

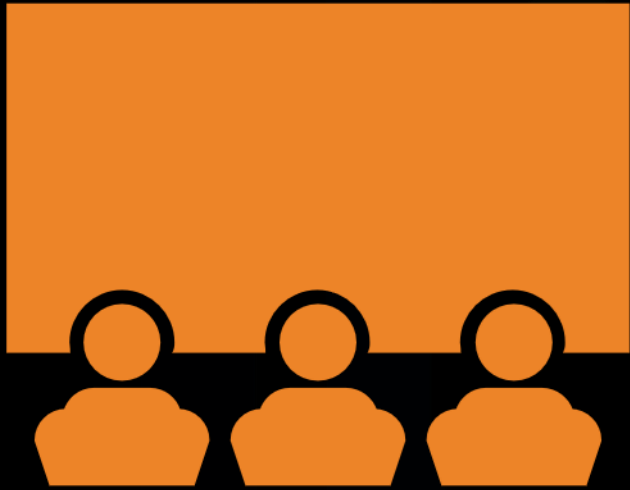


# TECHNOLOGY TRENDS & ANALYSIS

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# OUTLINE



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

# EXECUTIVE SUMMARY



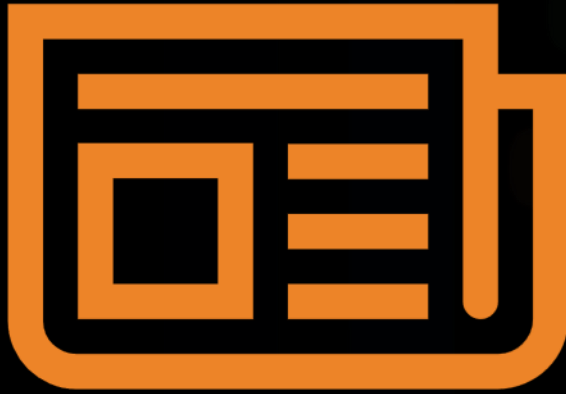
- Trends in programming languages and databases
- Surveys:
  - Current Trends
  - Future Trends
  - Demographics
- Technology gap in countries
- Gender gap in jobs
- Age gap in jobs

# INTRODUCTION



- About:
  - Analyzed the trends in software development
- Purpose:
  - Identify future skill requirements for jobs
  - Top programming languages in demand
  - Top database skills in demand
  - Identifying popular IDEs

# METHODOLOGY



- Data Collection Sources:
  - Stack Overflow Developer 2019 Survey
  - GitHub Job Postings
  - Programming Languages Annual Salary
- Data Exploration
- Data Cleaning
- Data Visualization
- Presentation

