



# Analysis of Technology Trend Survey Data

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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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- This analysis used data collected from a Stack Overflow
- It shows trends in coding languages, platforms, and databases among tech workers
- It includes demographic analysis
- The survey shows gap among countries
- The survey shows significant gender gap in tech jobs

# INTRODUCTION

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- This analysis use Stack Overflow's annual Developer Survey which is one of the largest survey of IT worker
- It has over 90000 developers / IT workers
- This analysis shows trend of current and future demand of programming languages, databases, and platforms.
- It also shows gaps among countries, gender, age

# METHODOLOGY

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- Data Collection from Stack Overflow Survey
  - API
  - Web scraping
- Data Wrangling
- Exploratory Data Analysis
- Data Visualization
  - Matplotlib, Plotly, Seaborn, etc
  - Google Looker Studio

# RESULTS

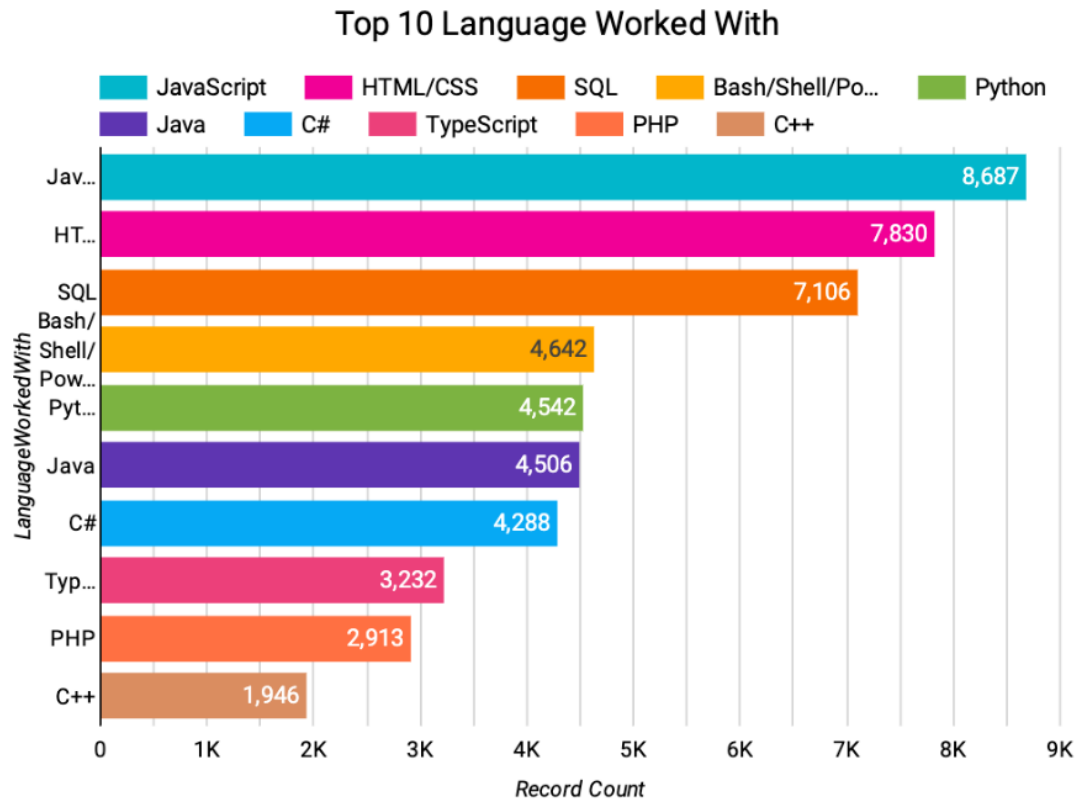
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[https://github.com/Evergreen-RX78/dashboard\\_project/blob/main/Capstone\\_Proejct\\_Dashboard.pdf](https://github.com/Evergreen-RX78/dashboard_project/blob/main/Capstone_Proejct_Dashboard.pdf)

