



# TECHNOLOGY TREND ANALYSIS

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# OUTLINE



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

# EXECUTIVE SUMMARY



- Current Technology Usage
  - Programming Language
  - Database
  - Platform
  - Web Framework
- Future Technology Trend
  - Language
  - Database
  - Platform
  - Web Framework
- Demographics Survey
- Gender and Age Gaps

# INTRODUCTION



- Analyzing Technology Trend of Developers around the World in 2019.
- Identifying Future Skill Requirements.
- What are the top programming in demand?
- What are the Top Database Skills in demand?
- What are the most popular IDEs?
- Audience:
  - Programmers
  - IT Industry

# METHODOLOGY



- Data Collection Sources:
  - Stack Overflow Developer 2019 Survey
  - Programming Languages Annual Salary
  - GitHub Job Posting
- Data Exploration and Cleaning
  - Python
- Data Visualization
  - IBM Cognos Analysis
- Presentations



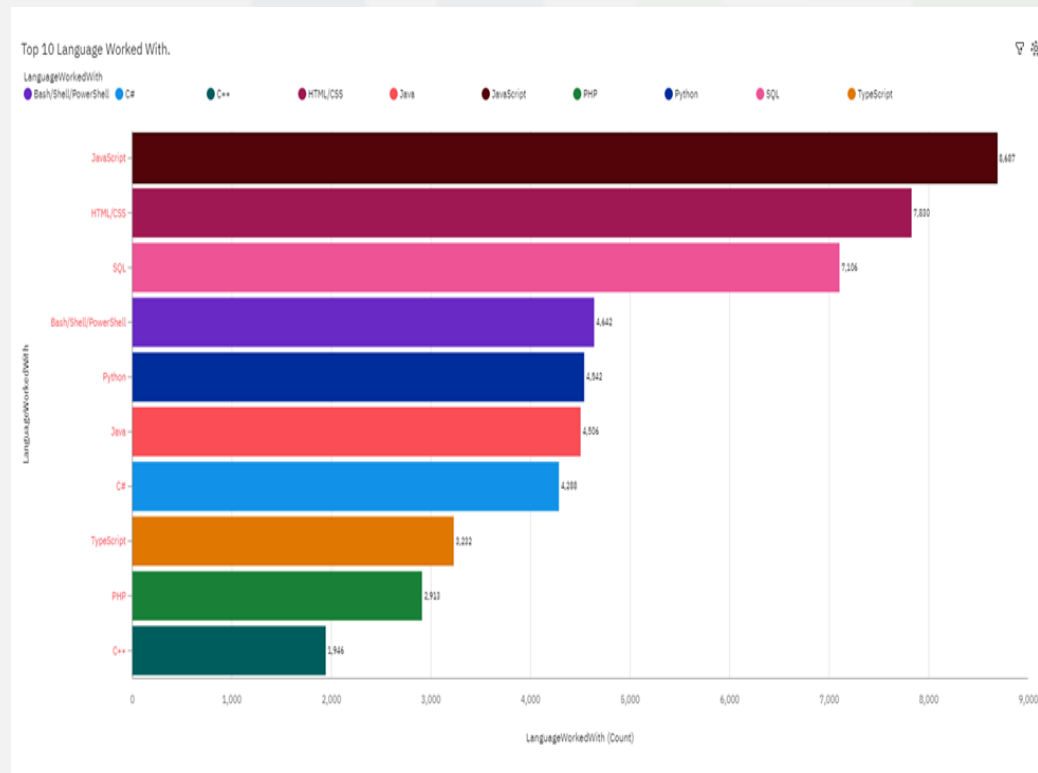
# RESULTS

# DATA TECHNOLOGY SURVEY TABLE

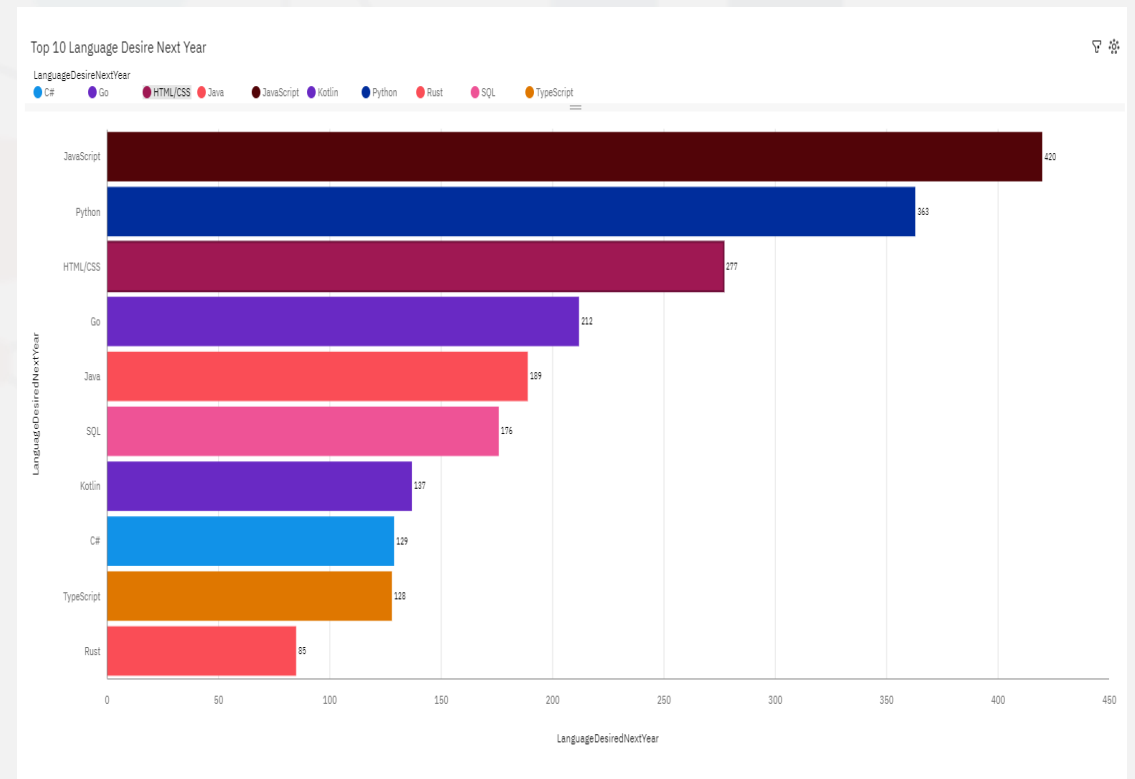
	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear	PlatformWorkedWith
0	4	C	C	MySQL	MySQL	Linux
1	4	C++	C#	SQLite	SQLite	Windows
2	4	C#	JavaScript	NaN	NaN	NaN
3	4	Python	SQL	NaN	NaN	NaN
4	4	SQL	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...
74584	25142	Go	Python	NaN	NaN	NaN
74585	25142	HTML/CSS	R	NaN	NaN	NaN
74586	25142	PHP	NaN	NaN	NaN	NaN
74587	25142	Python	NaN	NaN	NaN	NaN
74588	25142	R	NaN	NaN	NaN	NaN

