



# Stack Overflow Developer Survey 2019

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- **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

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- 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

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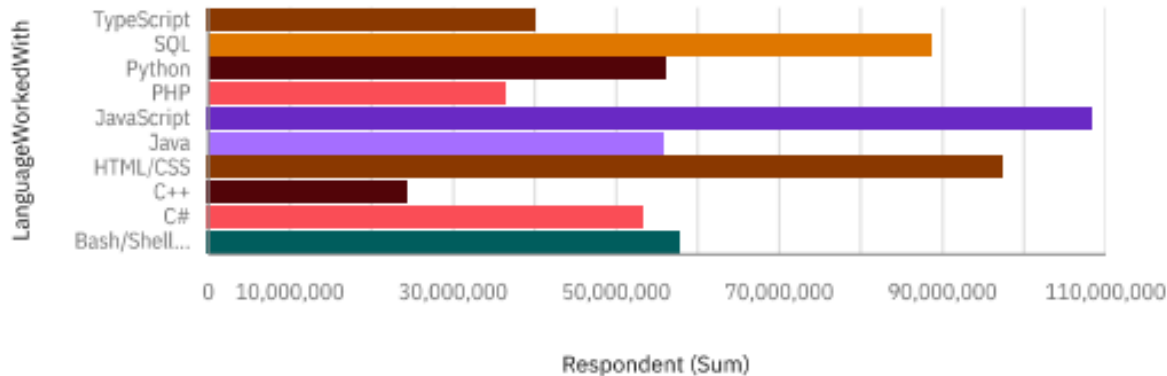
- Data Sources
  - The 2019 Stack Overflow Developer Survey
    - m5\_survey\_data\_demographics.csv
    - m5\_survey\_data\_technologies\_normalised.csv.
- Data Wrangling and Cleaning
  - Python
- Data Visualization
  - IBM Cognos Analytics
- Presentation
  - Microsoft Power Point

# PROGRAMMING LANGUAGE TRENDS

## Current Year

Top 10 Programming languages respondents worked with

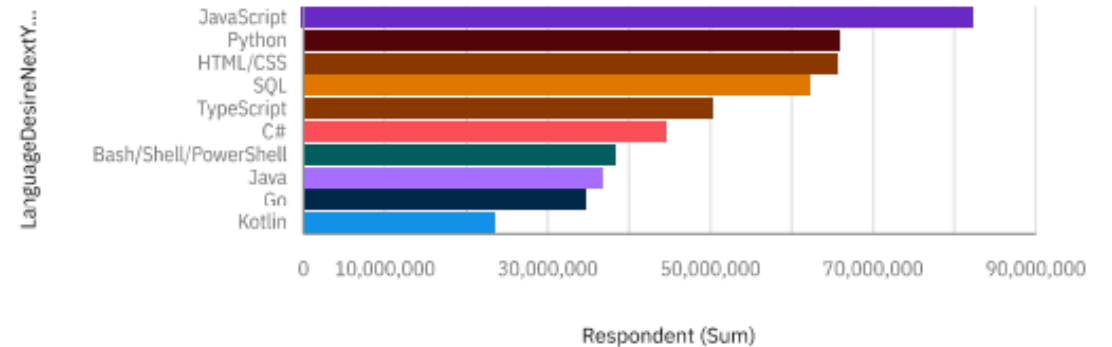
LanguageWorkedWith



## Next Year

Top 10 Programming Languages respondents want to learn next year

LanguageDesireNextYear



# PROGRAMMING LANGUAGE TRENDS

## - FINDINGS & IMPLICATIONS

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### 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

