

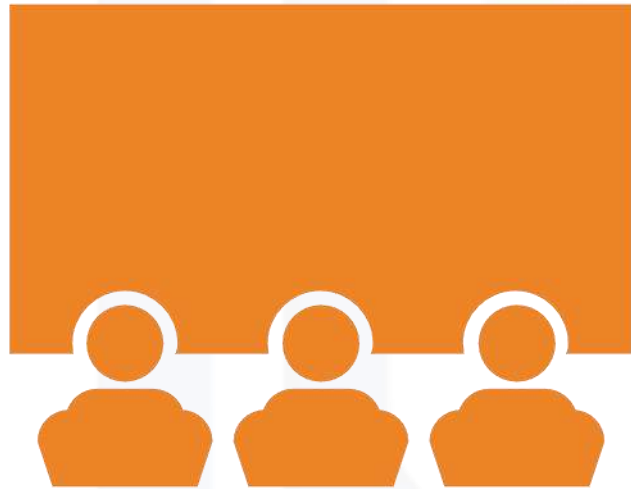


Stack Overflow Developer Survey 2019

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24/03/2024

OUTLINE



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

EXECUTIVE SUMMARY



- **Current Technology Usage**
 - Top 10 Languages
 - Top 10 Databases
 - Platforms
 - Top 10 Web Frames
- **Future Technology Trends**
 - Top 10 Languages desired for the next year
 - Top 10 Databases desired for the next year
 - Desired platforms for the next year
 - Top 10 Web Frames desired for the next year
- **Demographics**
 - Respondent classified by gender
 - Respondent count for countries
 - Respondent count by age
 - Respondent count by gender and classified by education level

INTRODUCTION



- Stack Overflow Developer Company Conducted a Survey among their Developers about technology trends in different locations of world in 2019.
- The categories they considered with
 - Current Technology
 - Future Technology
 - Demographics
- Audience
 - IT Professionals
 - IT company Directors

METHODOLOGY

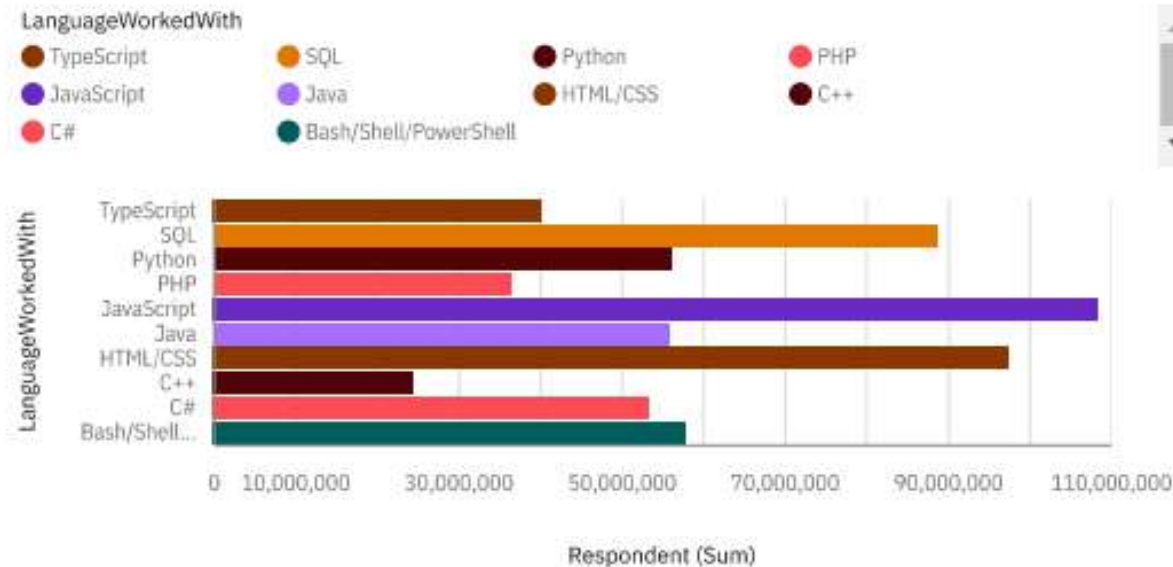


- Data Sources
 - The 2019 Stack Overflow Developer Survey
 - m5_survey_data_demographics.csv
 - m5_survey_data_technologies_normalised.csv.
- Data Wrangling and Cleaning
 - Python
- Data Visualization
 - IBM Cognos Analytics
- Presentation
 - Microsoft Power Point