# PROGRAMMING LANGUAGE TRENDS

## Current Year



## Next Year





# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

## Findings

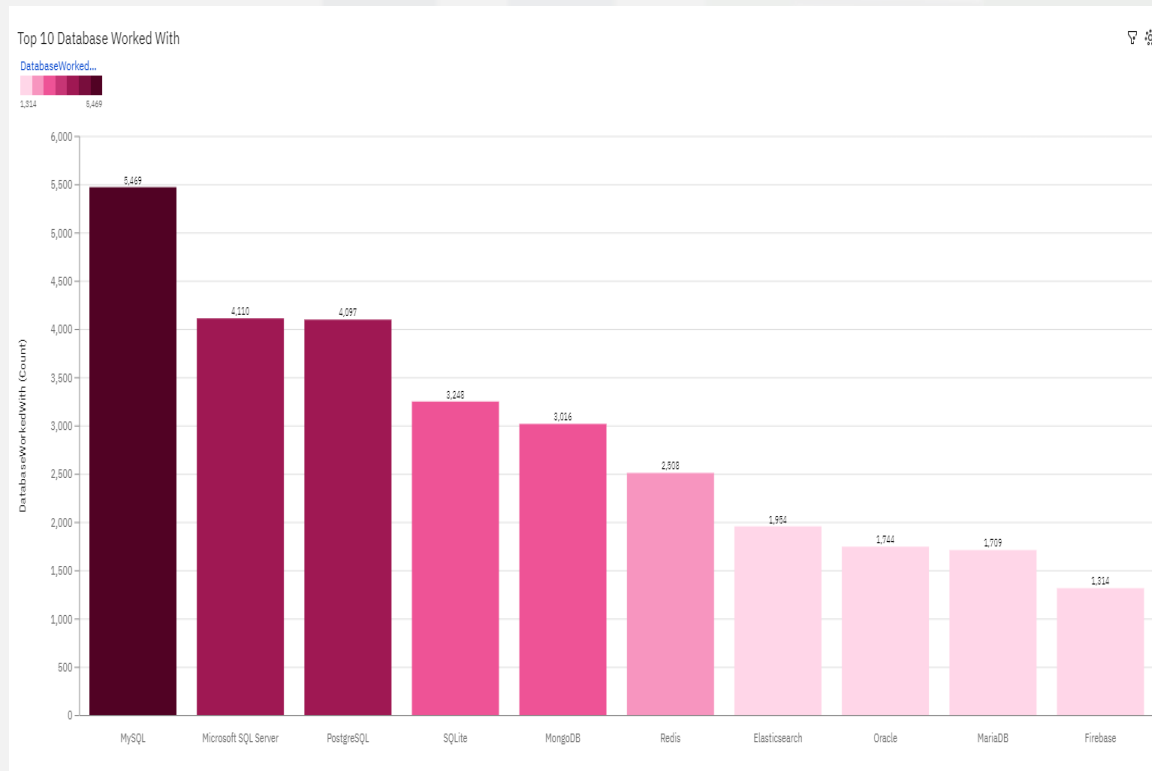
- JavaScript, HTML/CSS, and SQL are the top trending in the world
- JavaScript, Python, and HTML/CSS are becoming more and more popular

## Implications

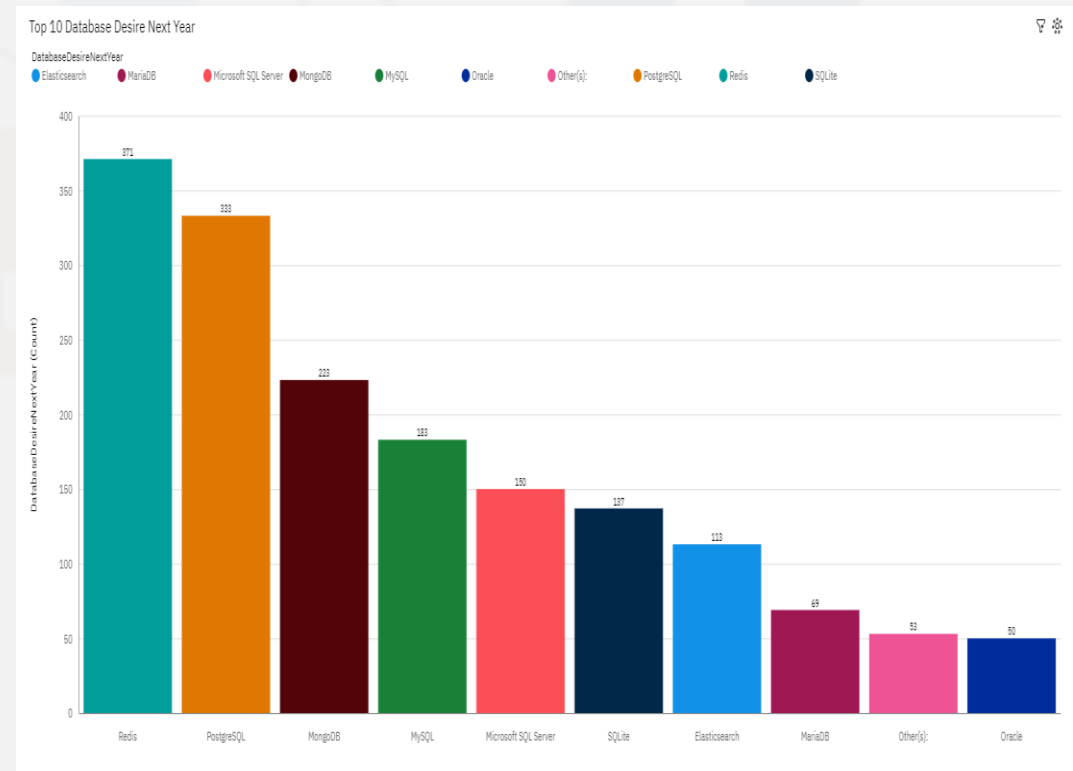
- Web developments are still in high demand
- JavaScript and Python are crucial to learn for developers