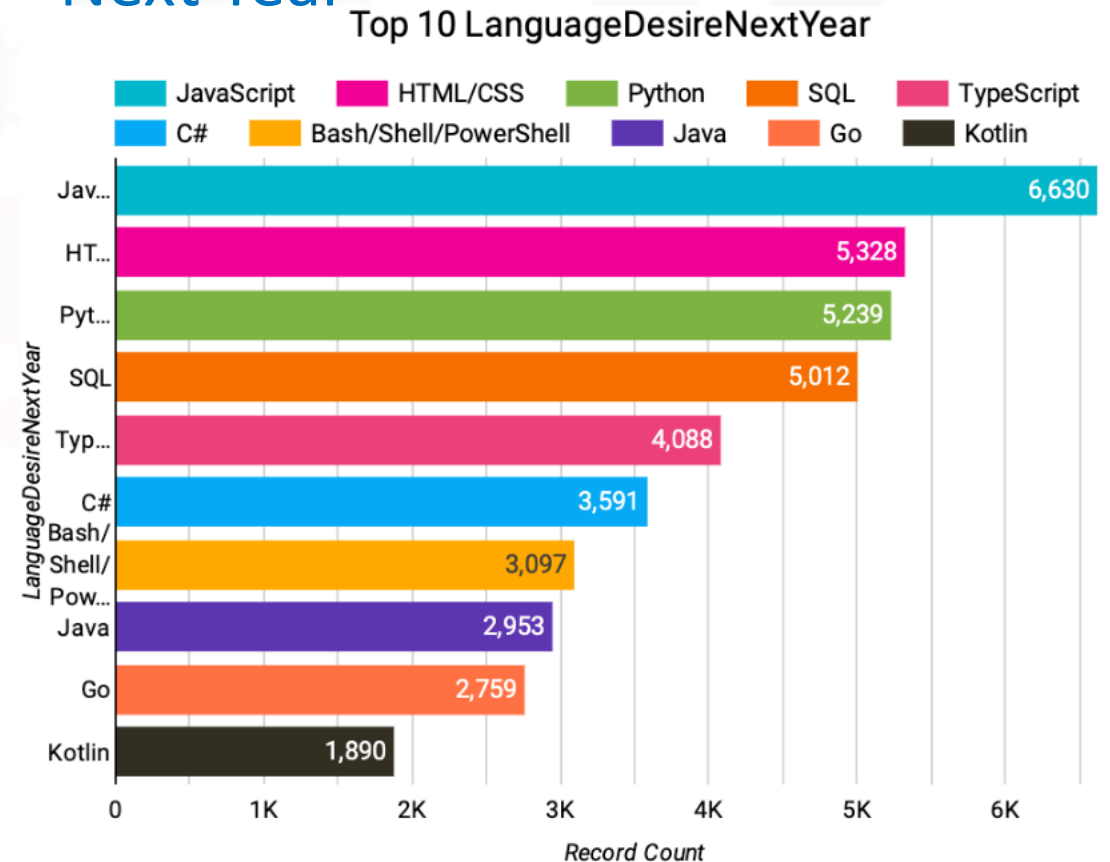


# PROGRAMMING LANGUAGE TRENDS

## Current Year



## Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is leading the game
- Python is also a popular and fast growing language