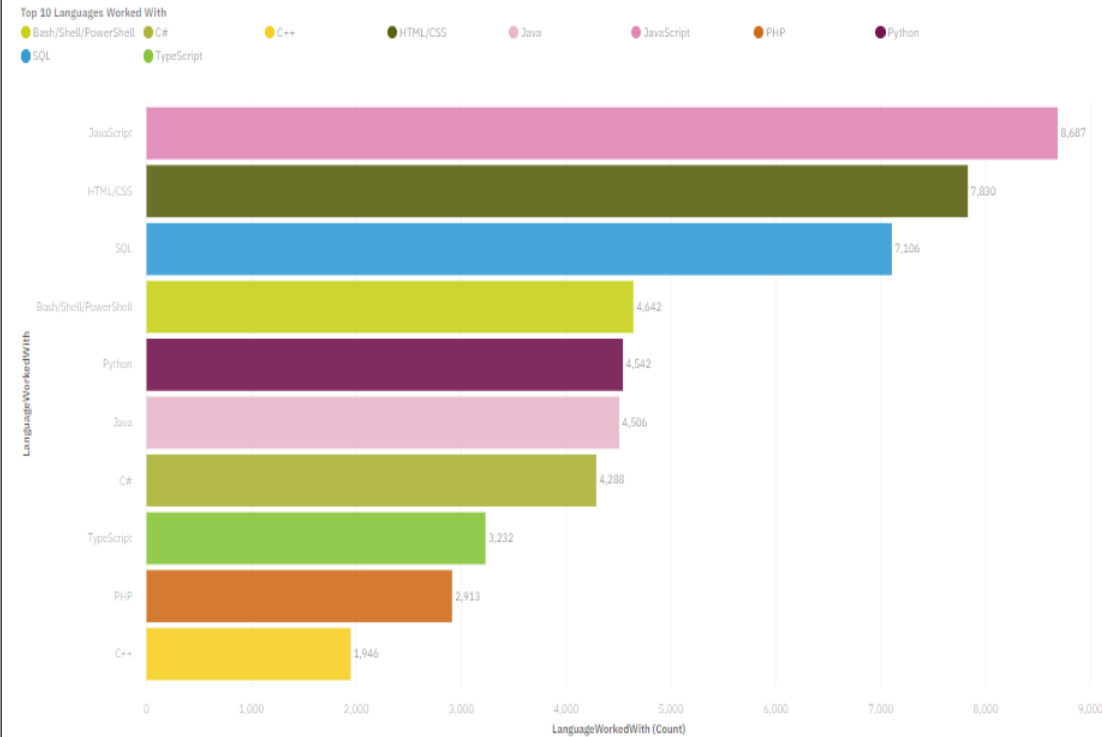
# RESULTS

Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear
25,142	Bash/Shell/PowerShell	Bash/Shell/PowerShell	PostgreSQL	PostgreSQL
25,141	Bash/Shell/PowerShell	C++	Microsoft SQL Server	Elasticsearch
25,141	C++	C#	Redis	MongoDB
25,137	HTML/CSS	HTML/CSS	MySQL	MariaDB
25,136	C#	C#	Microsoft SQL Server	Microsoft SQL Server
25,134	Bash/Shell/PowerShell	F#	Microsoft SQL Server	Couchbase
25,134	C#	R	PostgreSQL	MariaDB
25,134	C++	Java	MySQL	Firebase
25,134	HTML/CSS	TypeScript	SQLite	MongoDB
25,133	C	C	MongoDB	MongoDB
25,133	HTML/CSS	Java	Oracle	Microsoft SQL Server
25,128	C	C	SQLite	SQLite
25,125	Java	Java	Couchbase	Couchbase
25,124	C#	C#	Firebase	Microsoft SQL Server
25,124	HTML/CSS	HTML/CSS	MongoDB	MySQL
25,124	Java	JavaScript	Microsoft SQL Server	SQLite
25,123	Bash/Shell/PowerShell	Bash/Shell/PowerShell	Firebase	Firebase