# DATABASE TRENDS

## Current Year



## Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- MySQL is the most popular Database behind Microsoft SQL server
- Redis and PostgreSQL are the upcoming favorites.
- Skills in Redis and Elasticsearch are most desirable than Microsoft SQL server

## Implications

- Open-source databases like MySQL are still preferable
- PostgreSQL and MongoDB are the most consistent in demand

# DASHBOARD

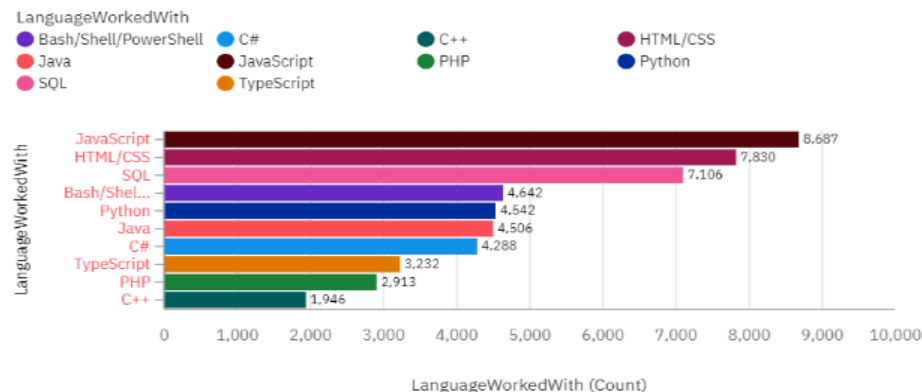


<https://github.com/Romhaikb/Capstone-project/blob/main/Part%20A%20-%20Building%20A%20Dashboard%20With%20IBM%20Cognos%20Analytics.pdf>