## Implications

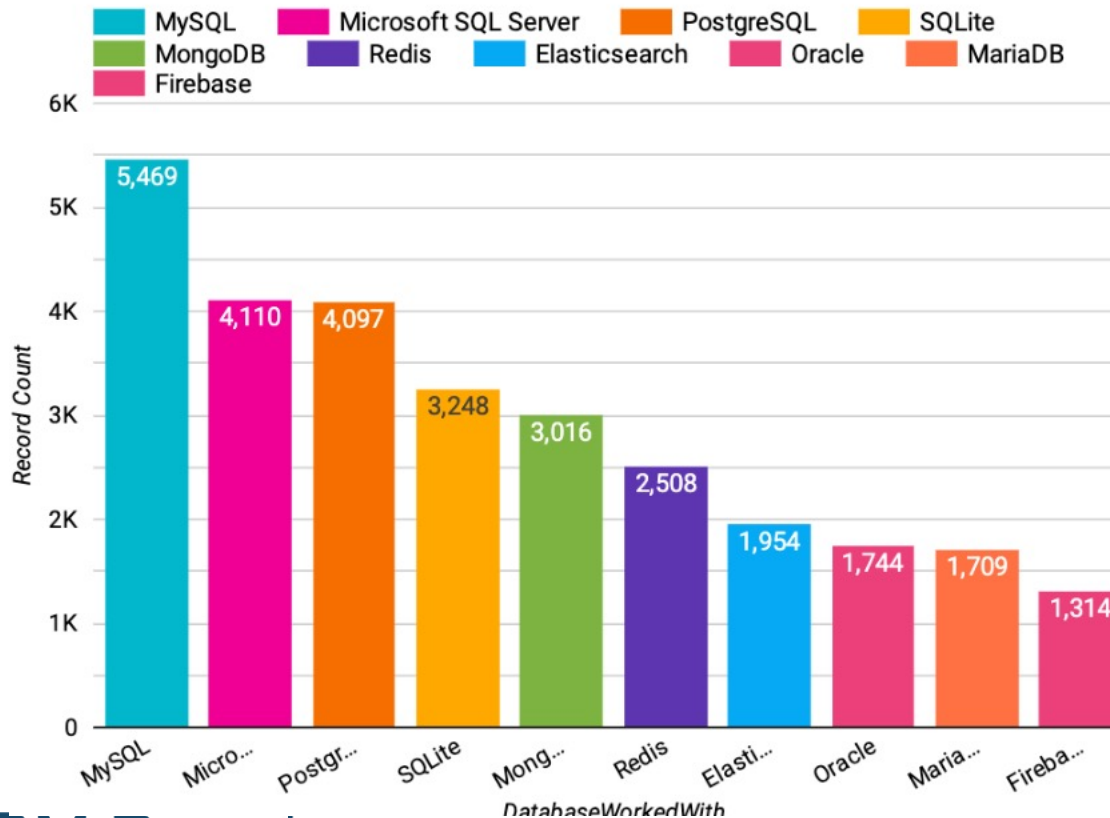
- Web Development is still the main demand in IT
- Many JS frameworks are popular making JS a leading language



