



STACK OVERFLOW DEVELOPER SURVEY 2019

Md. Abu Dayan Siddik
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OUTLINE



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

EXECUTIVE SUMMARY



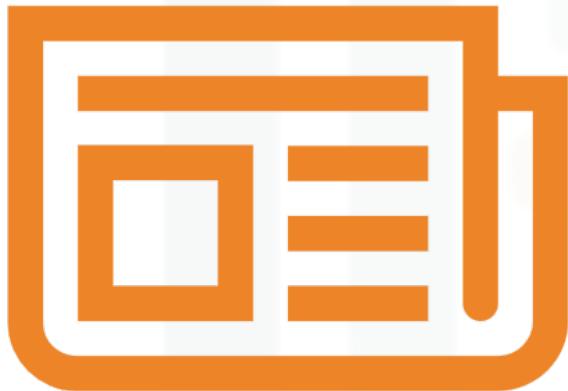
- JavaScript and HTML are the most popular Web-based languages.
- MySQL is the most used database, but the popularity of PostgreSQL and MongoDB are increasing.
- Windows and Linux still dominate all developing platforms while docker's popularity is increasing.
- For the mobile platform, Android wins by no contest.
- jQuery is one of the most popular web frameworks but is losing its popularity when React.js is gaining noticeably.
- Most Developers are men, residing in the USA, in late adolescence/young adulthood, and bachelor's degree holder

INTRODUCTION



- The technology market changes quickly every year.
- It is important to catch up with the latest technology in each field.
- The comparison between current and next year's technology trends will provide a great inside of the market.
- The study consists of 5 main parts:
 - Top 10 Languages (Current, Future)
 - Top 10 databases (Current, Future)
 - Top platforms (Current, Future)
 - Top 10 web frameworks (Current, Future)
 - Respondents
 - Gender
 - Country
 - Age
 - Education Level

METHODOLOGY



- The data is collected from the 'Stack Overflow Developer Survey 2019'.
- The technology trend is studied by comparing current and future technology usage.
- Respondents' gender, country, age, and education level are studied from demographics
- Different charts, such as bar, column, line, pie, treemap, and word cloud are used to visualize the result.
- The Google Looker Studio dashboard is used to analyze data and create visualization.

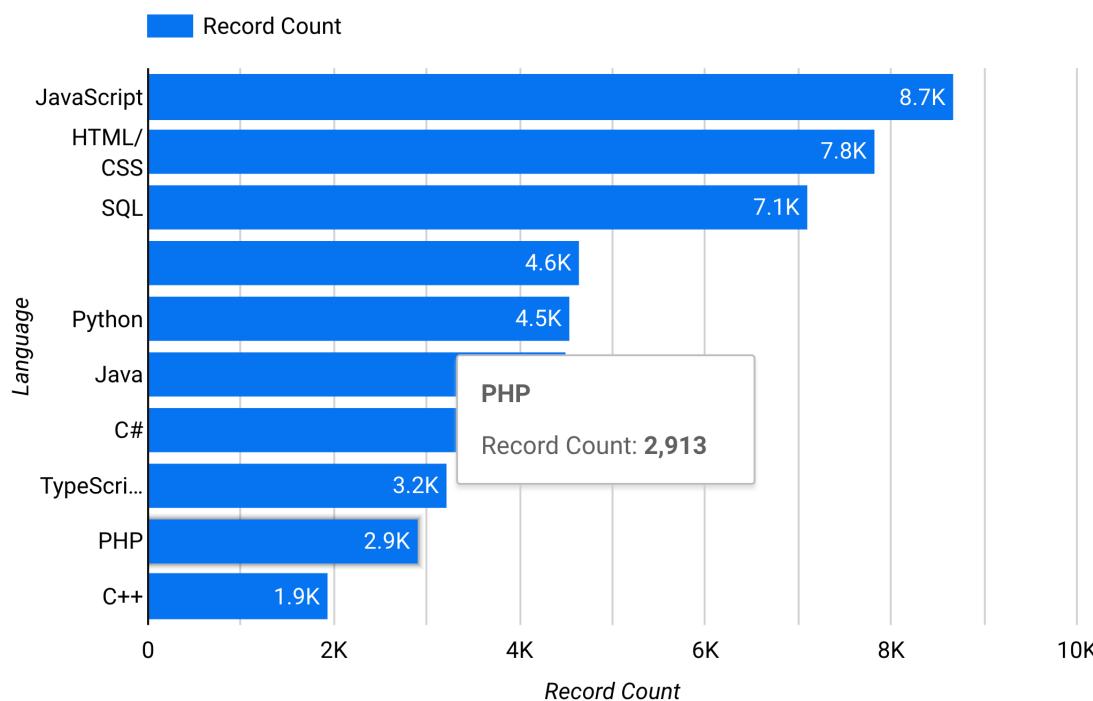
RESULTS

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- The results consist of 4 main parts:
 - Programming language trend
 - Database trend
 - Platform trend
 - Web frame trend