PROGRAMMING LANGUAGE TRENDS

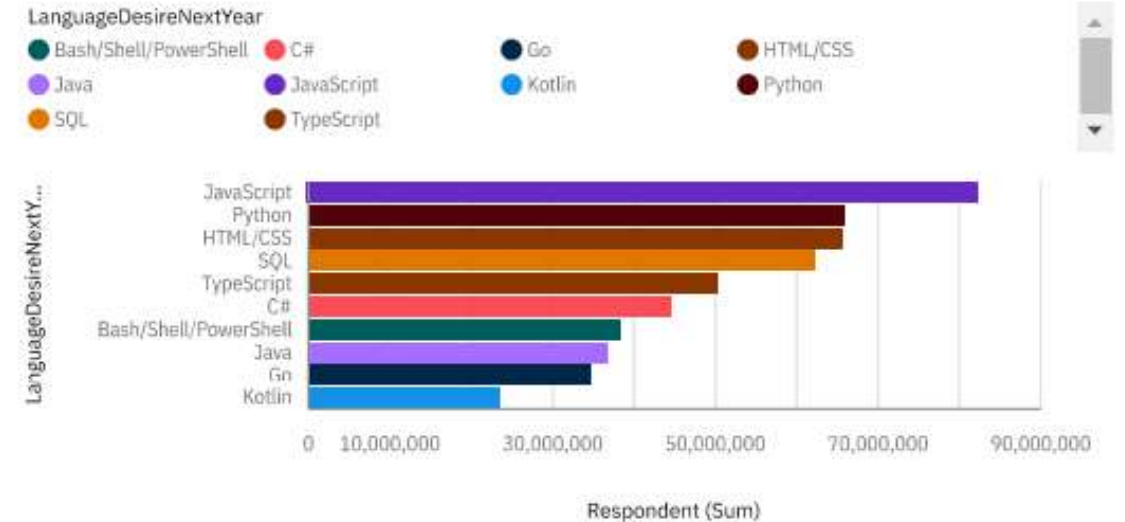
Current Year

Top 10 Programming languages respondents worked with



Next Year

Top 10 Programming Languages respondents want to learn next year



PROGRAMMING LANGUAGE TRENDS

- FINDINGS & IMPLICATIONS

Findings

- JavaScript has the highest count as the language respondents work with and want to learn next year.
- HTML/CSS has the second highest count as the language respondents work with and want to learn next year.
- Python ranks third as the programming language respondents work with but second for the desired language for next year
- Notably, the trend for SQL doesn't change between current and next year.

Implications

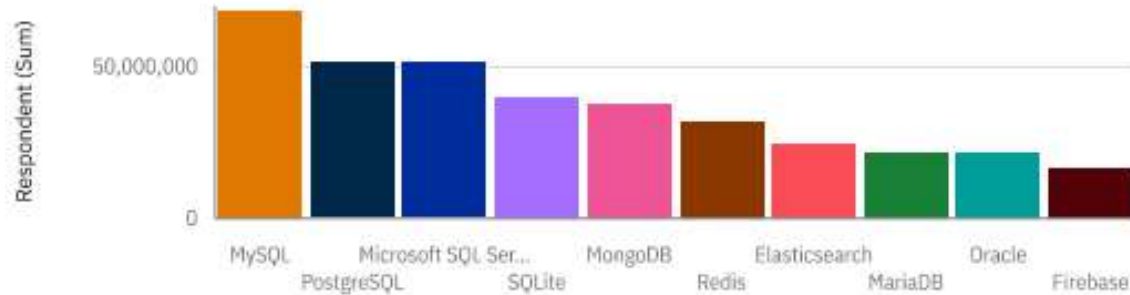
- JavaScript is the most popular programming language among respondents
- HTML/CSS is the second most popular programming language among respondents, following JavaScript
- Python will become a prevalent language soon
- SQL maintains its popularity

