

# Analysis Presentation



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# OUTLINE





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

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- Appendix



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# EXECUTIVE SUMMARY





- Trends in programming languages and databases
- Demographics survey
- Technological gap in countries
- Gender gap in jobs

## INTRODUCTION

About:



## Analyzing the trends in software development

### **Purpose:**

- Identify skill requirements for future
- What are the top programming languages in demand?
- What are the top database skills in demand?
- What are the popular IDEs

**Audience:** Human Resource and IT Head



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# METHODOLOGY



- **Data Collection Sources**

- Stack Overflow Developer 2019 Survey • GitHub Job Postings
- Programming Languages Annual Salary

- **Data Exploration**

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- **Data Cleaning**
  - **Data Visualization**
  - **Presentation**

# RESULTS



	Respondent...	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear
1.	25142	R			
2.	25142	Python			
3.	25142	C	C		
4.	25142	Go	Python		
5.	25142	C++	C++		
6.	25142	HTML/CSS	R		
7.	25142	PHP			
8.	25142	Bash/Shell/PowerShell	Bash/Shell/PowerShell	PostgreSQL	PostgreSQL
9.	25141	C#	F#		Microsoft SQL Server
10.	25141	JavaScript			
11.	25141	TypeScript			
12.	25141	HTML/CSS			Redis
13.	25141	Java			
14.	25141	Python			
15.	25141	SQL			

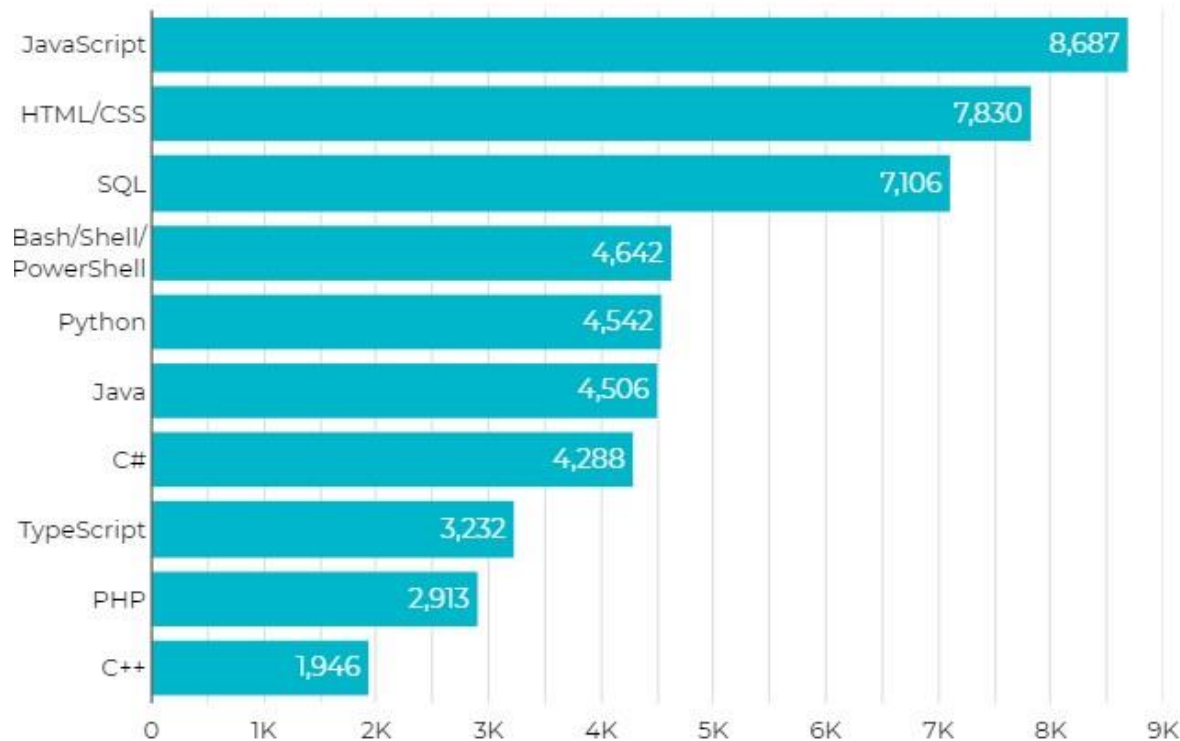
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# PROGRAMMING LANGUAGE TRENDS