PROGRAMMING LANGUAGE TRENDS

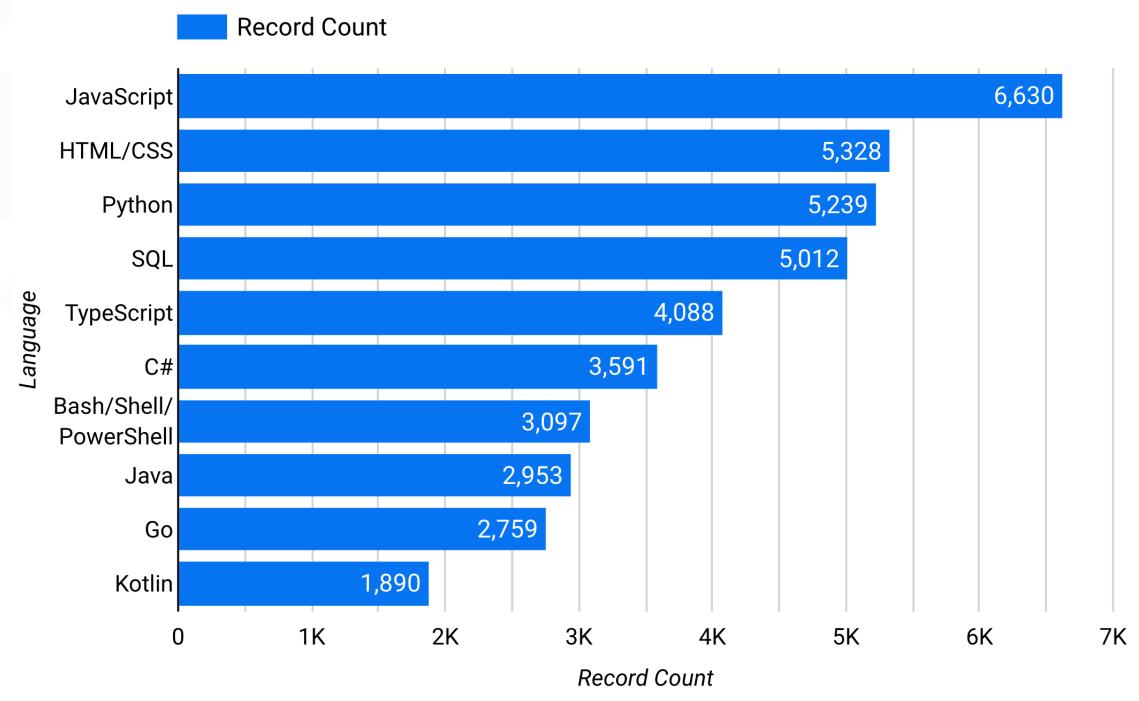
Current Year

Top 10 Language Worked With



Next Year

Top 10 Language Desire Next Year.



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

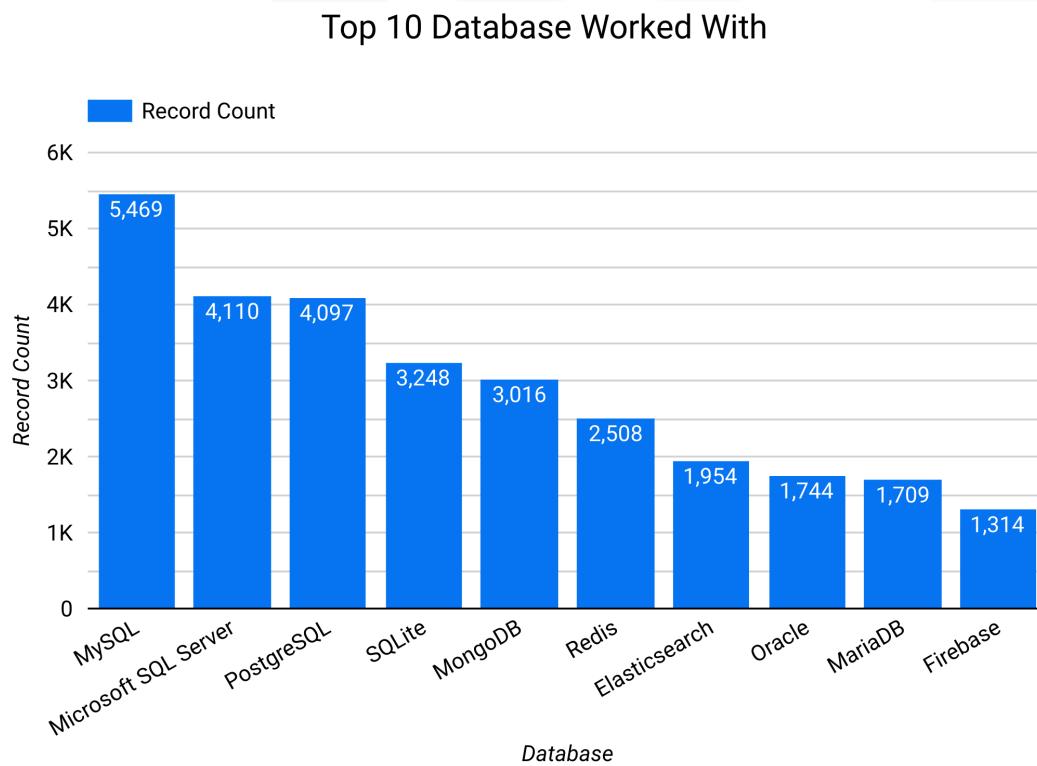
- JavaScript & HTML/CSS are top programming languages for both current and future trends.
- Python moves from 5th position to 3rd position in top 10.
- Java moves from 6th to 8th position.
- C++ and PHP are disappearing from the top 10.