DATABASE TRENDS

Current Year

Top 10 Databases respondents worked with

DatabaseWorkedWith

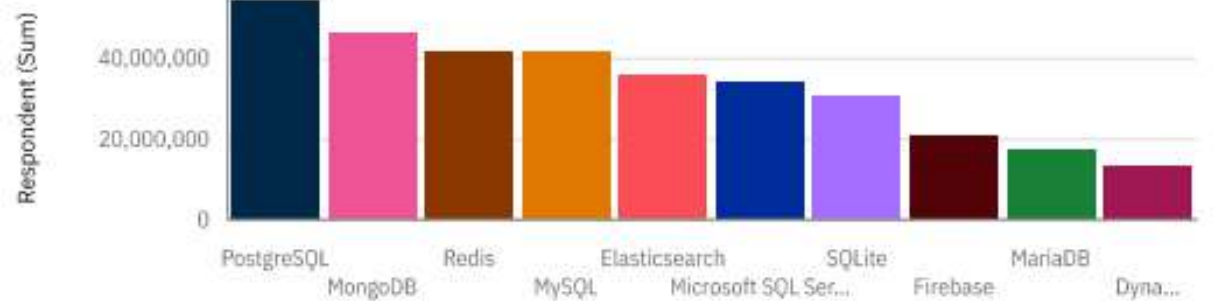


DatabaseWorkedWith

Next Year

Top 10 databases respondents want to learn next year

DatabaseDesireNextYear



DatabaseDesireNextYear

DATABASE TRENDS – FINDINGS & IMPLICATIONS

Findings

- MySQL is ranked as the top database respondents worked with but the fourth database respondents want to learn next year.
- PostgreSQL is ranked as the second database respondents worked with, but the top database respondents wants to learn next year.
- MongoDB is ranked as the second database respondents want to learn next year.
- Redis has the similar trend as MongoDB

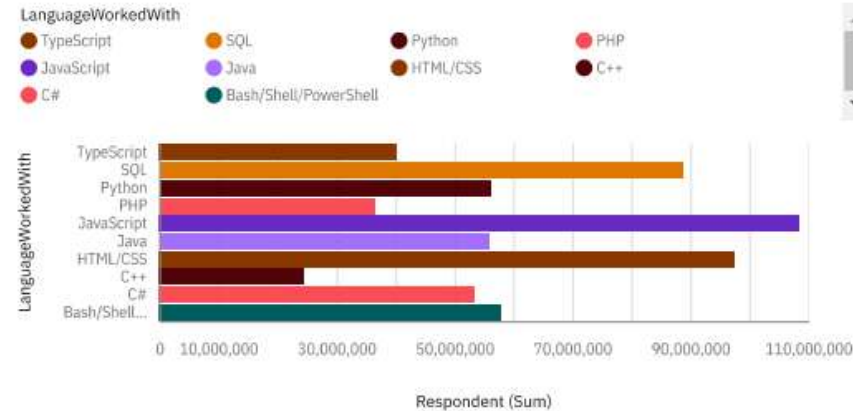
Implications

- MySQL is losing its popularity.
- PostgreSQL is gaining its popularity and possibly the most popular database in the nearly future
- MongoDB will be among the top popular database.
- Redis is predictably among the most popular database in the future year too