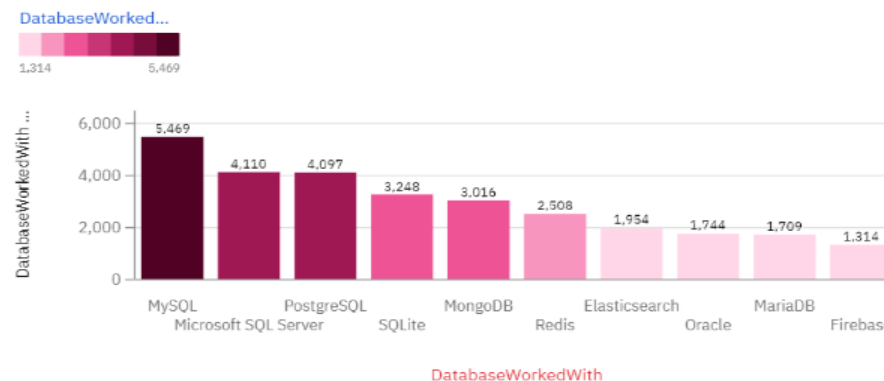
# CURRENT TECHNOLOGY USAGE

## Current Technology Usage

### Top 10 Language Worked With.



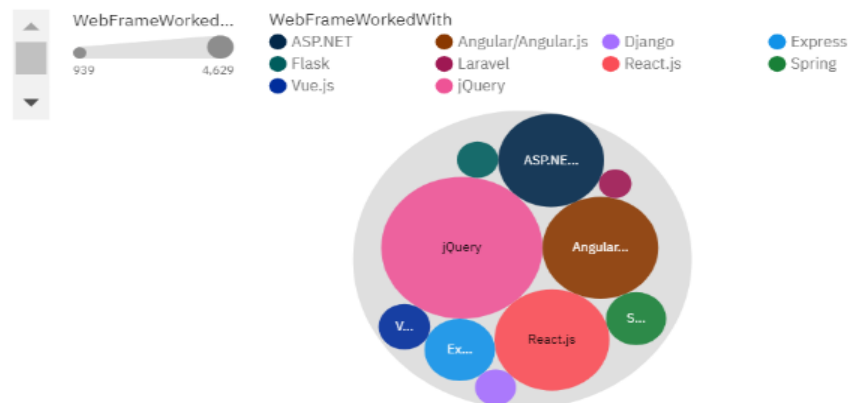
### Top 10 Database Worked With



### Platform Worked With



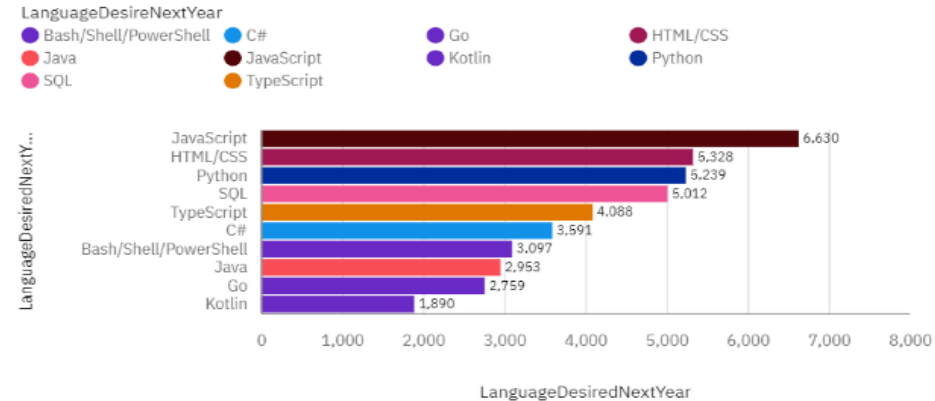
### Top 10 WebFrame Worked With



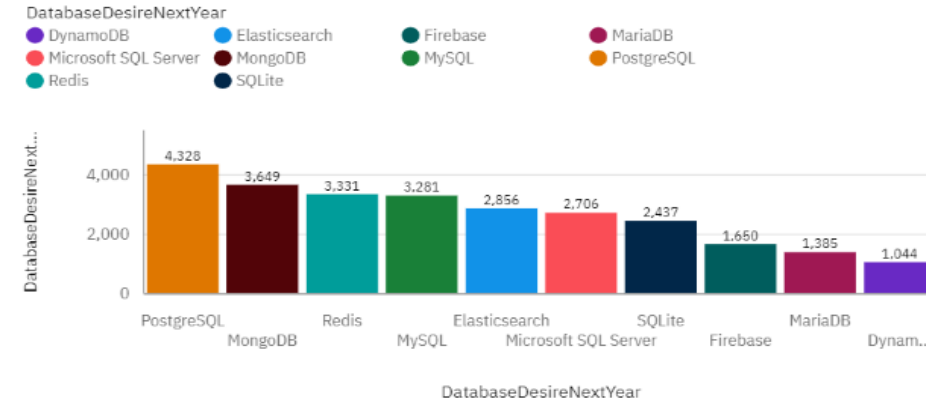
# FUTURE TECHNOLOGY TREND

## Future Technology Trend

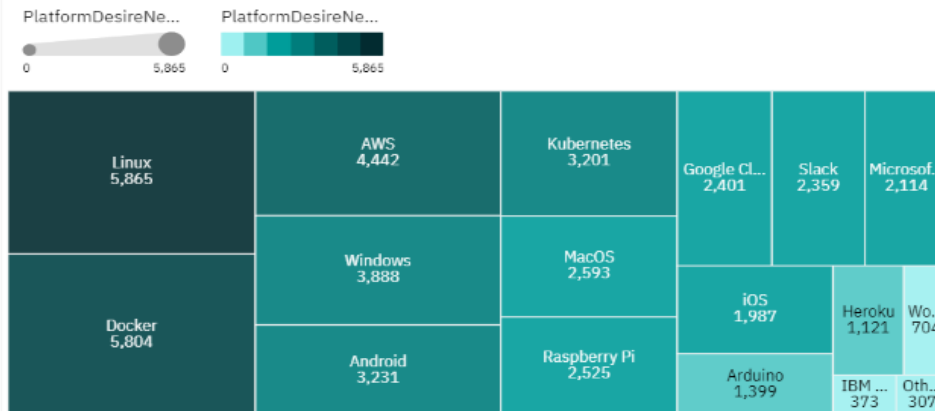
### Top 10 Language Desire Next Year



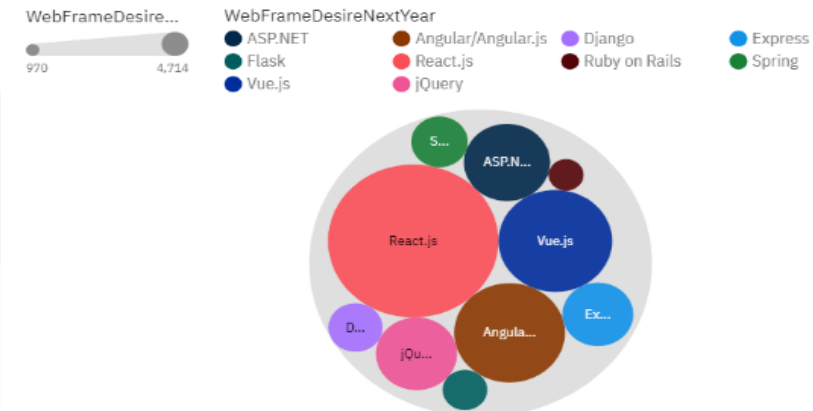
### Top 10 Database Desire Next Year



### Platform Desire Next Year



### Top 10 WebFrame Desire Next Year

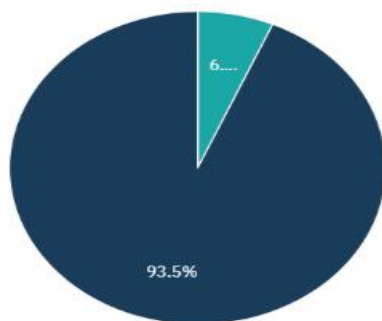