Implications

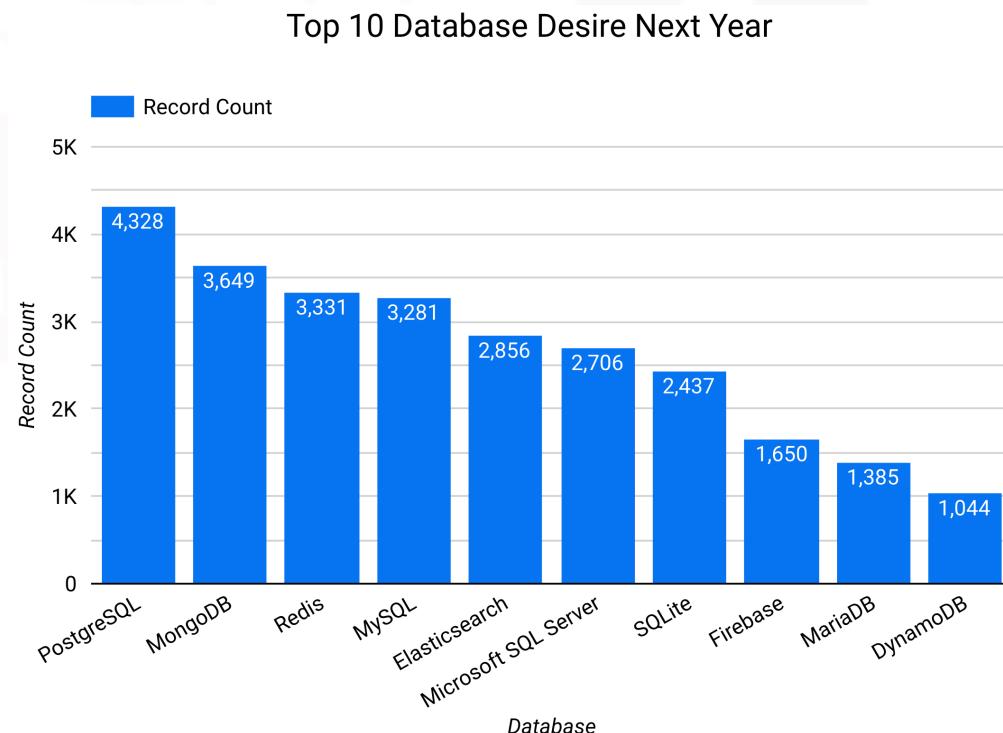
- Web programming languages will stay dominant shortly.
- Python and data science are becoming more and more dominant.
- Legacy languages such as C++ and PHP are gradually falling out of interest.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL moves from No.3 to No.1
- MongoDB & Redis quickly moves up to No.2 and No.3
- MySQL and MS SQL server drops respectively from No.1 to No. 4 and No.2 to No.6
- Oracle disappear from top

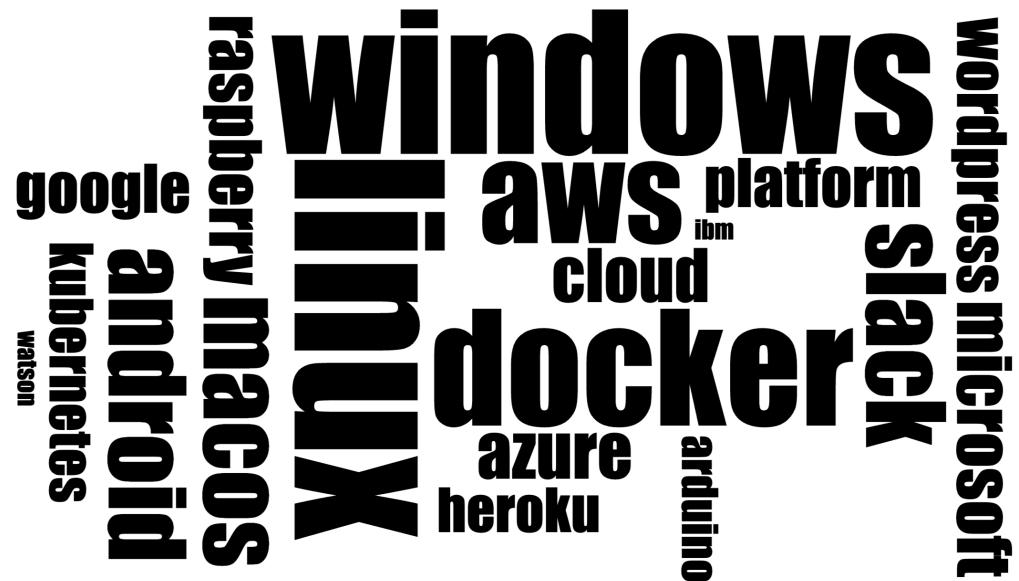
Implications

- Open source databases become more and more popular compared with commercial ones.
- Non-relational databases seem increasing usage in the future.
- Relational database will take a leading position shortly.