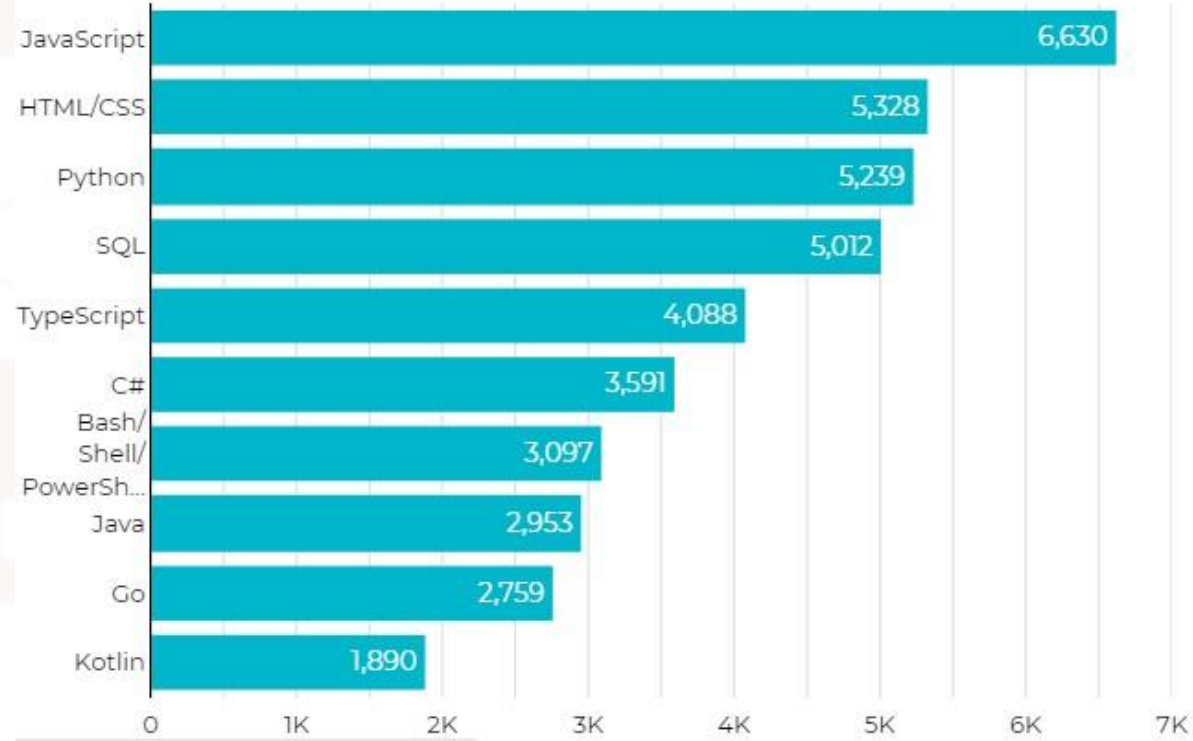
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Top 10 LanguageWorkedWith



Top 10 LanguageDesireNextYear



## PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- JavaScript, HTML/CSS, SQL are top 3 this year
- Python and Typescript becoming popular next year
- PowerShell edged out in next year