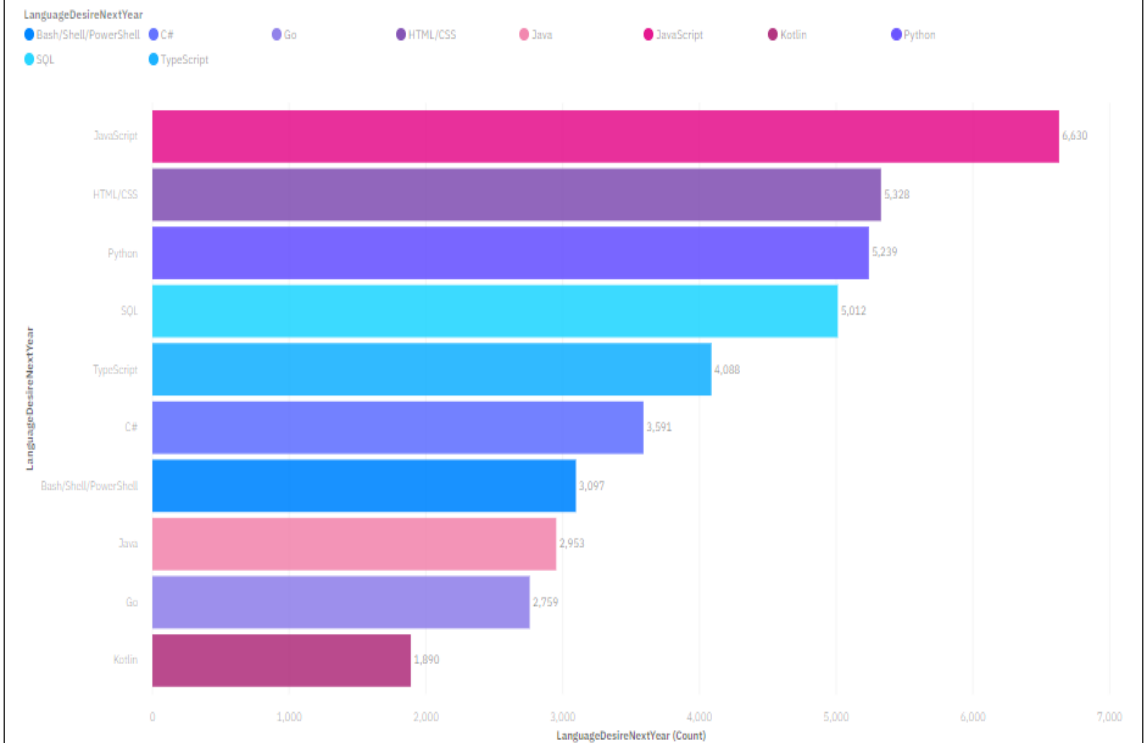


# PROGRAMMING LANGUAGE

Top 10 Languages Worked With



Top 10 Desired Languages Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

## Findings

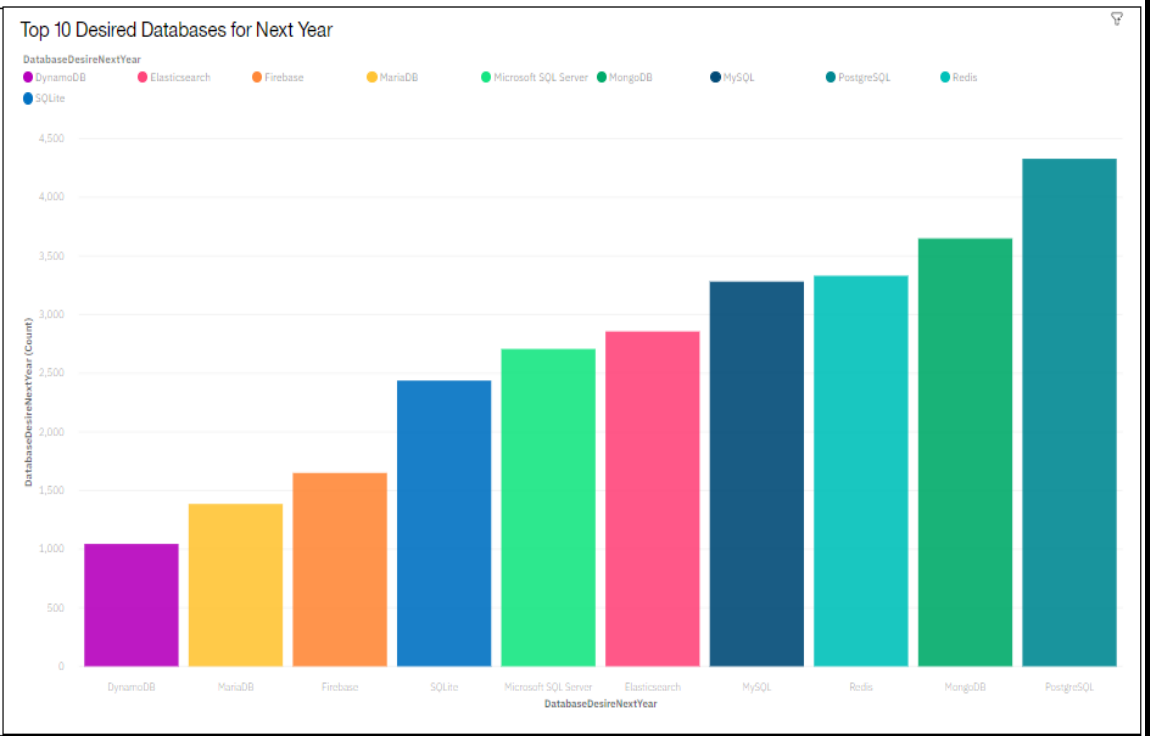
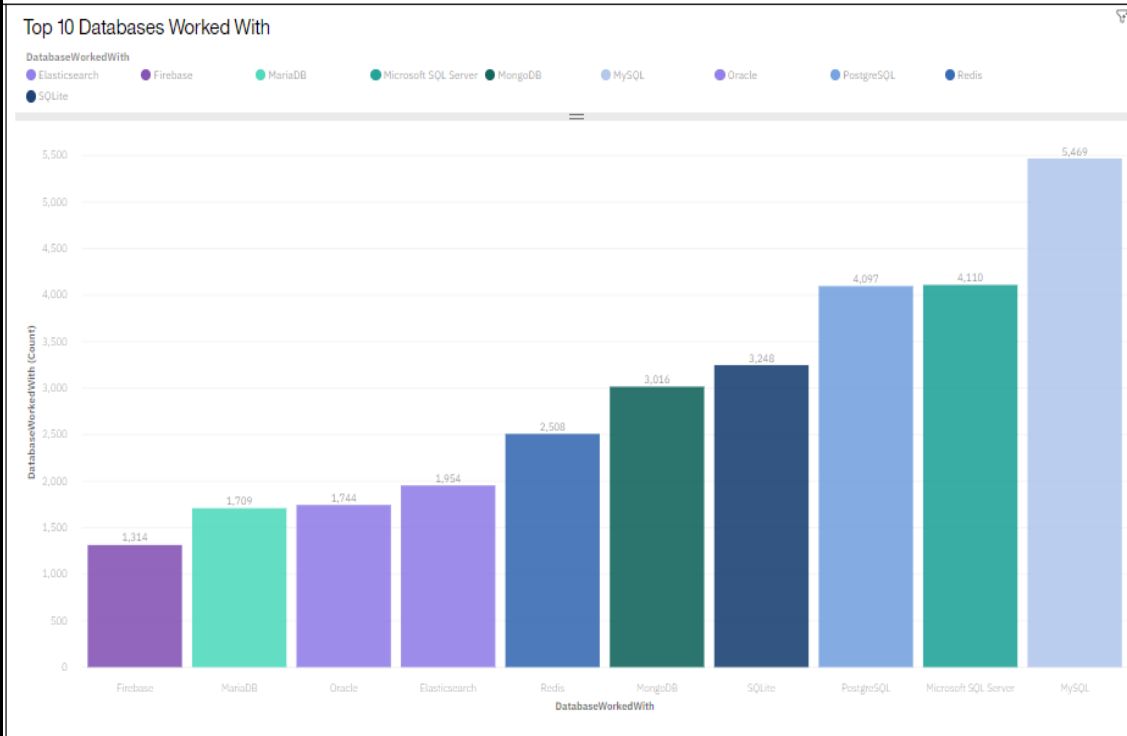
- Javascript, HTML/CSS, and SQL are top 3 this year
- Python and Typescript on the rise for next year
- PowerShell not as big in demand for next year