PLATFORM TRENDS

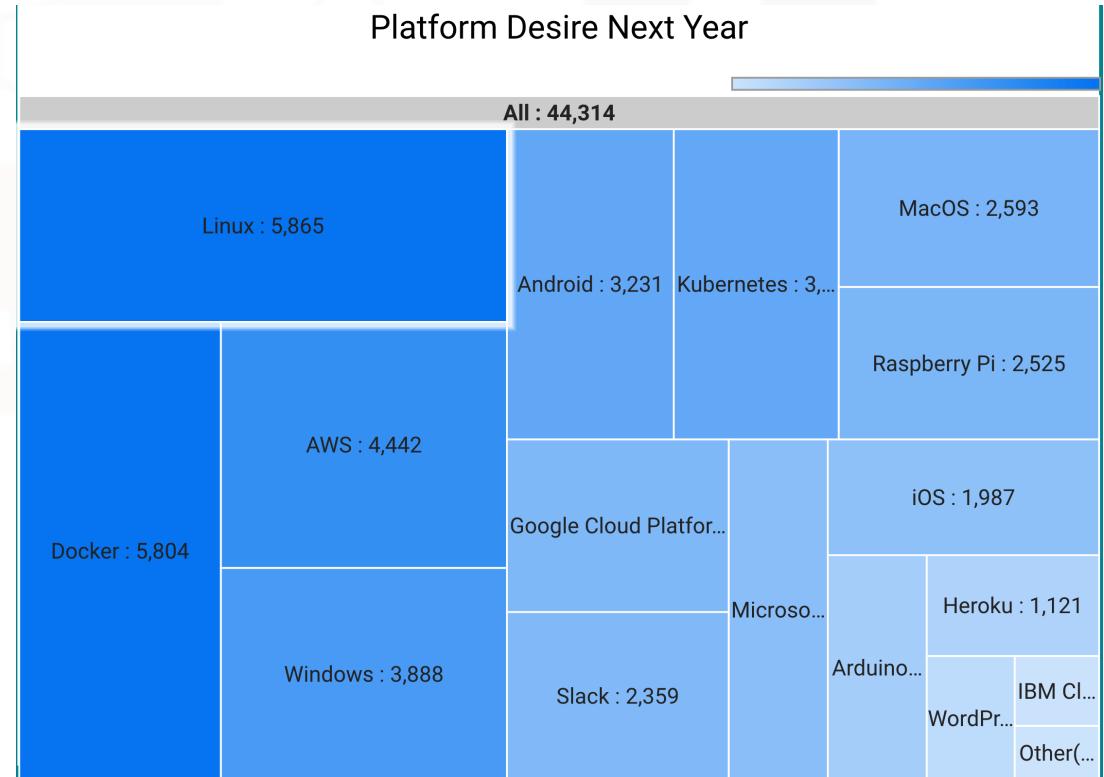
Current Year

Platform Worked With



Next Year

Platform Desire Next Year



PLATFORM TRENDS - FINDINGS & IMPLICATIONS

Findings

- Windows and Linux still dominate the platform trend.
- Android is the No.1 mobile platform.
- Cloud platforms such as Kubernetes, Docker, and AWS are getting market share gradually.

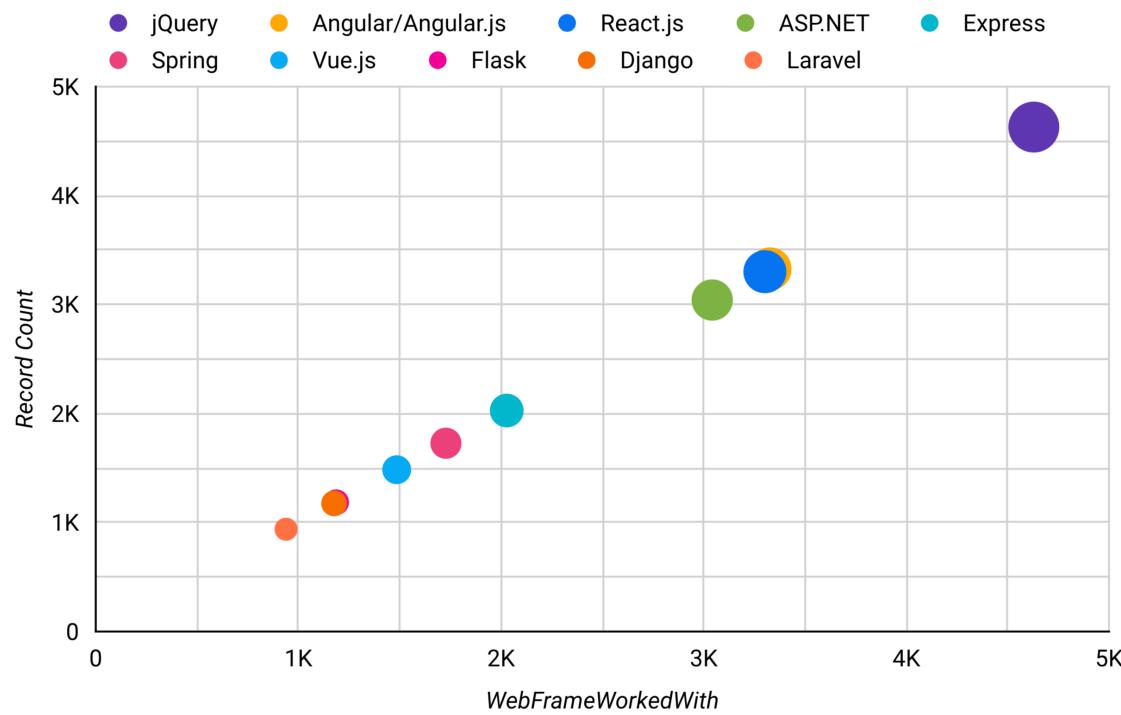
Implications

- Windows and Linux are still the main developing platforms in the foreseeable future.
- The transformation to cloud computing is a non-reversible process.