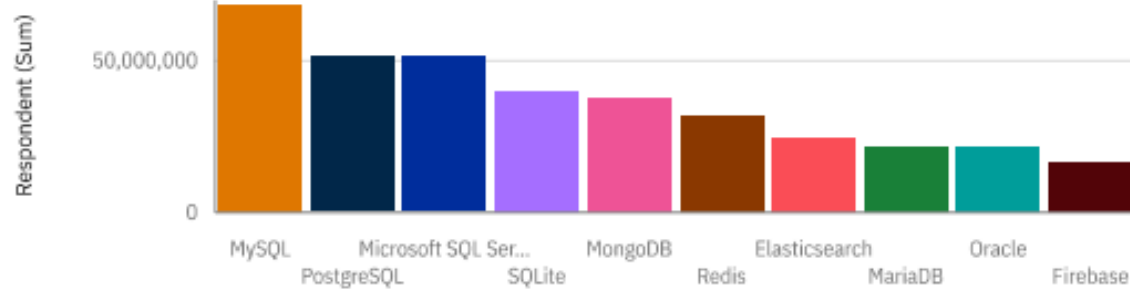
- JavaScript is the most popular programming language among respondents
- HTML/CSS is the second most popular programming language among respondents, following JavaScript
- Python will become a prevalent language soon
- SQL maintains its popularity

# DATABASE TRENDS

## Current Year

Top 10 Databases respondents worked with

DatabaseWorkedWith

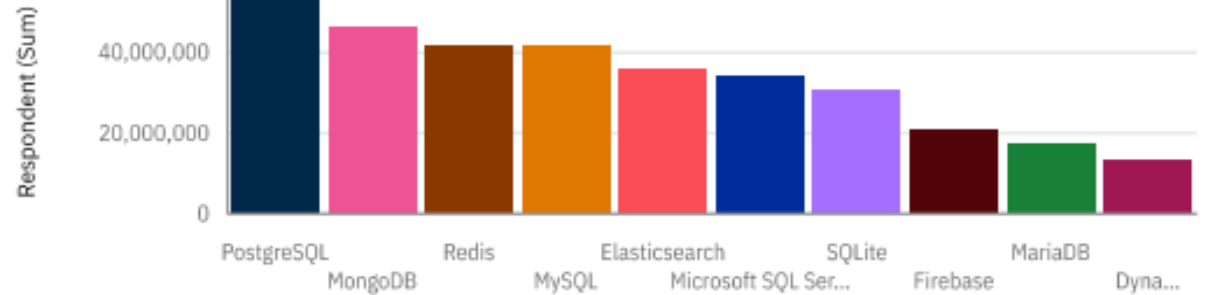


DatabaseWorkedWith

## Next Year

Top 10 databases respondents want to learn next year

DatabaseDesireNextYear



DatabaseDesireNextYear



# DATABASE TRENDS – FINDINGS & IMPLICATIONS

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## 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