# DATABASE TRENDS

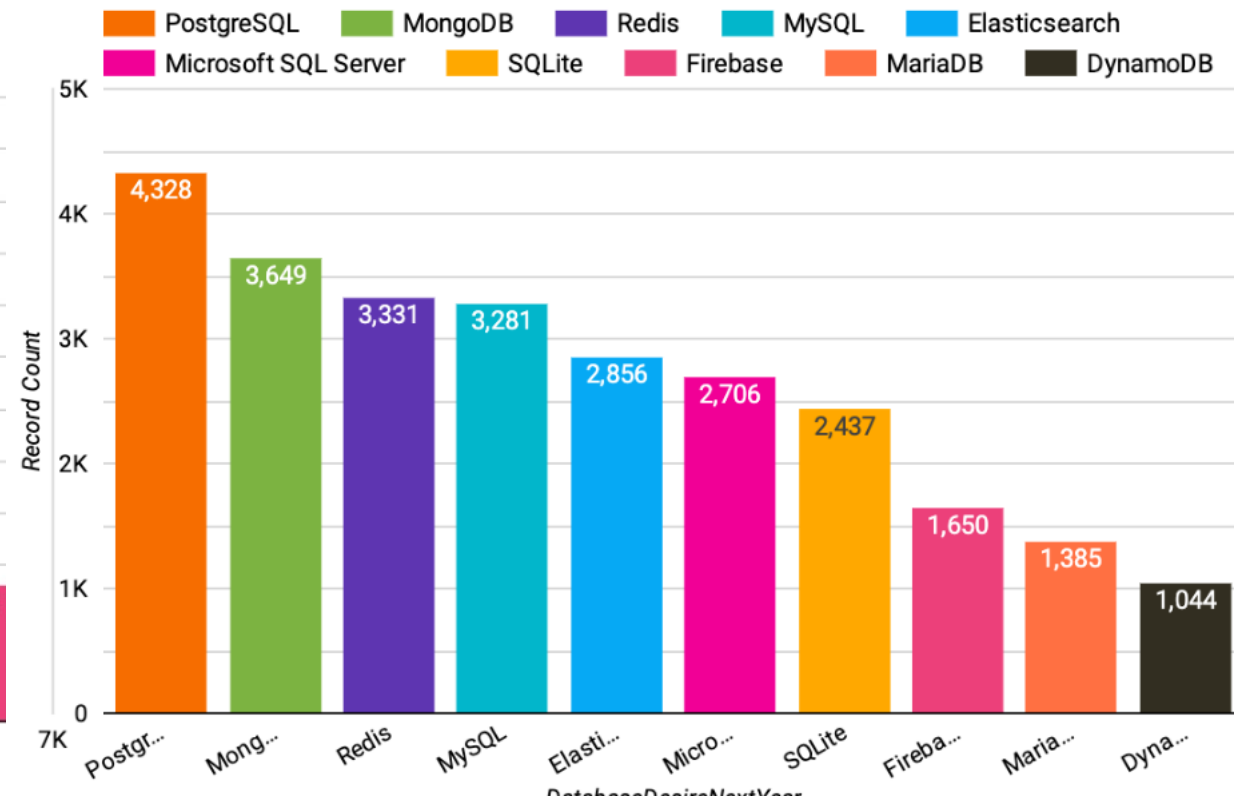
## Current Year

Top 10 Database Worked With



## Next Year

Top 10 Database Desire Next Year.



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL, PostgreSQL, SQL server, MongoDB are all commonly used
- NoSQL database like MongoDB are becoming more popular

## Implications

- SQL still dominate the market
- Company prefer to switch open source and NoSQL database

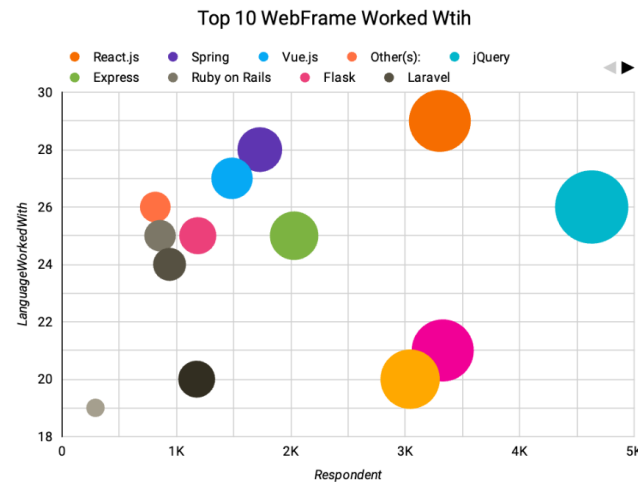
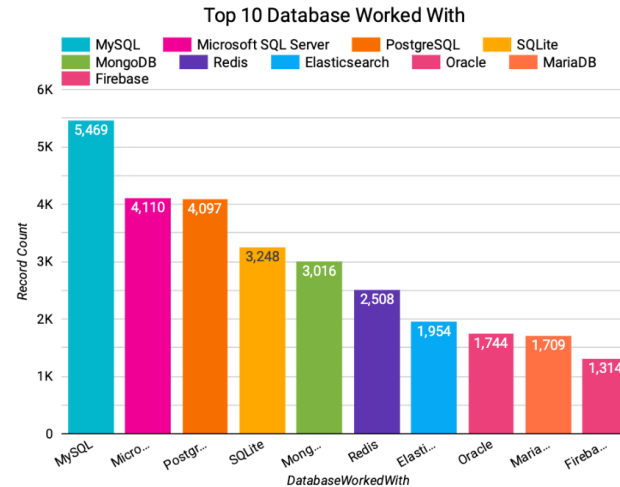
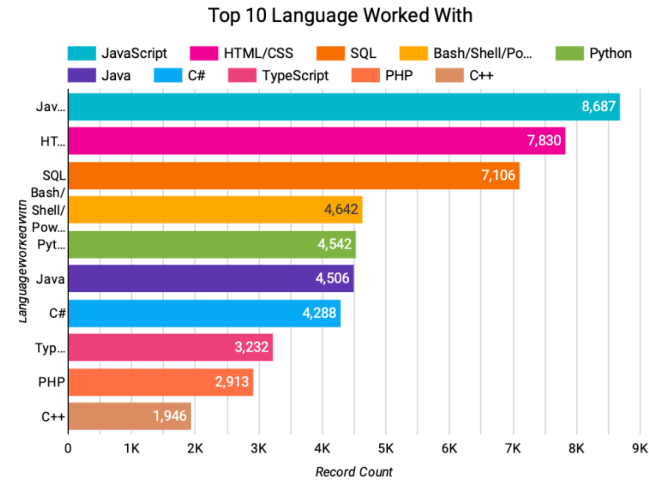
# DASHBOARD