## Implications

- Web Development is still in high demand
- Big Data tech in companies still require SQL
- Python is best choice for MachineLearning and AI development



# DATABASE TRENDS



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- MySQL is the most popular
- MongoDB and Redis are upcoming
- Elasticsearch is upcoming
- PostgreSQL is most desired next year

## Implications

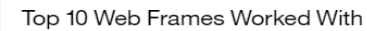
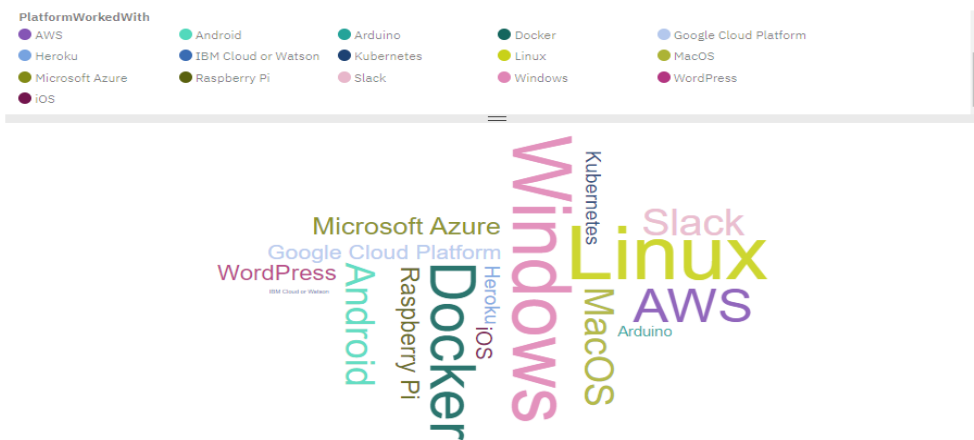
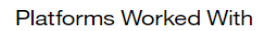
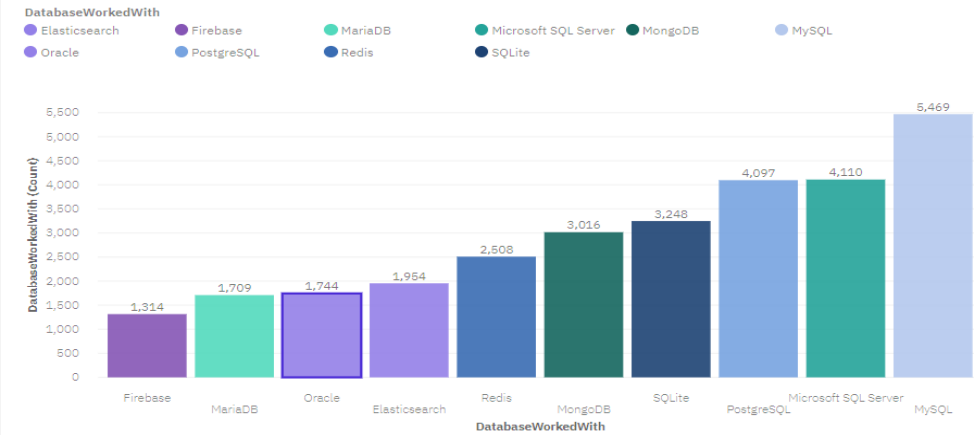
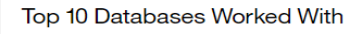
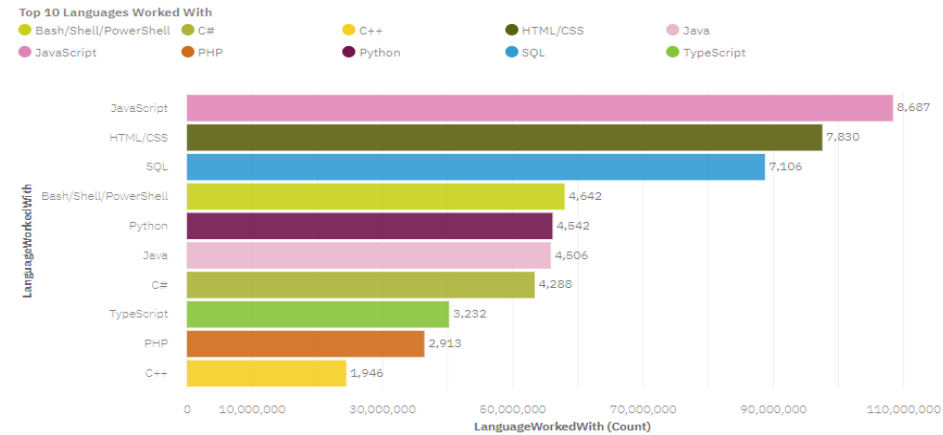
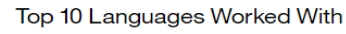
- Pre-tuned searches to website, app, and ecommerce
- Open source databases are still preferred
- NoSQL databases impacting storage for non-relational data