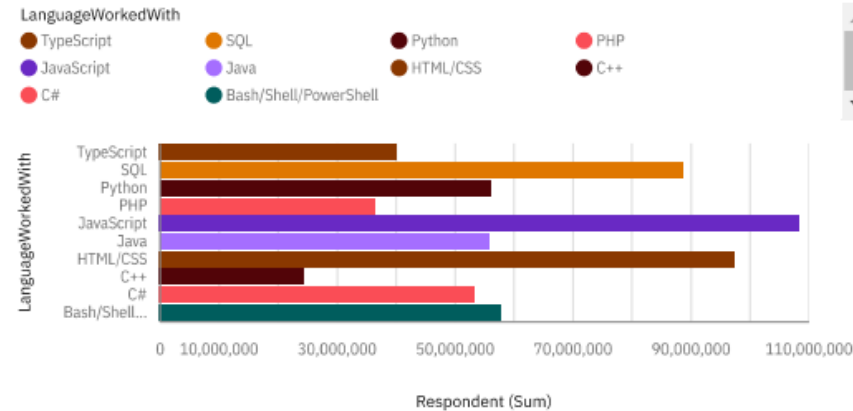
## Implications

- 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

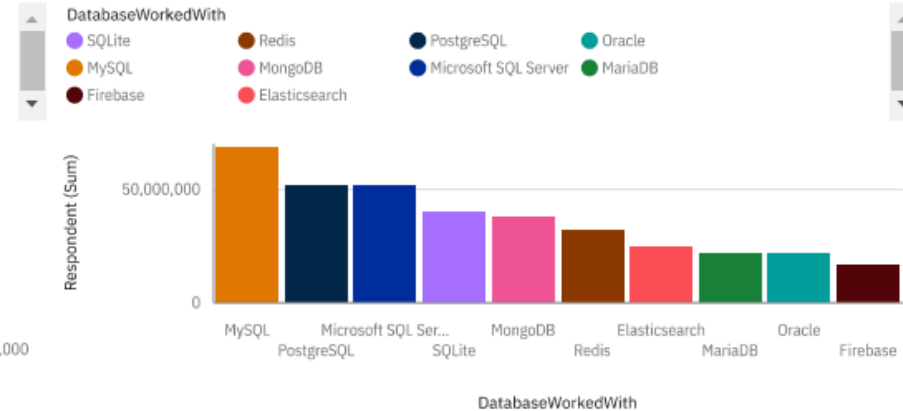
# DASHBOARD TAB 1

## Current Technology Usage

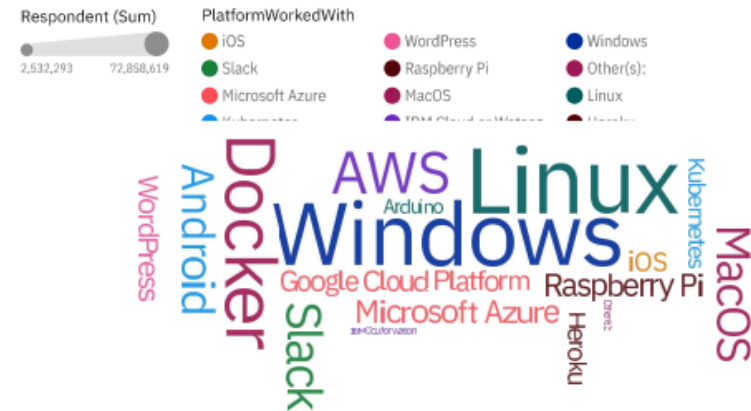
### Top 10 Programming languages respondents worked with



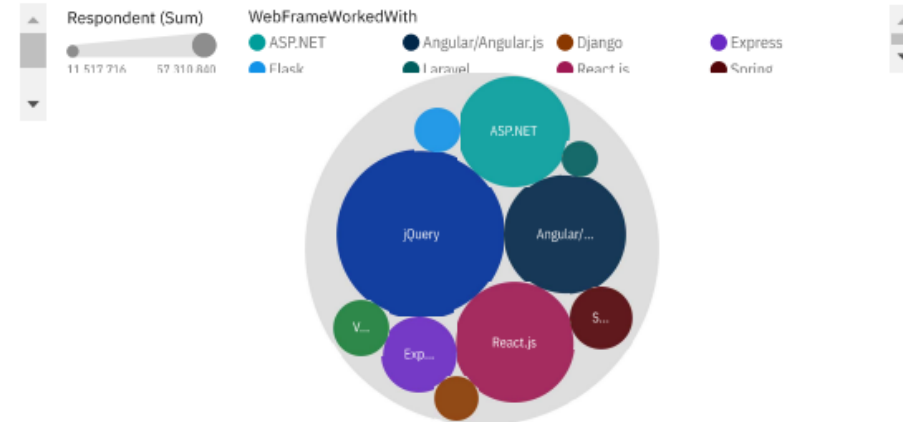
### Top 10 Databases respondents worked with