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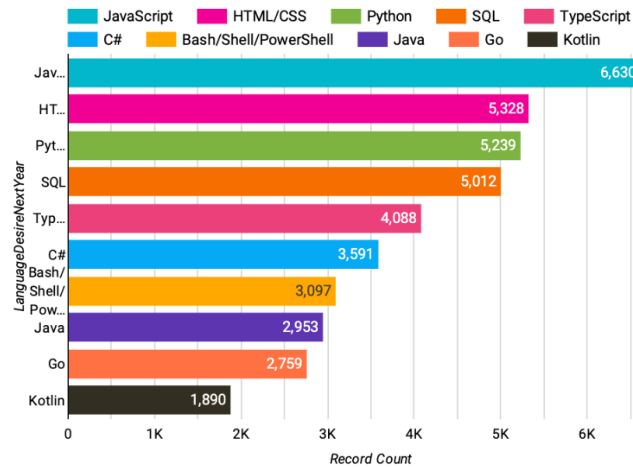
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# DASHBOARD TAB 1

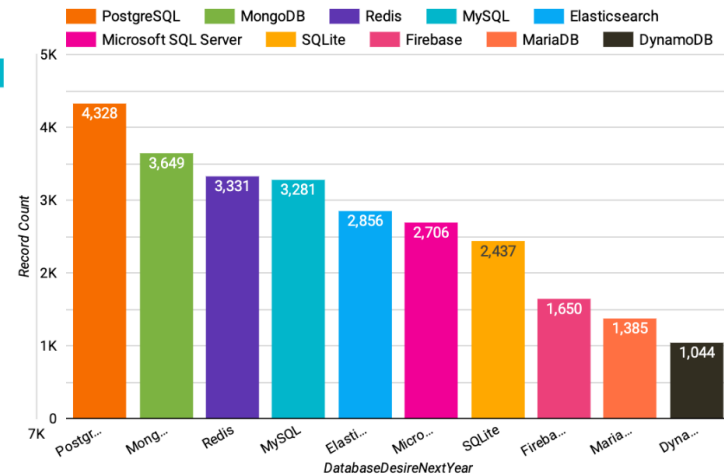


# DASHBOARD TAB 2

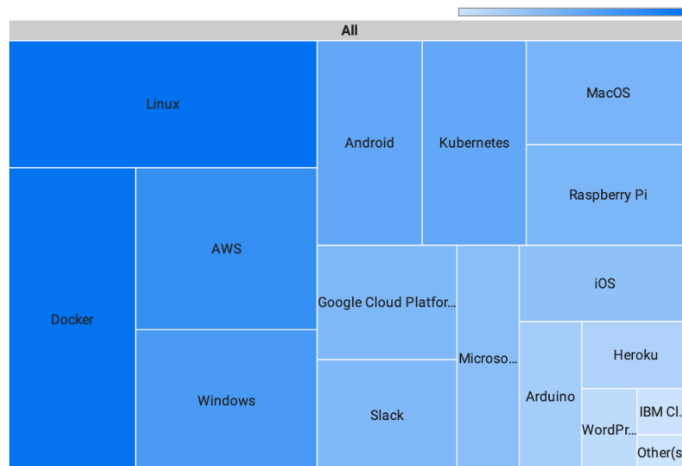
Top 10 Language Desire Next Year



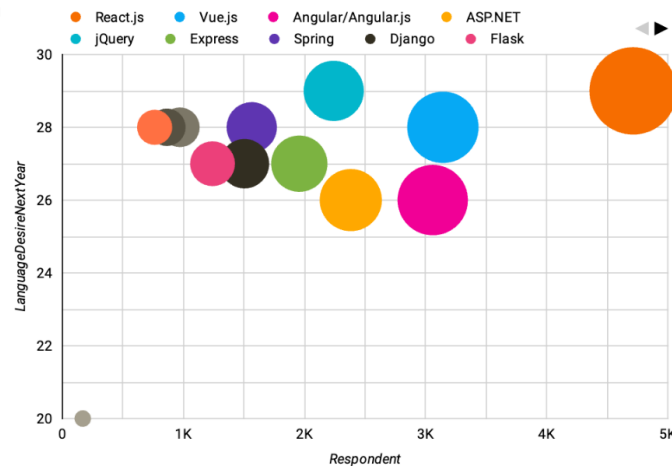
Top 10 Database Desire Next Year.



Platform Desire Next Year

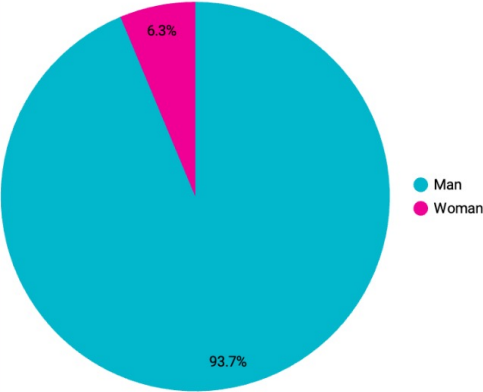


Top 10 Web Frame Desire Next Year

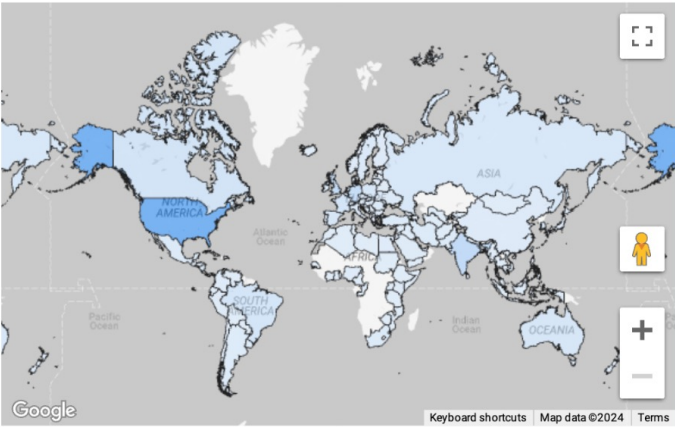