WEB FRAME TRENDS

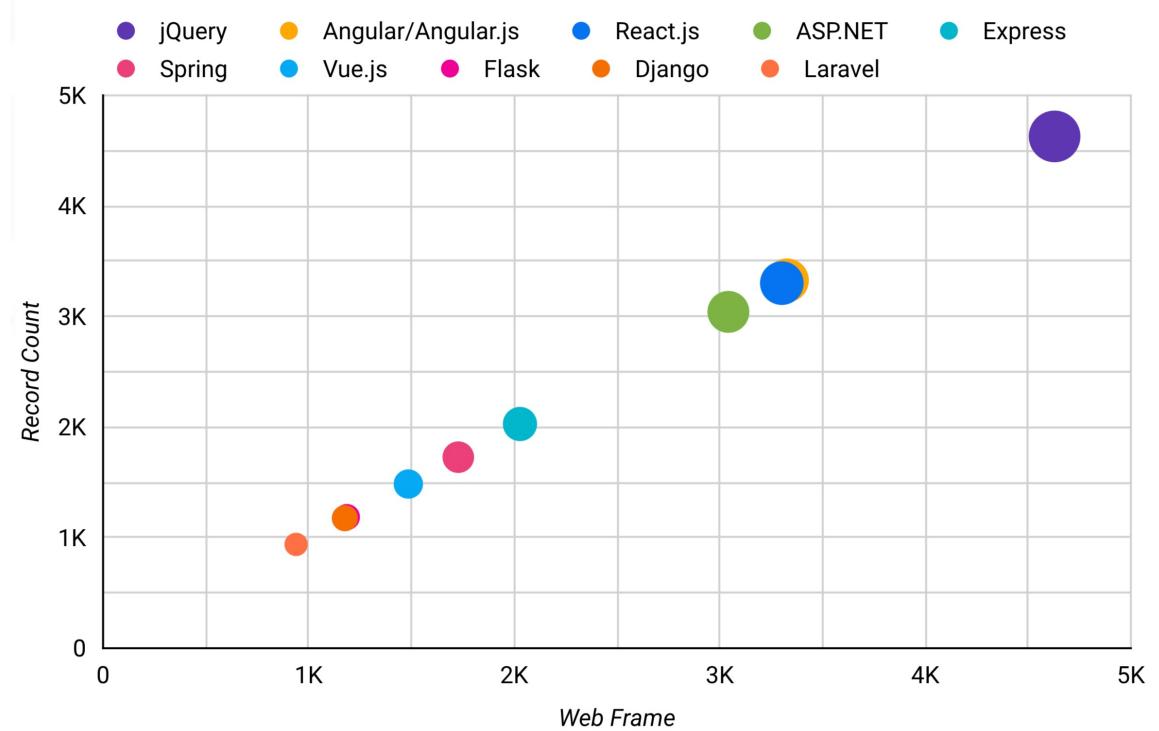
Current Year

Top 10 Web Frame Worked With



Next Year

Top 10 Web Frame Worked With



WEB FRAME TRENDS - FINDINGS & IMPLICATIONS

Findings

- jQuery decreases from No.1 to No.4.
- React.js moves up from No.3 to No.1
- Vue.js moves from No.9 to No.3.
- Angular.js stays in the same position.

Implications

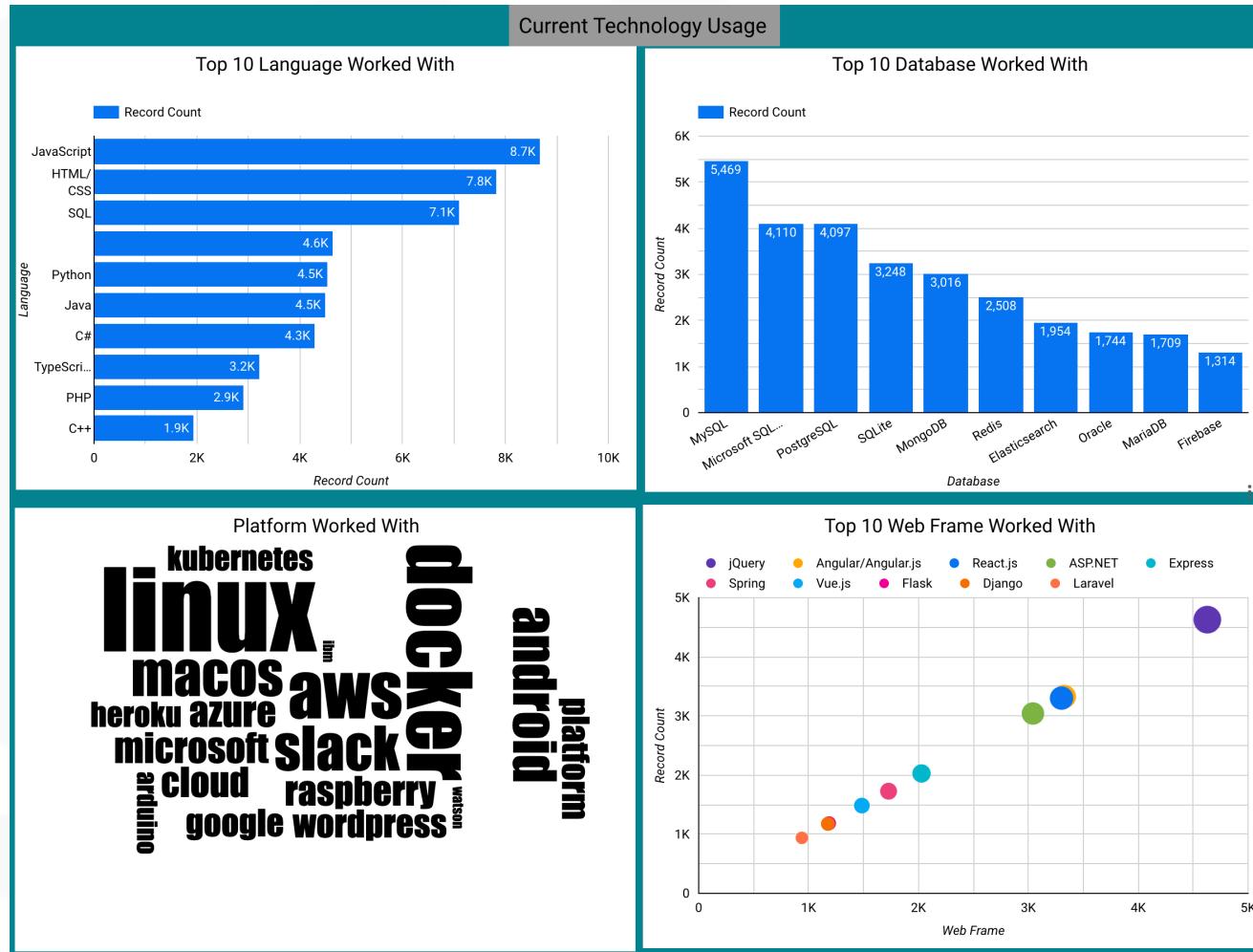
- jQuery quickly loses market share since showing a lack of interest in its future development.
- React.js and Vue.js become the new standard for web frame development.