### Word cloud chart showing Platforms respondents worked with



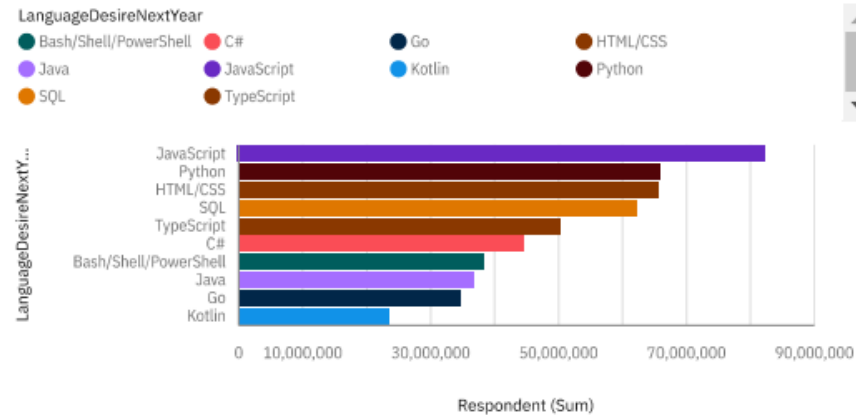
### Top 10 WebFrame respondents worked with



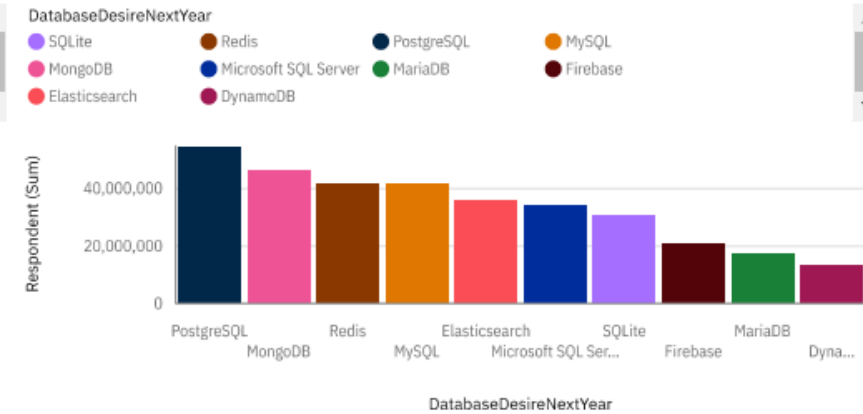
# DASHBOARD TAB 2

## Future Technology Trend

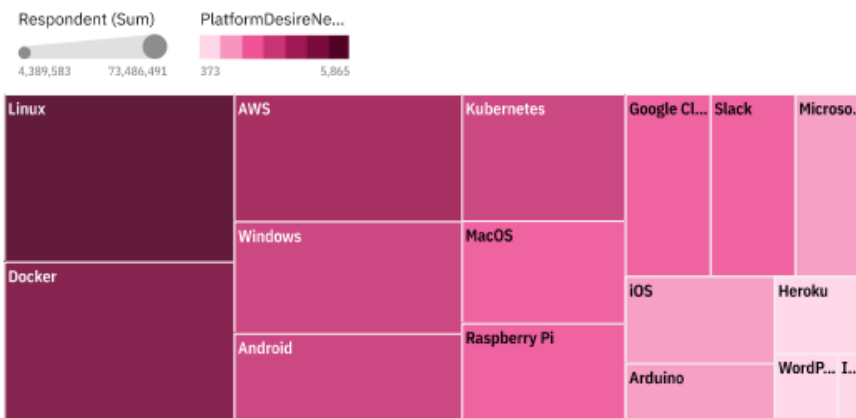
### Top 10 Programming Languages respondents want to learn next year