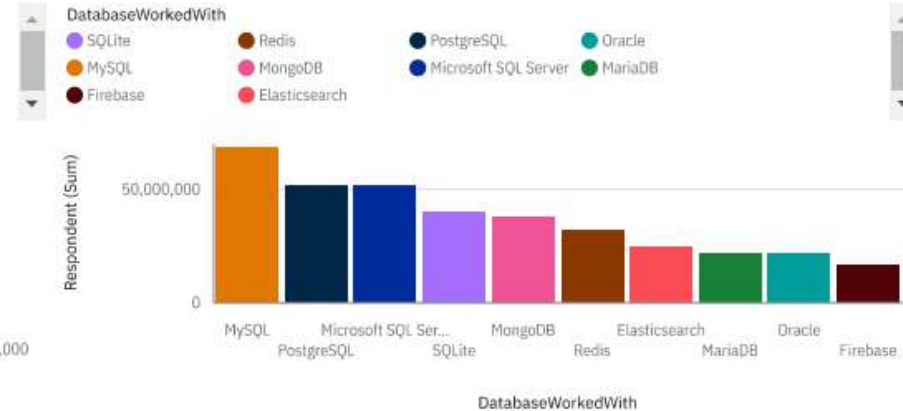
DASHBOARD TAB 1

Current Technology Usage

Top 10 Programming languages respondents worked with



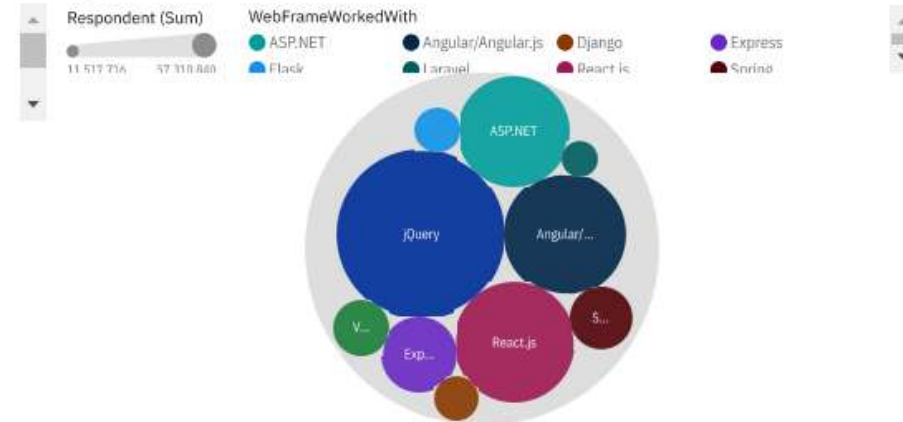
Top 10 Databases respondents worked with