DASHBOARD



<<https://github.com/Dayan94/IBM-Data-Analyst-Professional-Certificate/blob/main/README.md>.>

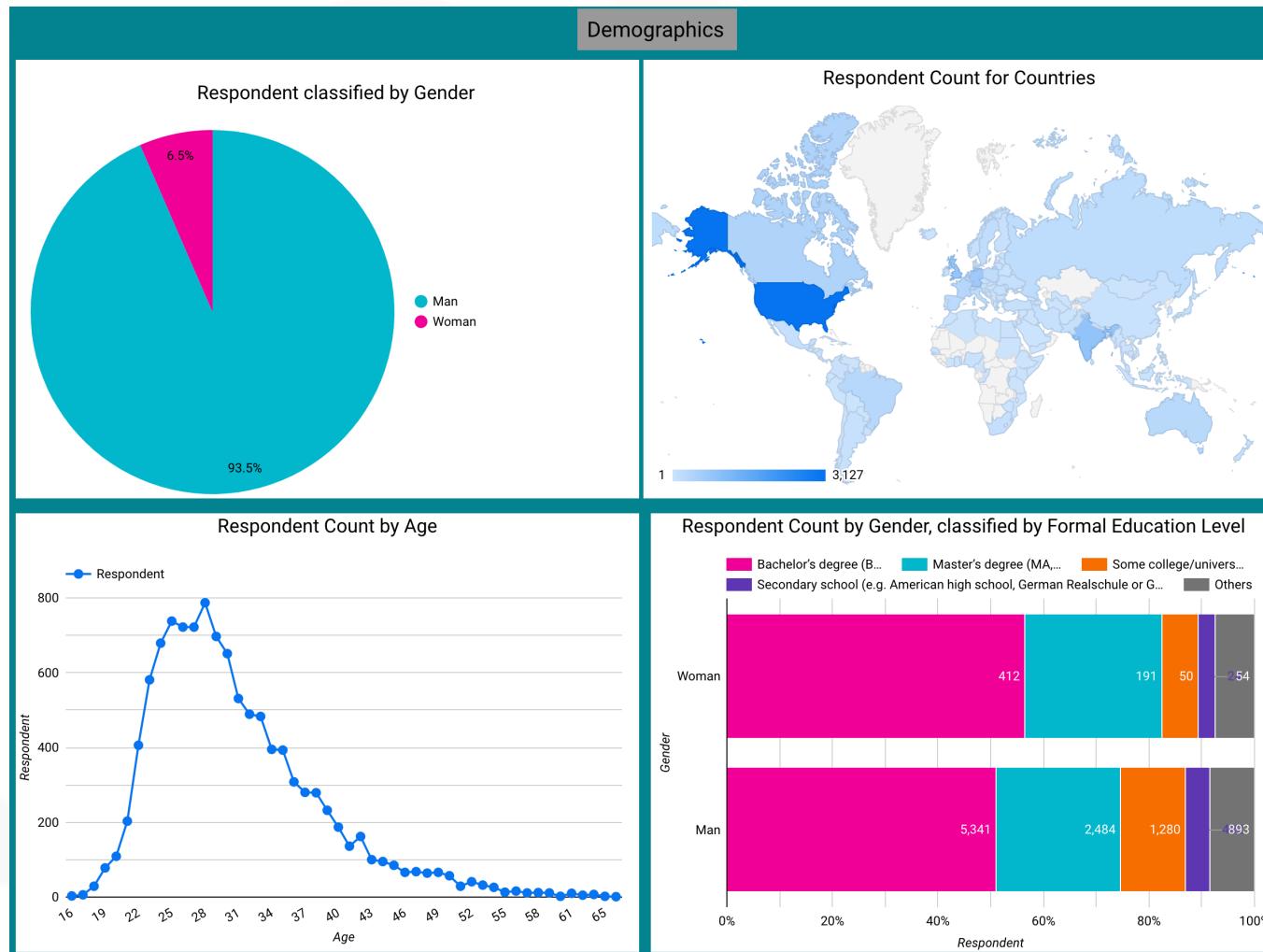
DASHBOARD TAB 1



DASHBOARD TAB 2



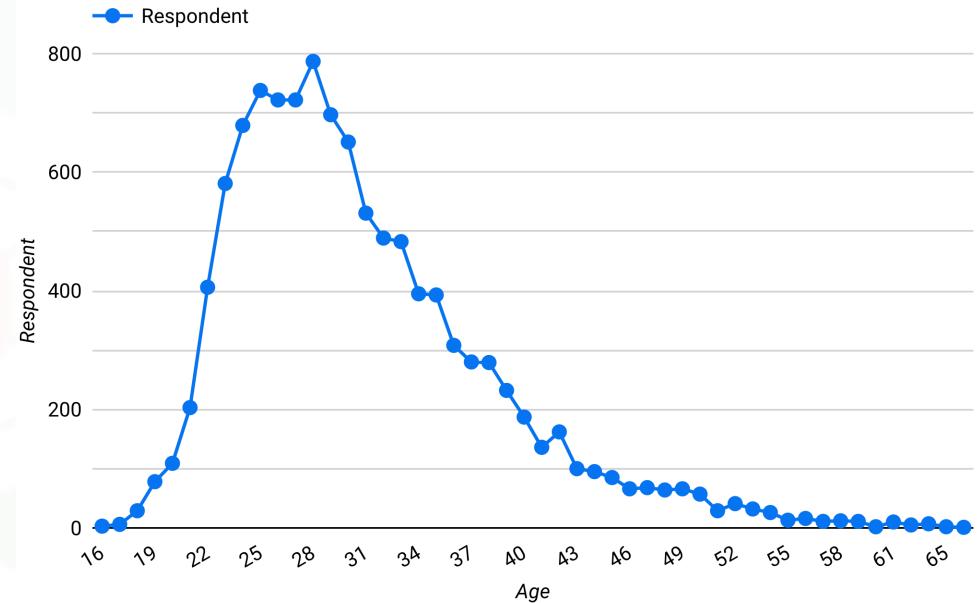
DASHBOARD TAB 3



DISCUSSION



Respondent Count by Age



- The majority of respondents are young (20, 30), which could skew the result in favor of new technology.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Web-based language stays at No.1