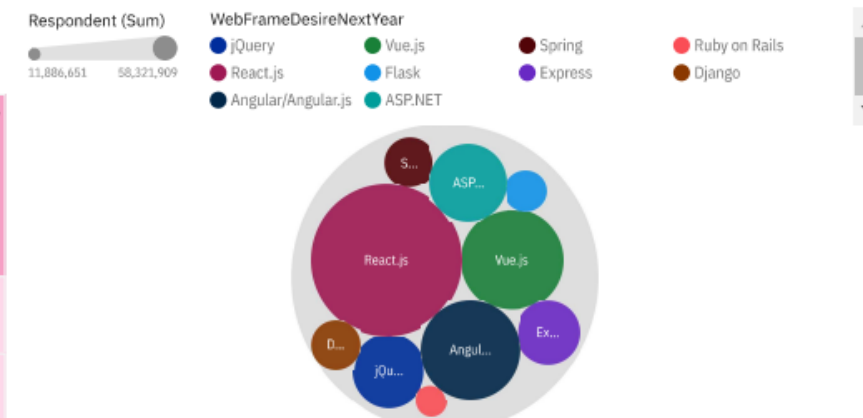
### Top 10 databases respondents want to learn next year



### Platforms respondents want to use next year



### Top 10 WebFrame respondents want to use next year

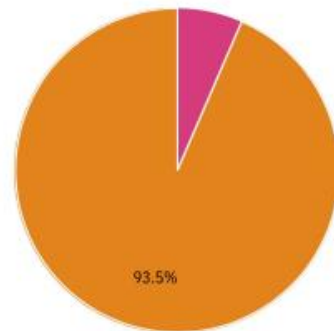


# DASHBOARD TAB 3

## Demographics

### Respondent classified by Gender

Gender  
● Woman ● Man

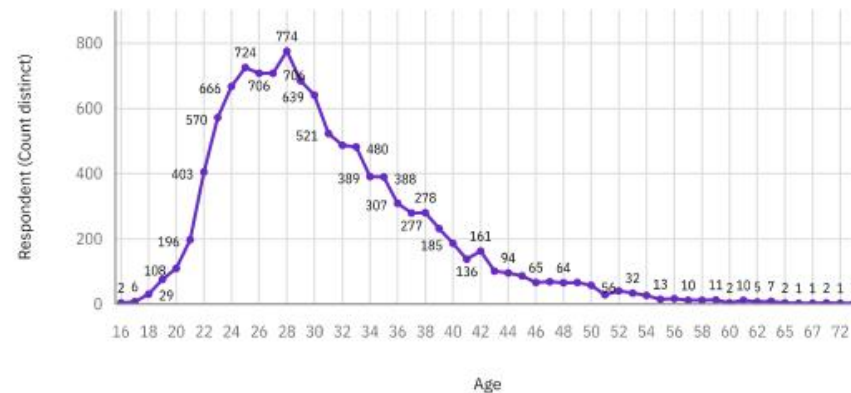


### Respondent Count for Countries

Respondent (Count)  
1 3,058

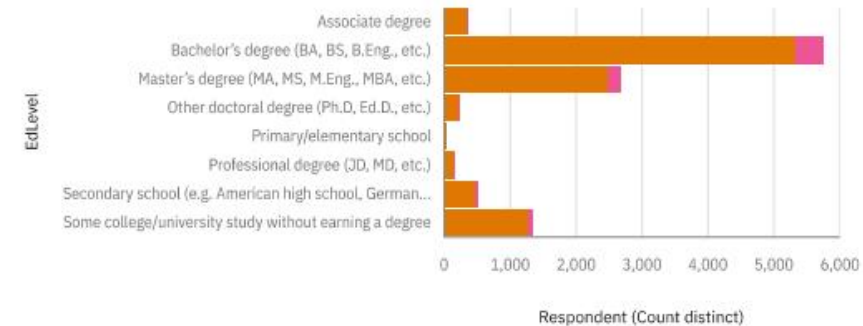


### Respondent Count by Age



### Respondent Count by Gender, classified by Formal Education Level

Gender  
● Man ● Woman



# Discussions - OVERALL FINDINGS & IMPLICATIONS

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## 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