# DASHBOARD TAB 3

Respondent classified by Gender

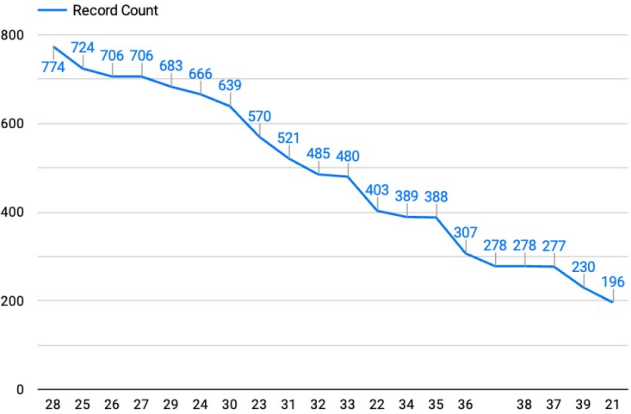


Respondent Count for Countries

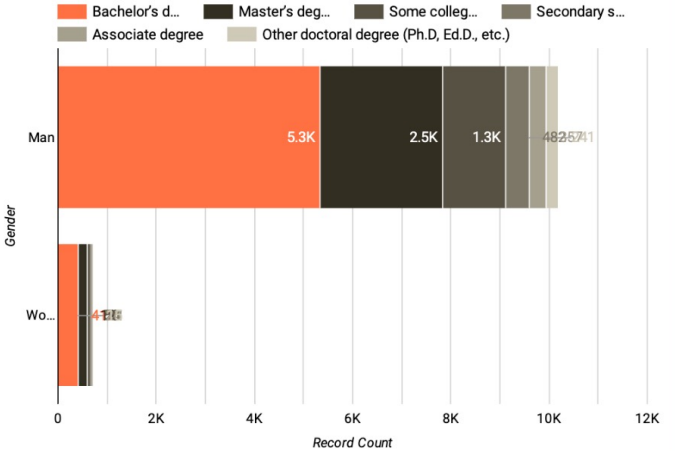


Respondent 865 38,170,293

Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



# DISCUSSION

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# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Most people work in IT are male
- Many tech worker has a bachelor degree or above
- The number of IT workers decline as age increase
- SQL and React are becoming popular