Word cloud chart showing Platforms respondents worked with



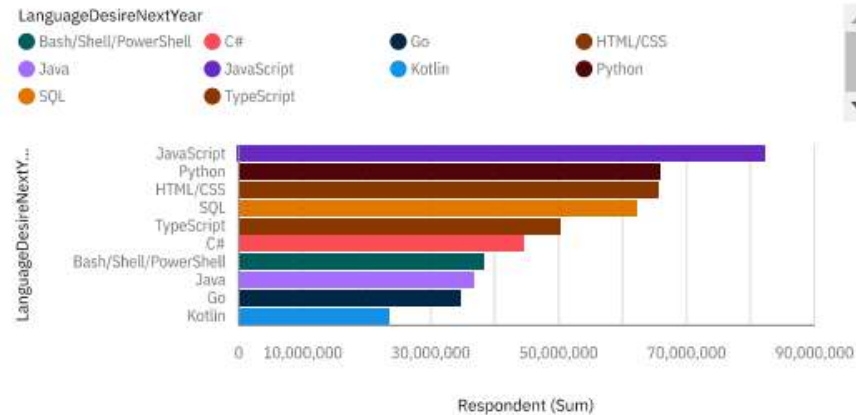
Top 10 WebFrame respondents worked with



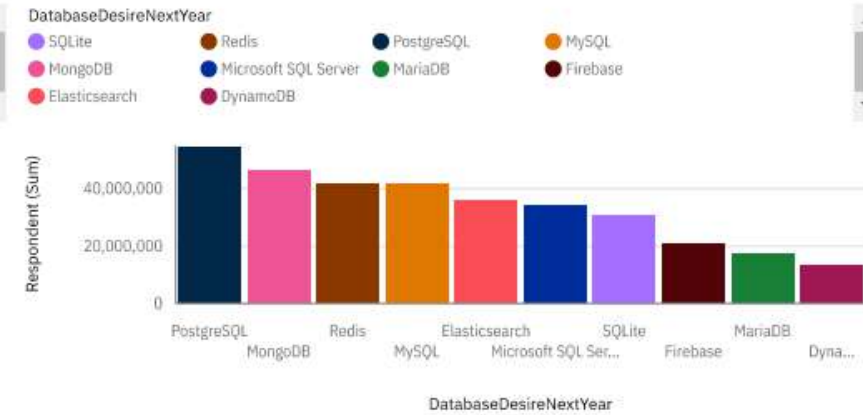
DASHBOARD TAB 2

Future Technology Trend

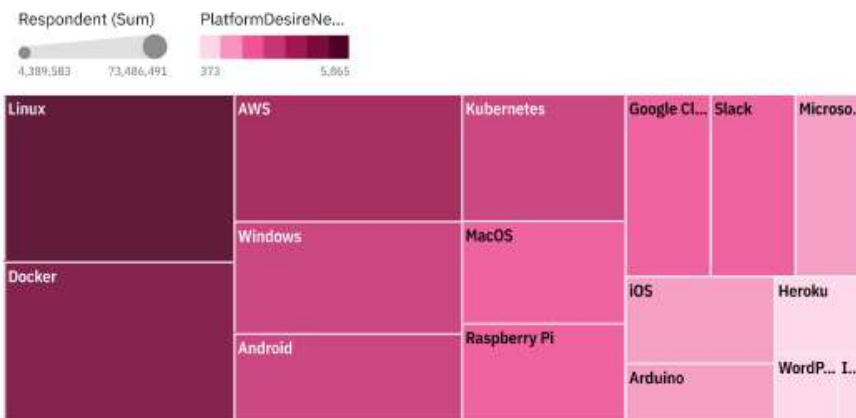
Top 10 Programming Languages respondents want to learn next year



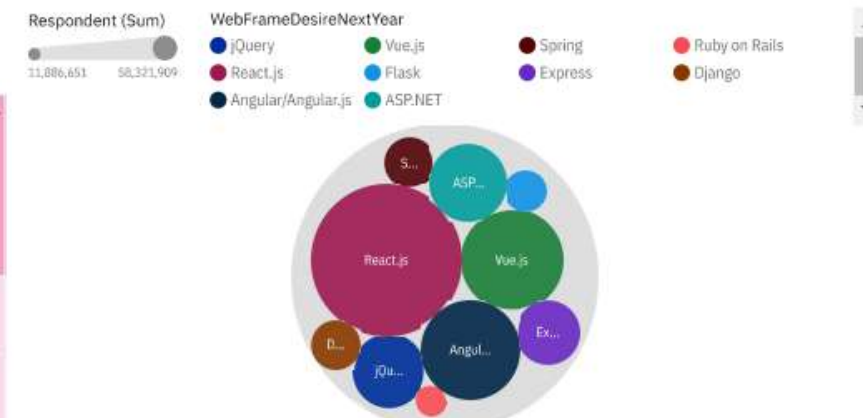
Top 10 databases respondents want to learn next year