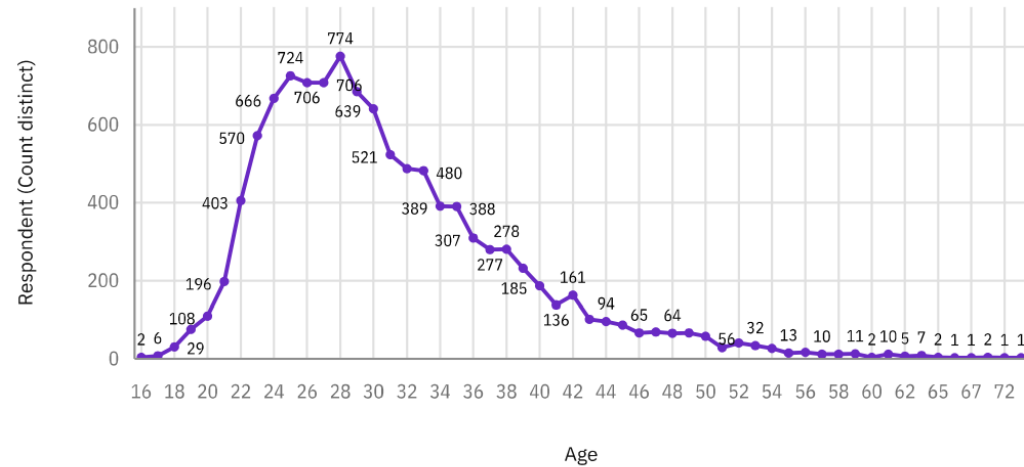
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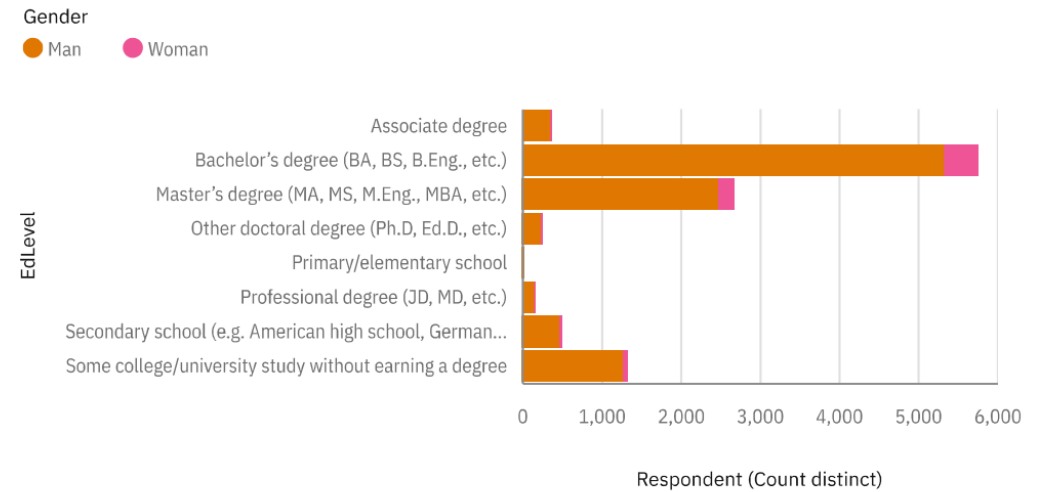
- No change in the trend for the most popular programming language JavaScript, and Python is gaining popularity over HTML/CSS.
- Database trend is changing towards PostgreSQL, MongoDB, and Redis.
- The top 4 platforms are apparently Windows, Linux, AWS, and Docker
- React.js is certainly becoming the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