- Non-relational database moves to No.2 & No.3
- Cloud-based platform moves to No.1
- React.js will lead at No.1 on the web framework
- The man-woman percentage gap is pretty huge, 93.5% and 6.5% respectively

Implications

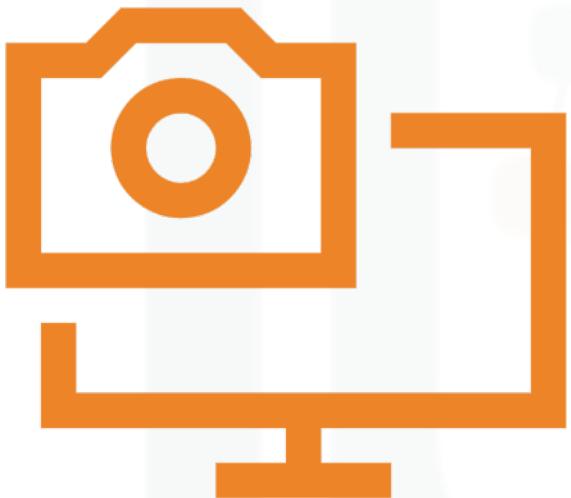
- Web-based applications are taking over the traditional application.
- Non-relational database shows increasing adoption.
- Cloud-based services become the top choice for platform development.
- Men are more prone to become developers than women