Platforms respondents want to use next year



Top 10 WebFrame respondents want to use next year

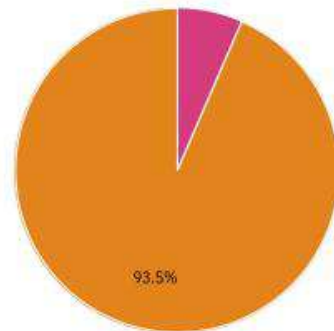


DASHBOARD TAB 3

Demographics

Respondent classified by Gender

Gender
Woman Man

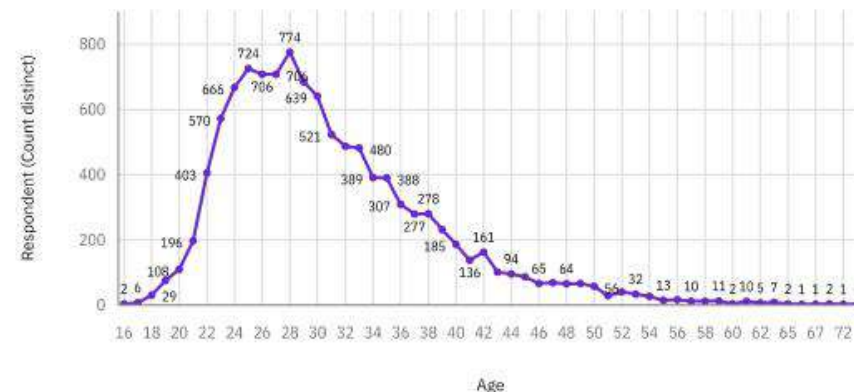


Respondent Count for Countries

Respondent (Count)
1 3,058

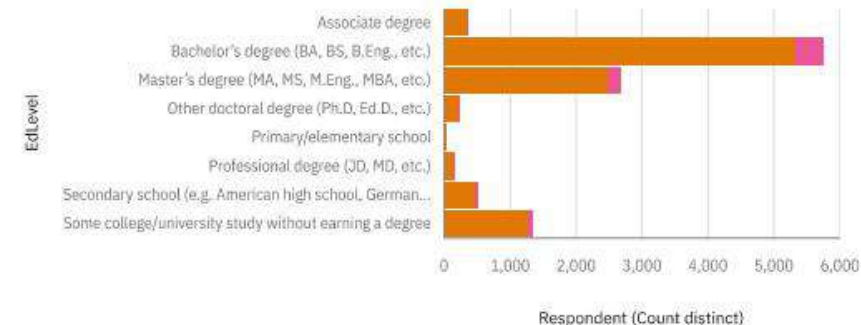


Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level

Gender
Man Woman



Discussions - OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript has the highest count as the language respondents work with and want to learn next year. Meanwhile, PostgreSQL is ranked as the second database respondents worked with, but the top database respondents wants to learn next year
- The visualization shows that Linux is apparently ranked as the top platform respondents worked with and want to use next year
- 93.5% of the respondent is male
- Majority of respondent has Bachelor's or Master Degree

Implications

- JavaScript will remain the most popular programming language, and PostgreSQL might become the most popular database in the nearly future.
- Linux will remain the most popular platform among this group of respondents in the following years.
- The industry is male-dominant.
- Formal high education may not be a necessary requirement for the industry but the data demonstrates that it's better to have a degree

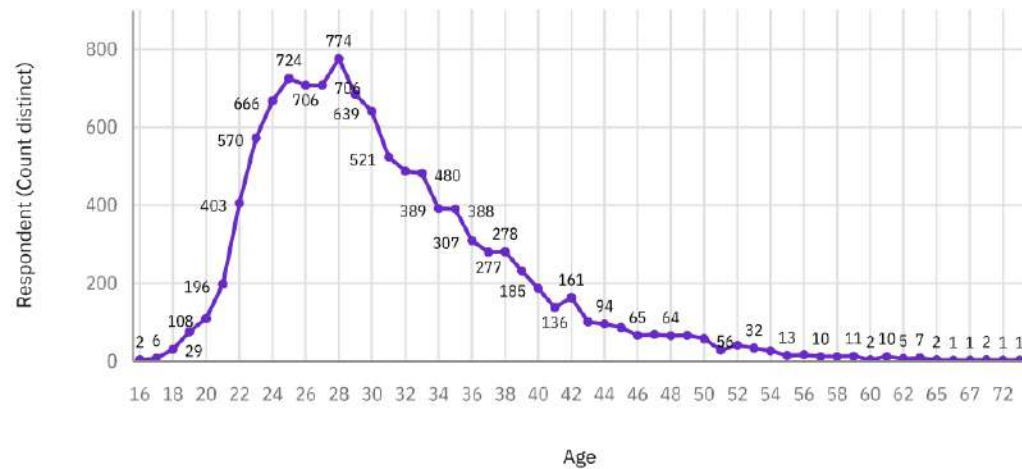
CONCLUSION



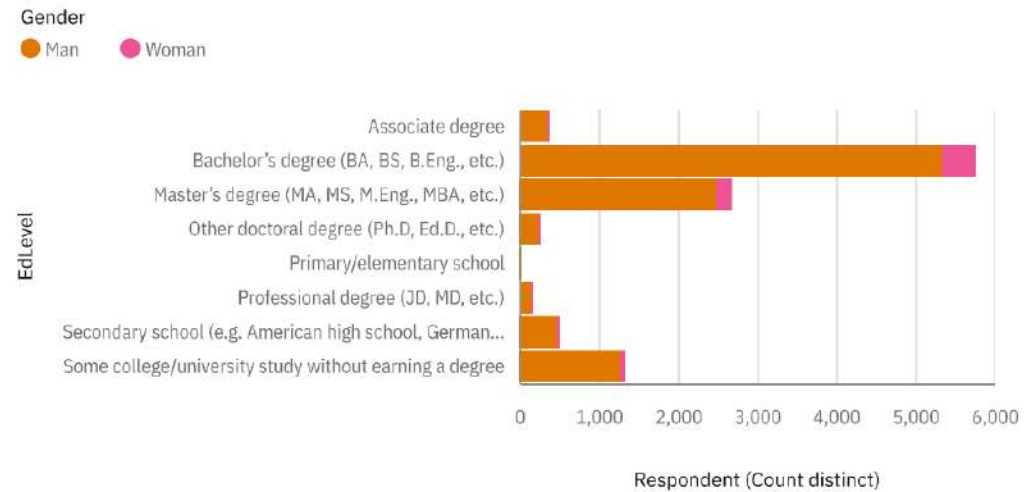
- No change in the trend for the most popular programming language JavaScript, and Python is gaining popularity over HTML/CSS.
- Database trend is changing towards PostgreSQL, MongoDB, and Redis.
- The top 4 platforms are apparently Windows, Linux, AWS, and Docker
- React.js is certainly becoming the most popular WebFrame.
- Male-dominant industry in which candidates may need a formal high education.