# DEMOGRAPHICS

## Demographics

### Respondent classified by Gender

Gender  
 ● Woman 6.5% ● Man 93.5%

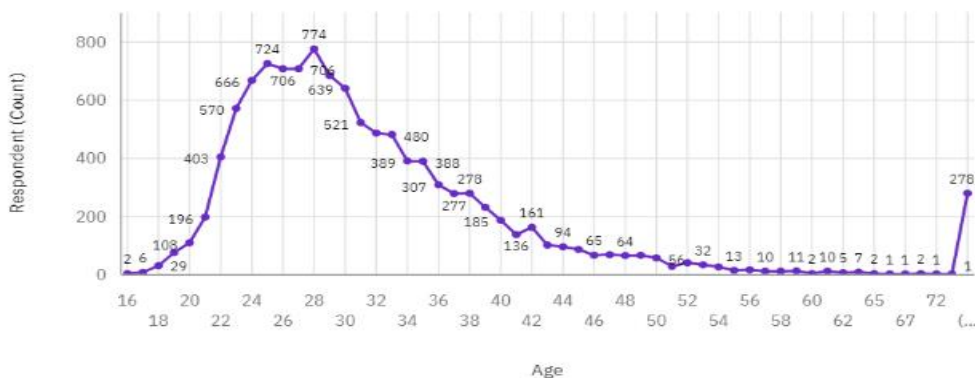


### Respondent Count for Countries

Respondent (Count)  
 1 3,058

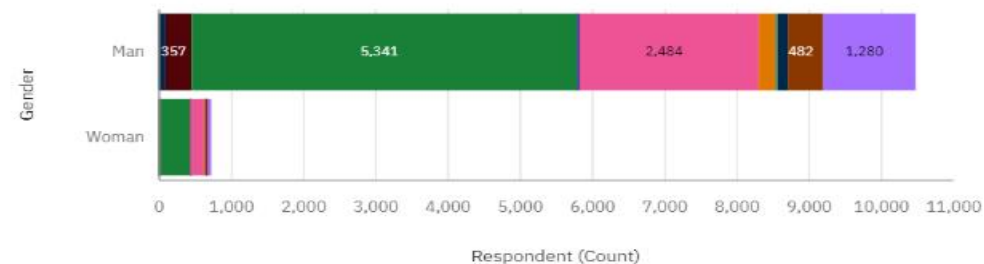


### Respondent Count by Age



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

EdLevel  
 ● (no value) ● Associate degree  
 ● Bachelor's degree (BA, BS, B.Eng....) ● I never completed any formal edu...  
 ● Master's degree (MA, MS, M.Eng.,....) ● Other doctoral degree (Ph.D, Ed.D...  
 ● Primary/elementary school ● Professional degree (JD, MD, etc.)