CONCLUSION

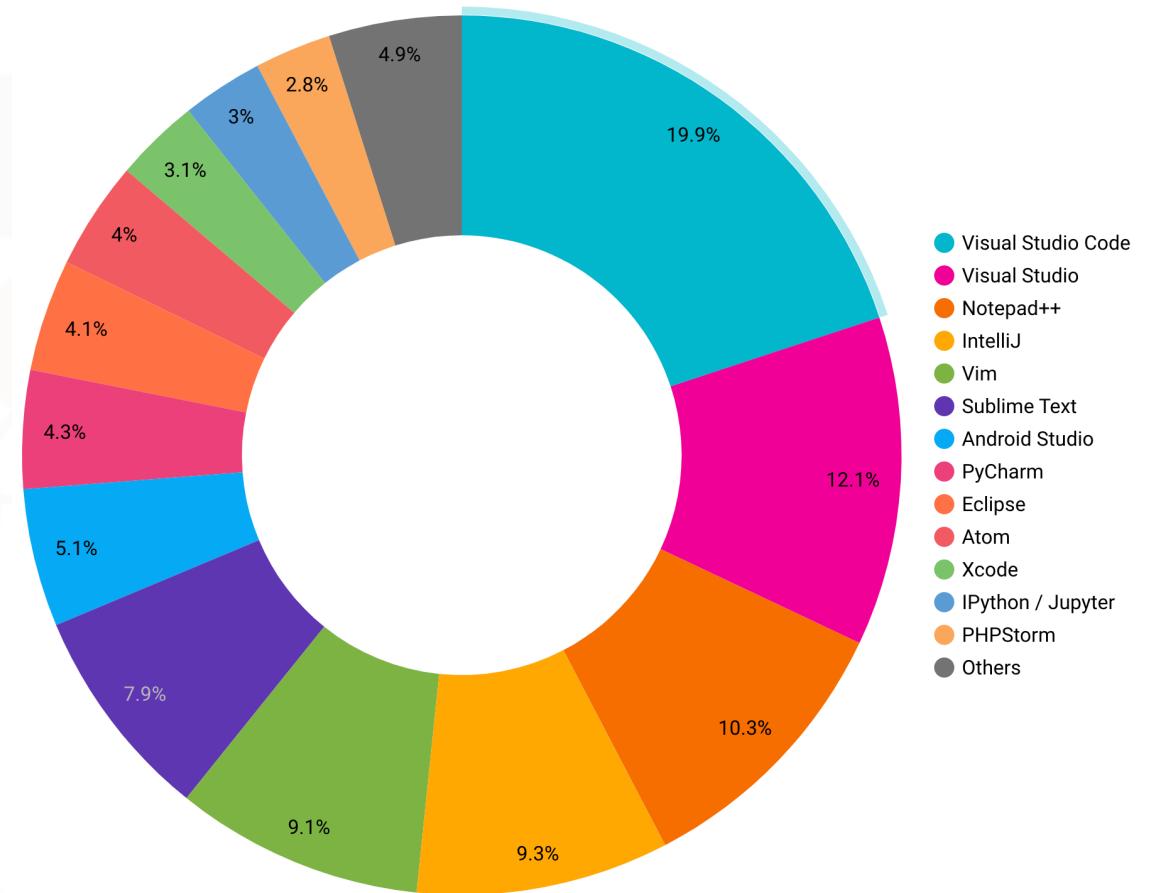


- To stay relevant in the technology field, it's important to learn web-based language & non-relational databases.
- Among web frameworks, React.js is the best to learn for your future.
- Cloud-based service is the right direction for IT investment.
- Women should participate more in the development sector to mitigate the huge gap in the man-woman percentage.

APPENDIX

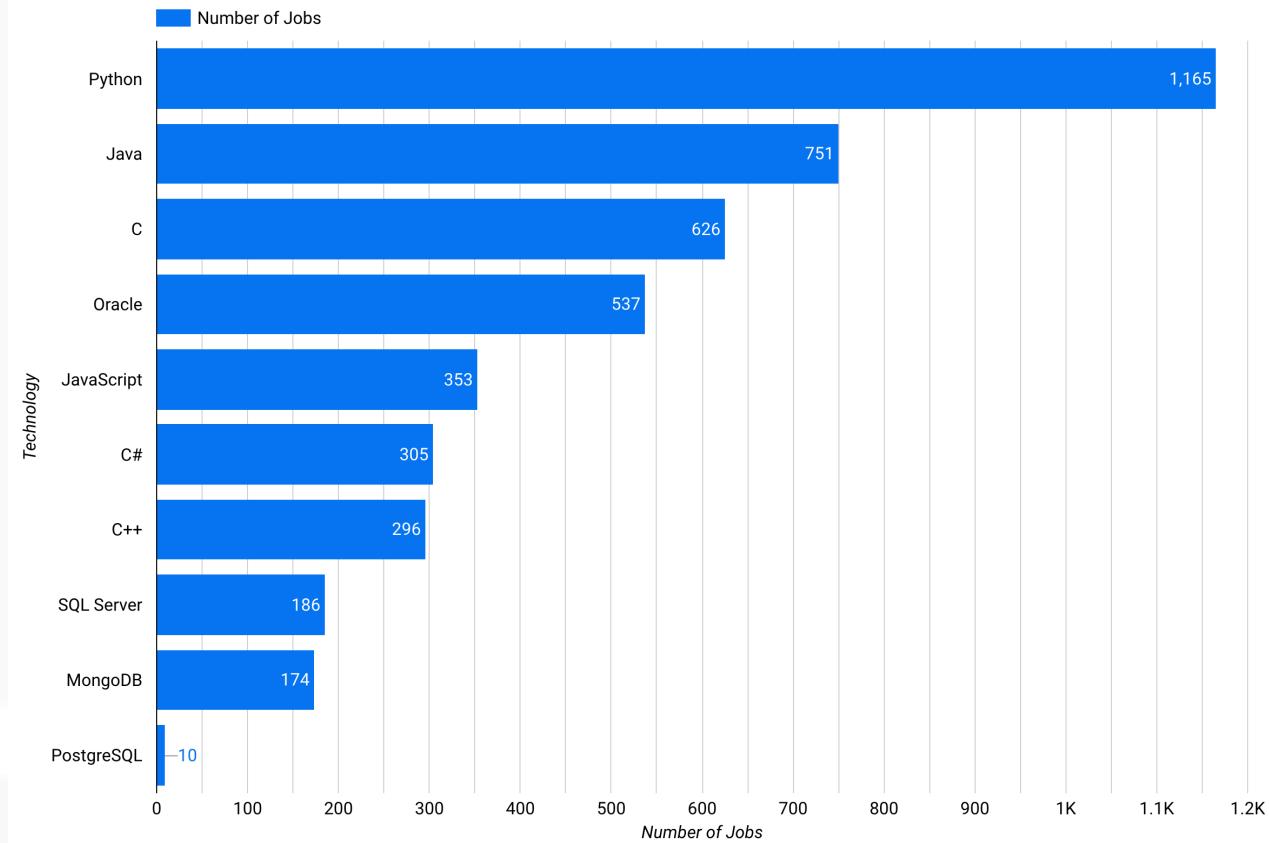


Different Development Environment Usage Percentage



JOB POSTINGS

Job Posting for Different Technologies



POPULAR LANGUAGES

Annual Average Salary for Different Technologies