APPENDIX

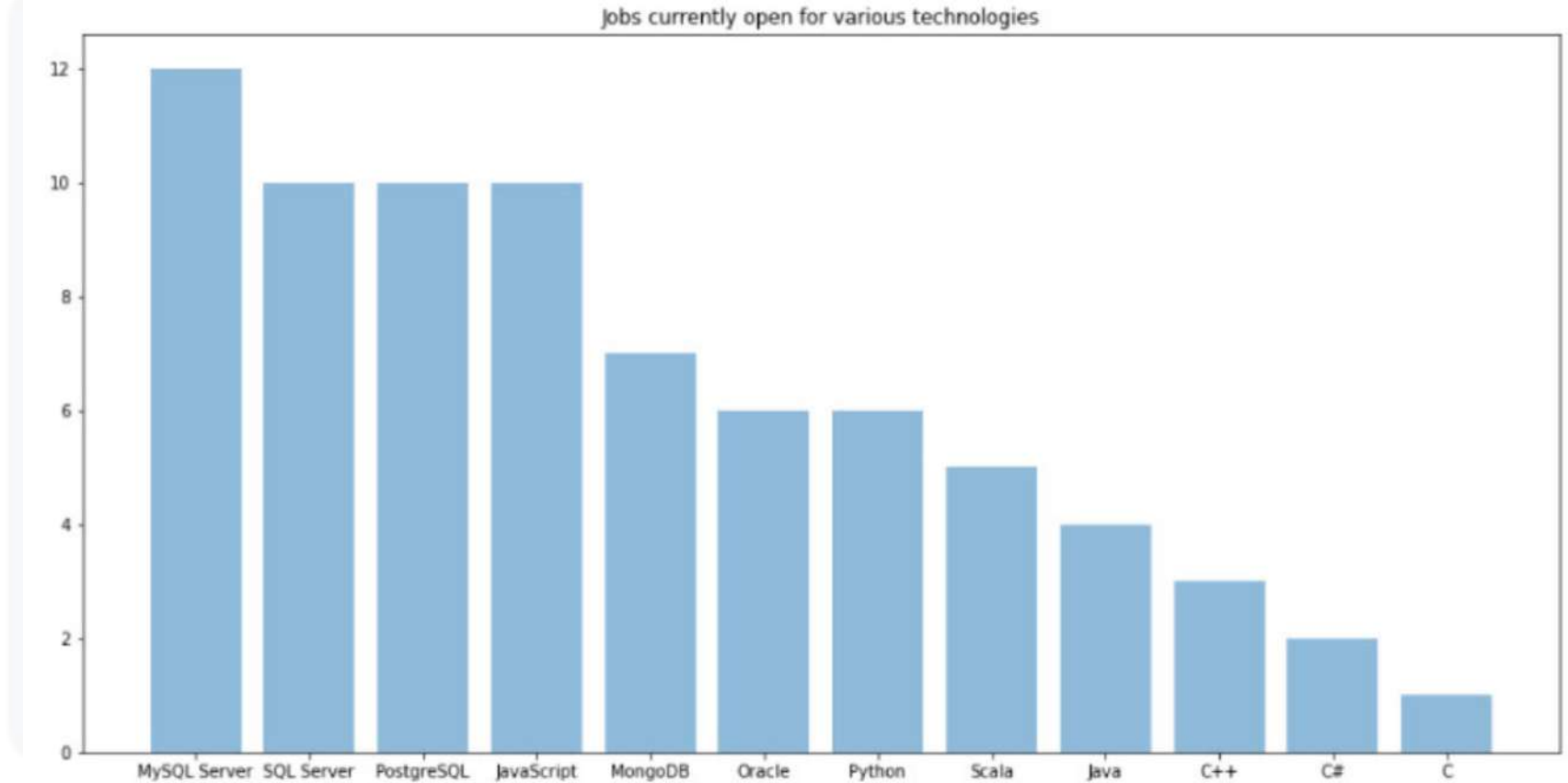
Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



JOB POSTINGS



POPULAR LANGUAGES