# DASHBOARD



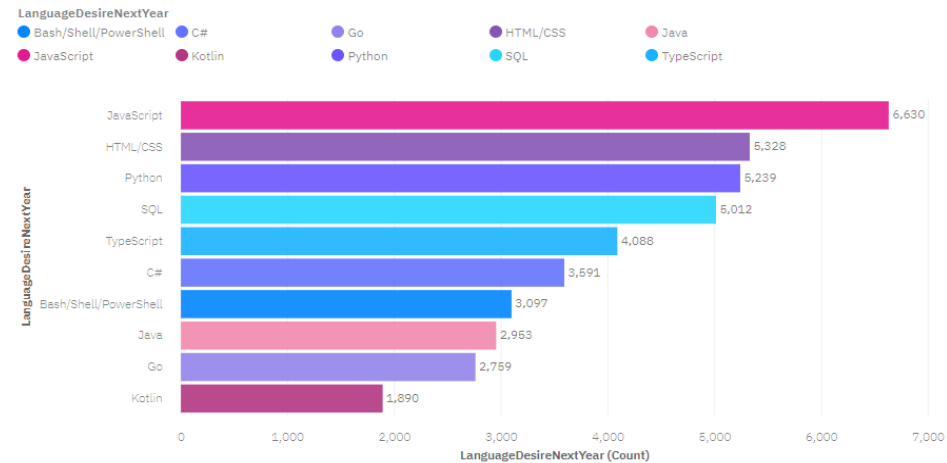
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# DASHBOARD TAB 1