# DISCUSSION



- Technology Usage trend Now and Future
- New Technology constantly emerges leading to changes in demand
- Gender, Age, and Education discrimination in IT industry



# OVERALL FINDINGS & IMPLICATIONS

## Findings

- There are gender and age discrimination
- Technology trends changes every year
- Docker is the most popular platform

## Implications

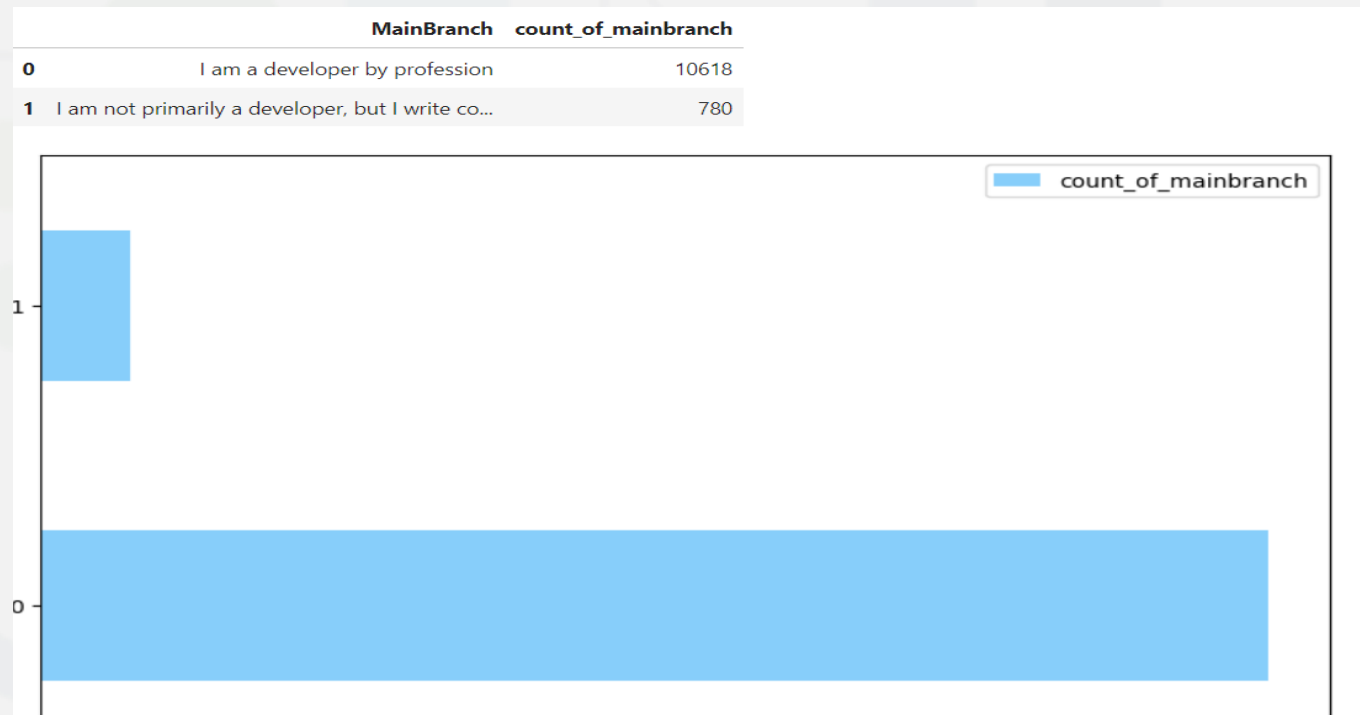
- IT Industry and Programmers companies should always follow the latest technology trends
- Countries should have the equal chance to be exposed to new technology
- Gender and Age should not be one of the concerns or benefits of Employment

