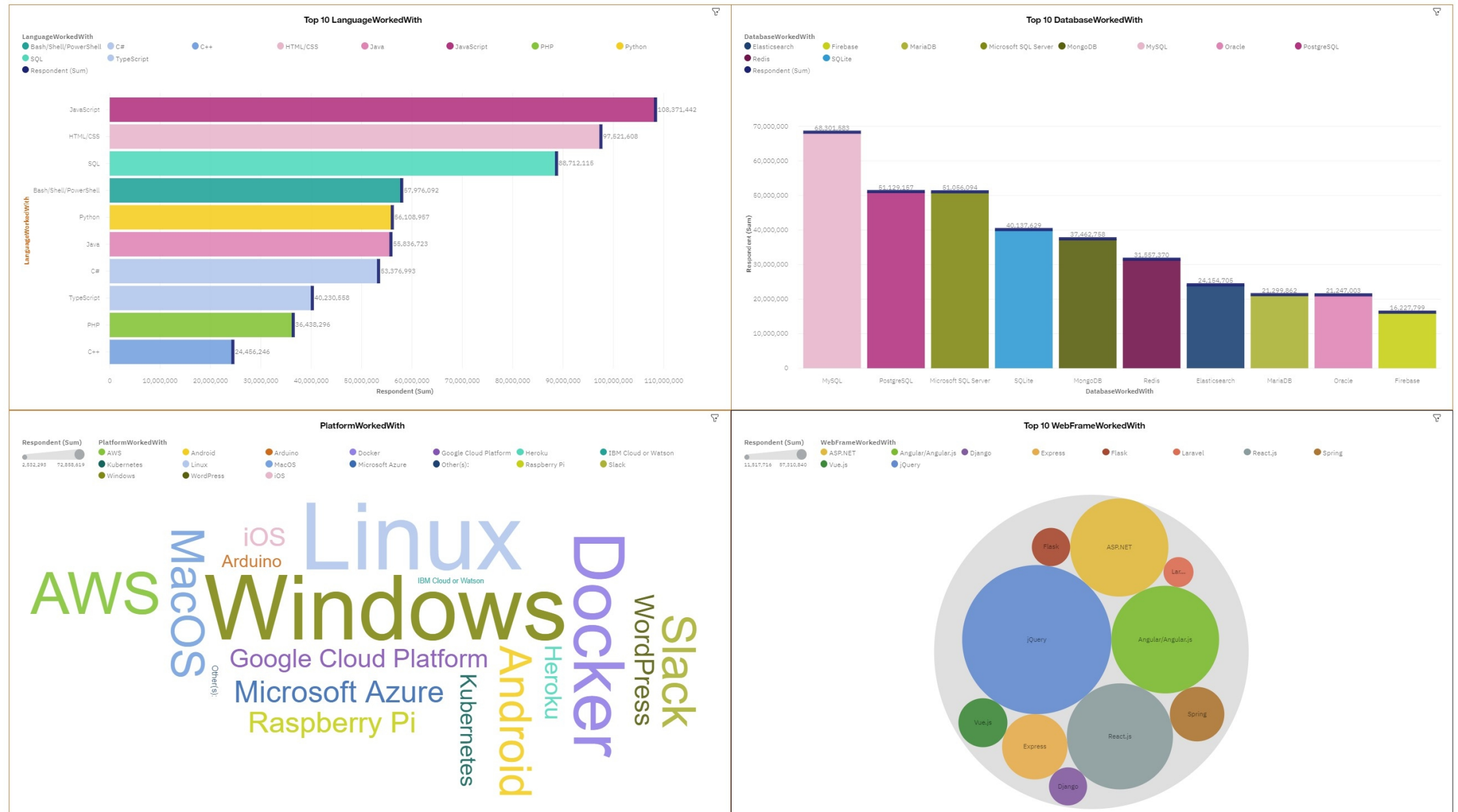
Dashboard



To see the dashboard, visit the link below

- http://bit.ly/EF_capstone_project_dashboards

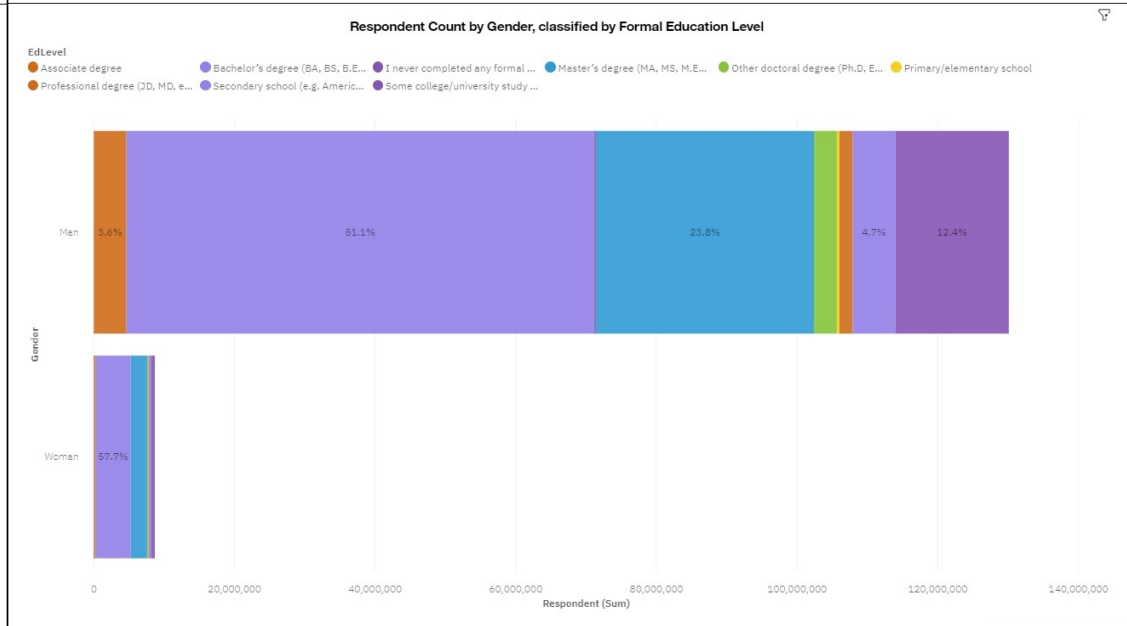
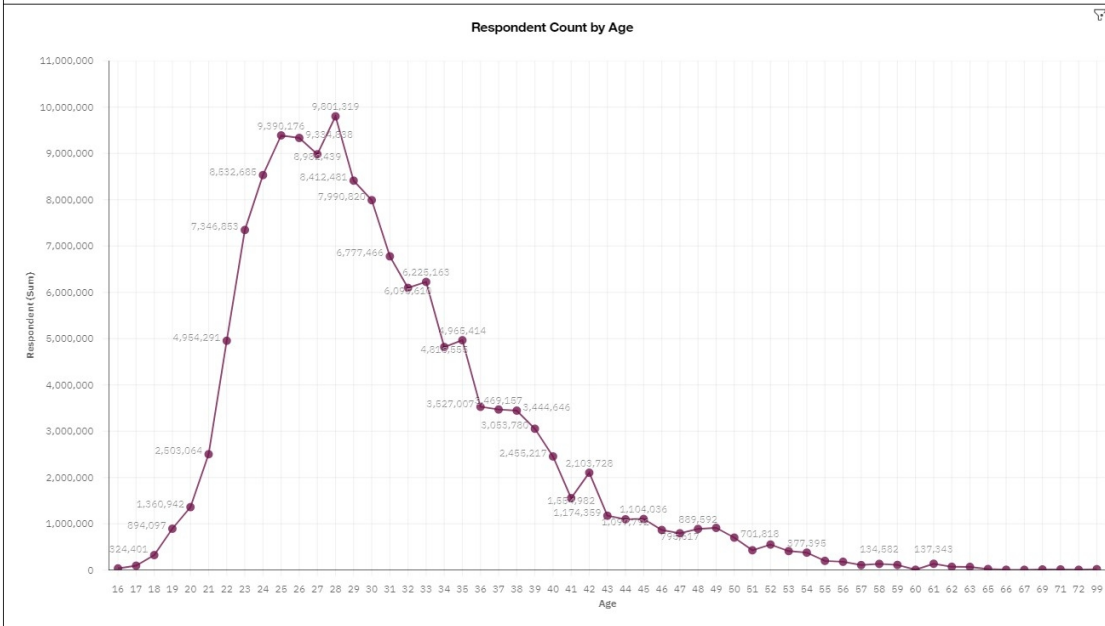
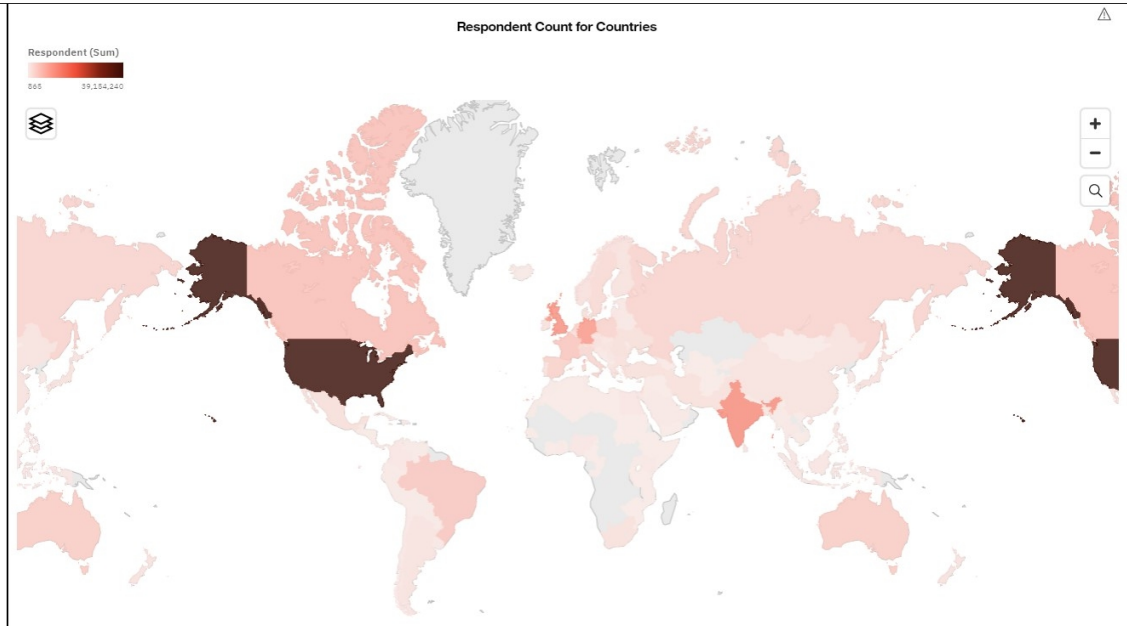
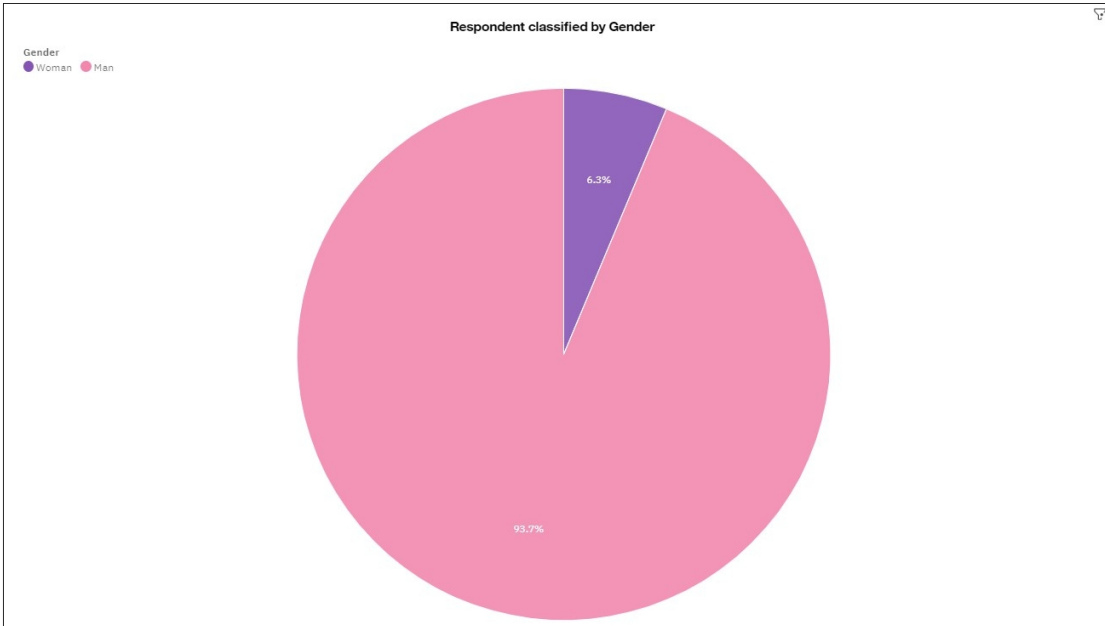
Dashboard 1: Current Tech Usage



Dashboard 2: Future Tech Trend



Dashboard 3: Demographics



Discussion

- Only 6% of women are represented in technology jobs
- The peak age of respondents working in technology is 28 years old
- The concentration of jobs is mostly based in the United States



Conclusion



- Research indicates that 7 out of 10 people will need to reskill to become competitive
- Business are integrating more Data Analytics and AI for process efficiency
- Jobs in the technology field are among the high paying in various industries

Appendix

- Over 90% of the jobs indicated need for knowledge of C programming language

GitHub Job Posting