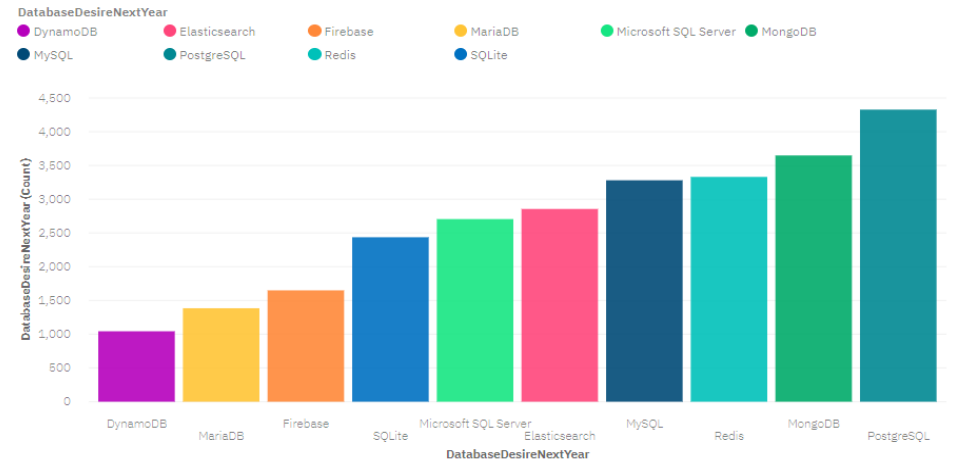


# DASHBOARD TAB 2

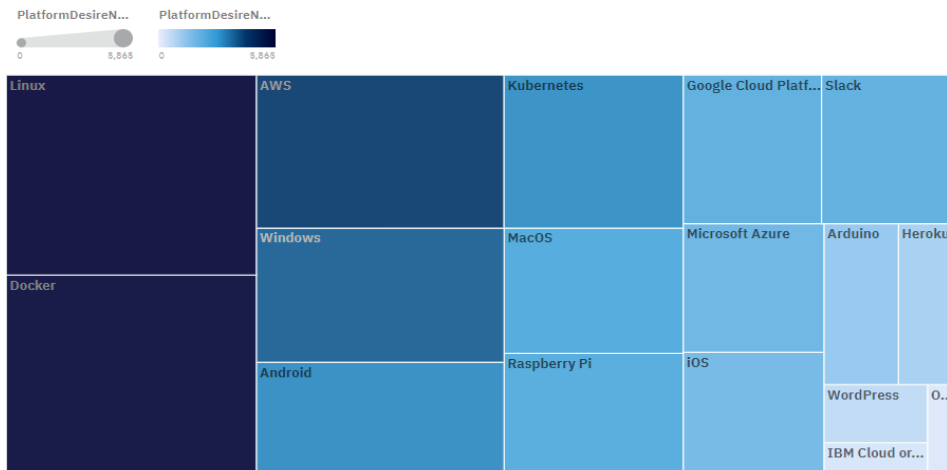
## Top 10 Desired Languages Next Year



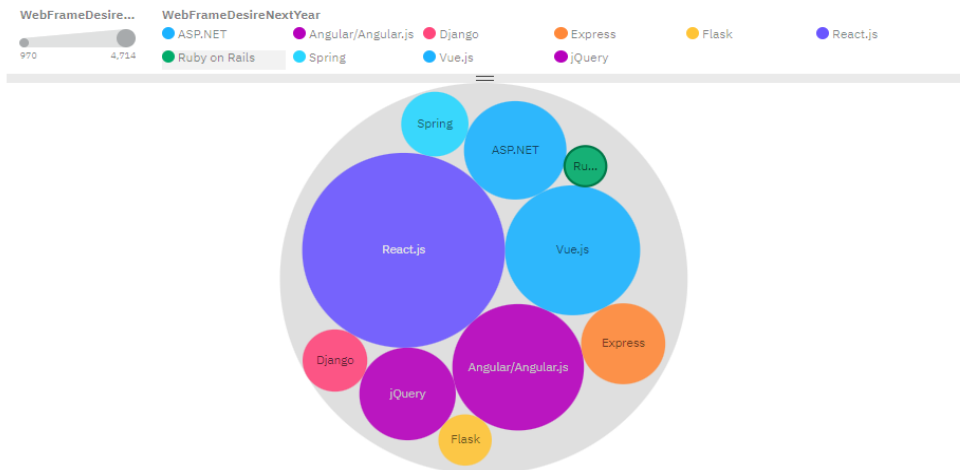
## Top 10 Desired Databases for Next Year



## Platforms Desired for Next Year



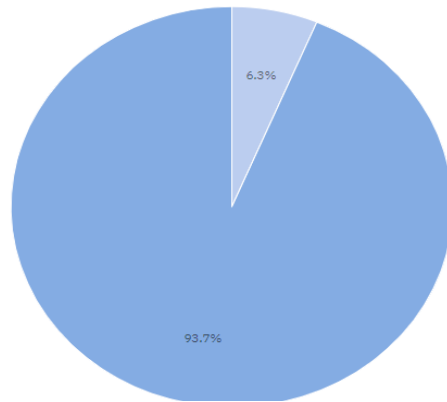
## Top 10 WebFrames Desired for Next Year