## Implications

- Female and less developed countries need more access to IT related job
- Web dev is a hot demand



# CONCLUSION

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- There are gender gap for tech job
- It shows a clear trend of different platform, database, languages used
- There are also gap among population in different country
- We need to work on the accessibility of tech labor market

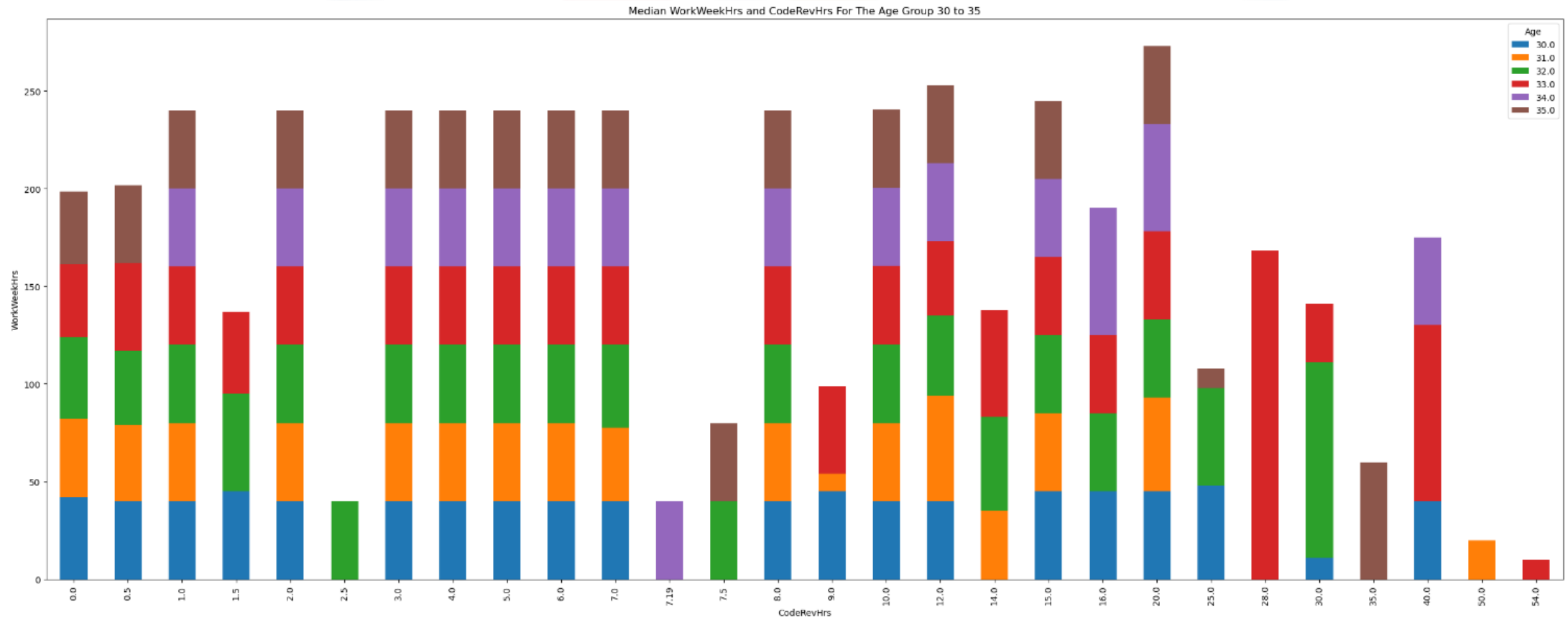
# APPENDIX

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- Include any relevant additional charts, or tables that you may have created during the analysis phase.

# JOB POSTINGS



# POPULAR LANGUAGES