# CONCLUSION



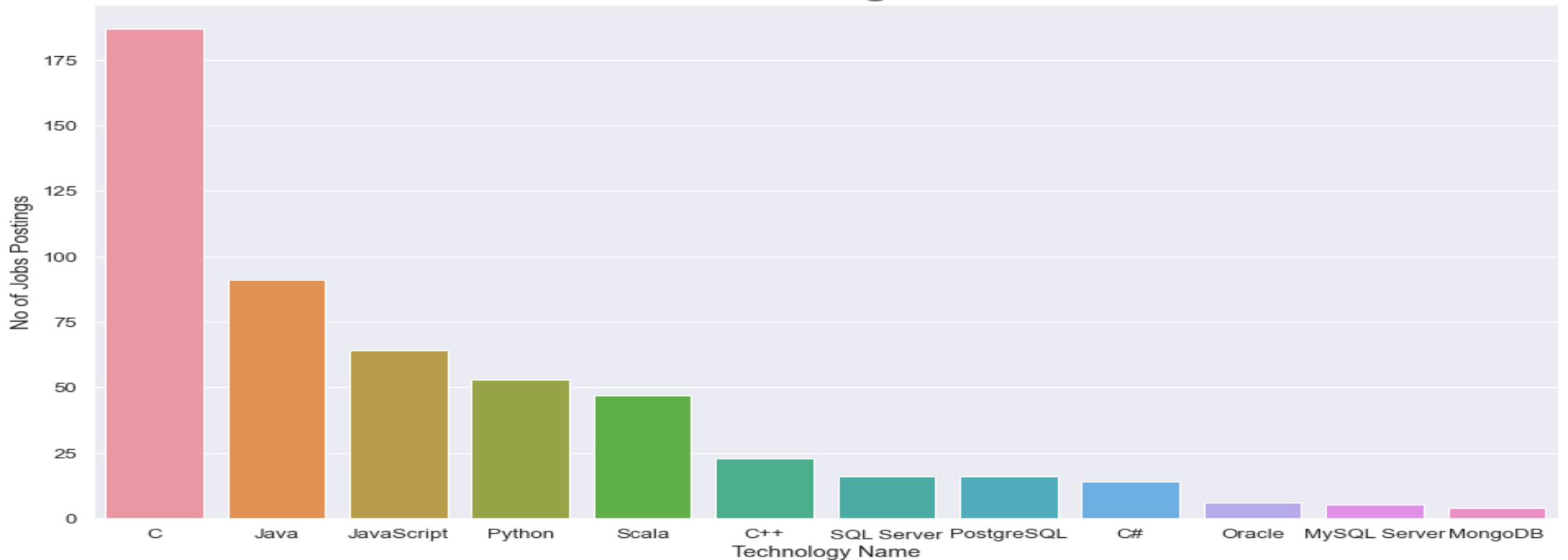
- Technology Trend for current and Next year
- Programming Languages, Database, Platform and Web frame Trends.
- Demographic Overview
- Gender and Education

# APPENDIX



# JOB POSTINGS

Number of Jobs @ Github



# POPULAR LANGUAGES