# DASHBOARD TAB 3

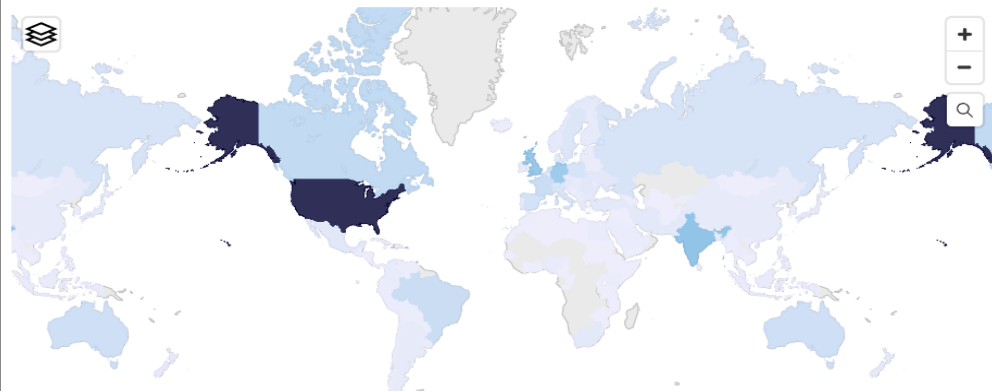
Percentage of Respondents by Gender

Gender  
● Woman ● Man

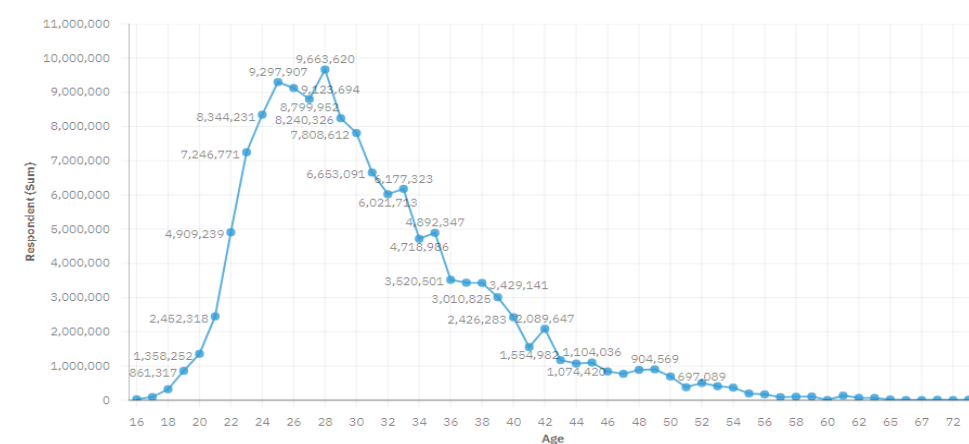


Location of Respondents

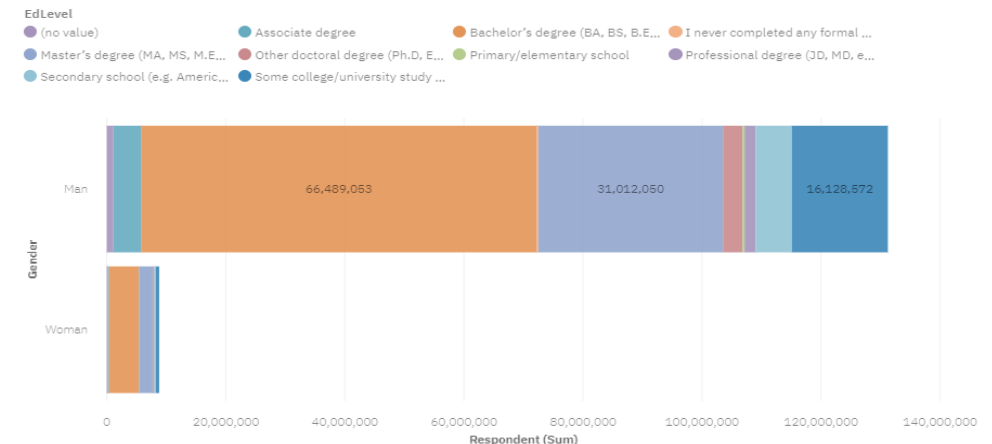
Respondent (Sum)  
865 88,170,293



Respondent Count by Age



Respondent Count by Gender and Formal Education





# DISCUSSION



- Male majority in the technology field
- Age and education discrimination in employment
- Training and new skills for workers
- Technology Trends present and future
- Technology gaps worldwide

# OVERALL FINDINGS & IMPLICATIONS

## Findings

- Rapid changing technology each year
- Gender gap in tech
- Technological concentration on more developed countries
- Platforms such as AWS and Slack are growing

## Implications

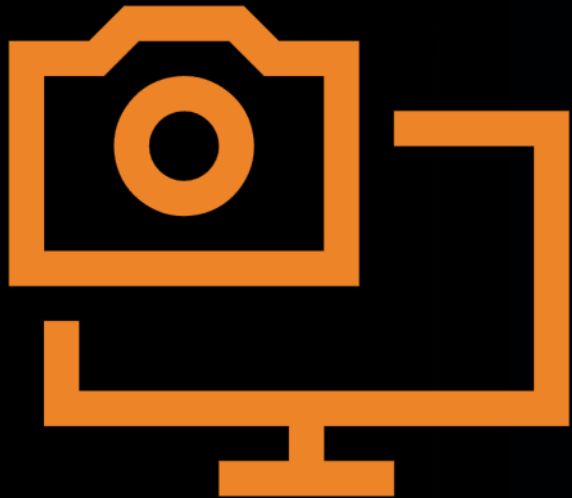
- Companies need to stay flexible and adjust
- Impact of hiring
- Faster app and cloud services in the future
- Tech to be spread out in less developed countries

# CONCLUSION

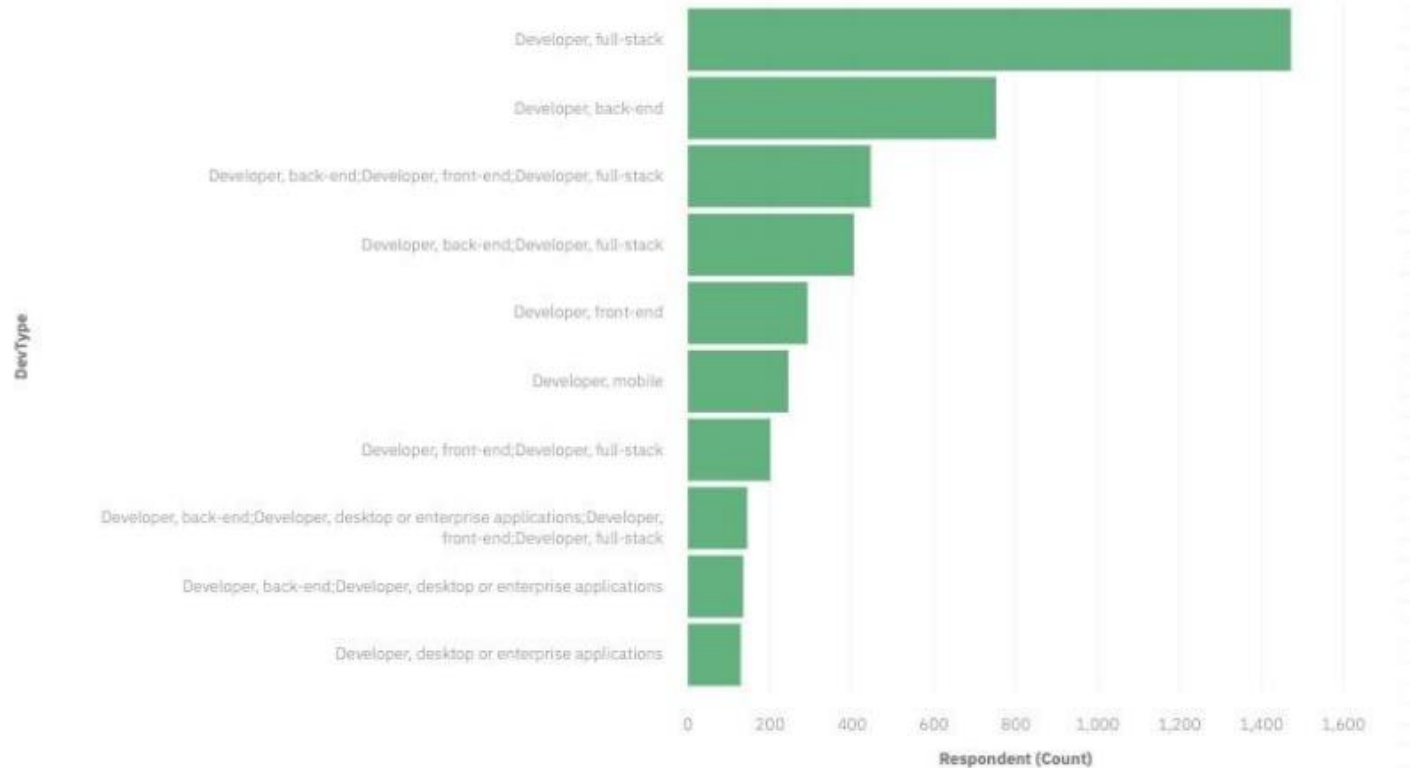
- Technology Trends for current and next year
- Programming Languages, Databases and Platforms overview
- Demographics overview
- Actions needed
- Incorporate ML to predict trends and salaries