# APPENDIX

Respondent Count by Age

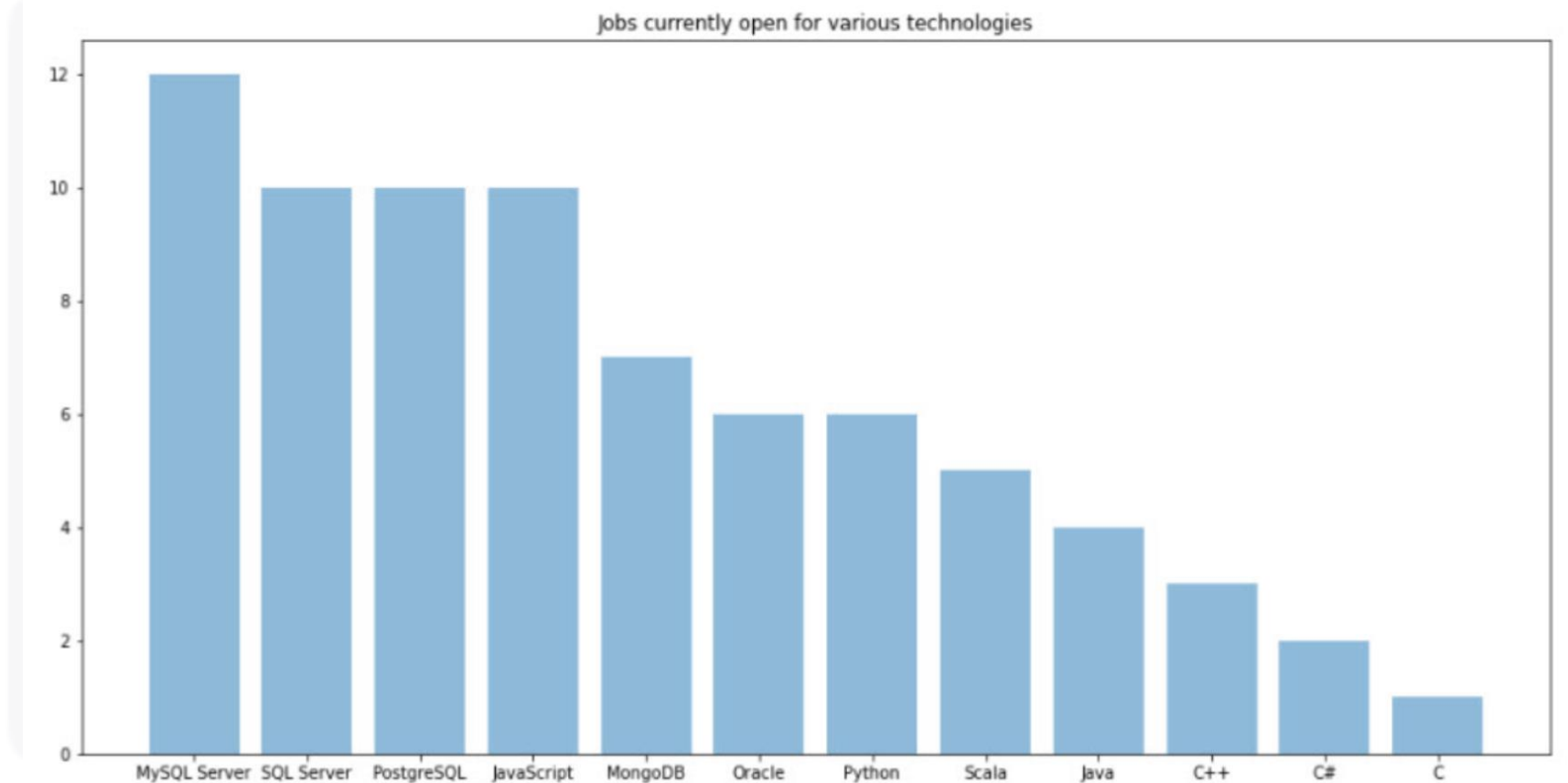


Respondent Count by Gender, classified by Formal Education Level



# JOB POSTINGS

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# POPULAR LANGUAGES

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