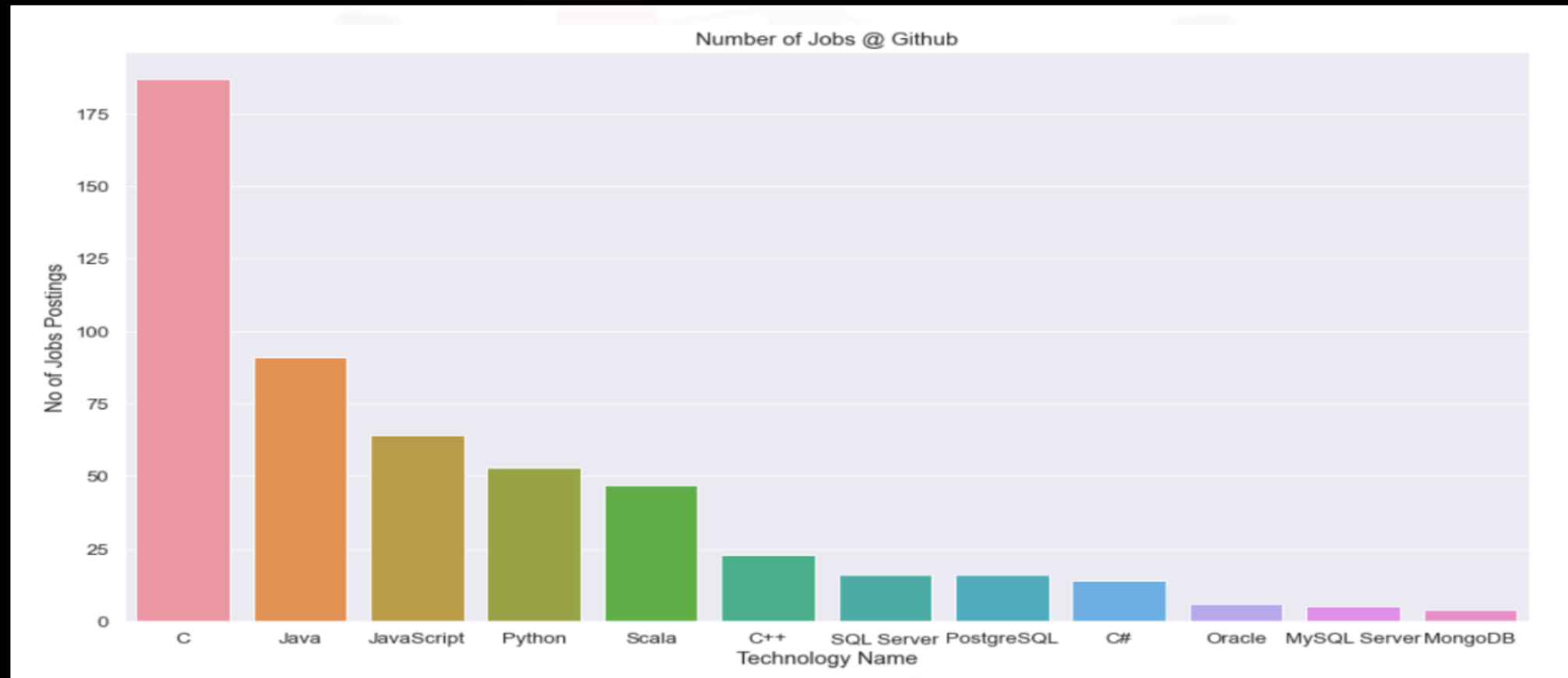
# APPENDIX



Total Respondent Based on Developer Type



# JOB POSTINGS



# POPULAR LANGUAGES