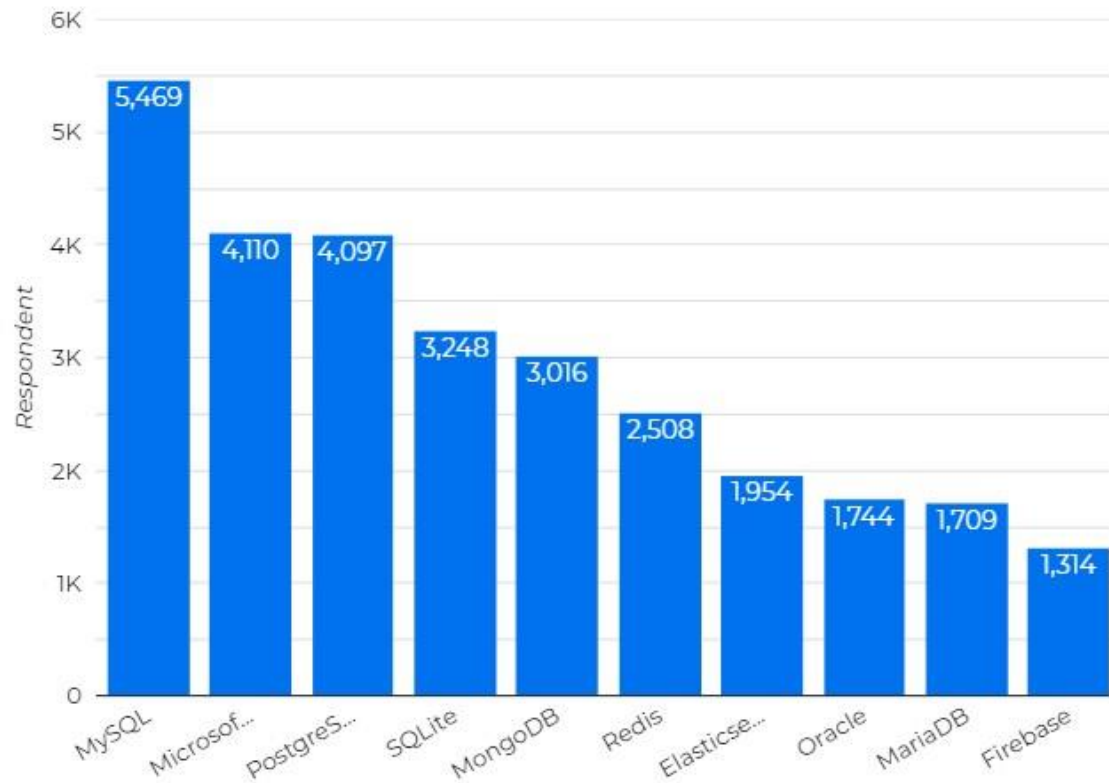
## Implications

- Web development are still in high demand
- Big Data technology in companies still requires SQL
- With AI and ML in rising demand, Python is best choice

# DATABASE TRENDS

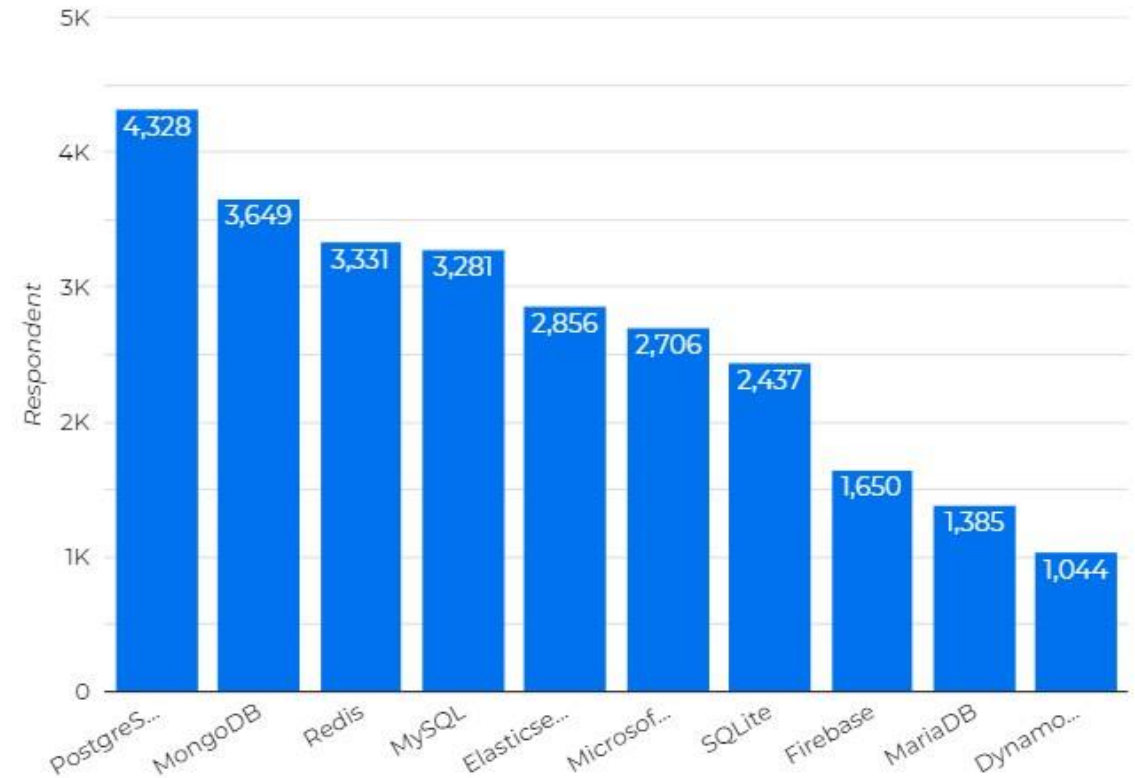
Top 10 Database Worked With

^Z | :



Top 10 Database Desired Next Year

^Z | :





# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL most popular
  - Behind is Microsoft SQL
  - MongoDB and Redis are upcoming favorites
  - New kid on the block: Elasticsearch
- Open source databases are still preferable in companies
  - NoSQL databases will make an impact for storing non relational data
  - Redis supports abstract data types
  - Pre tuned search to website, app, or ecommerce store

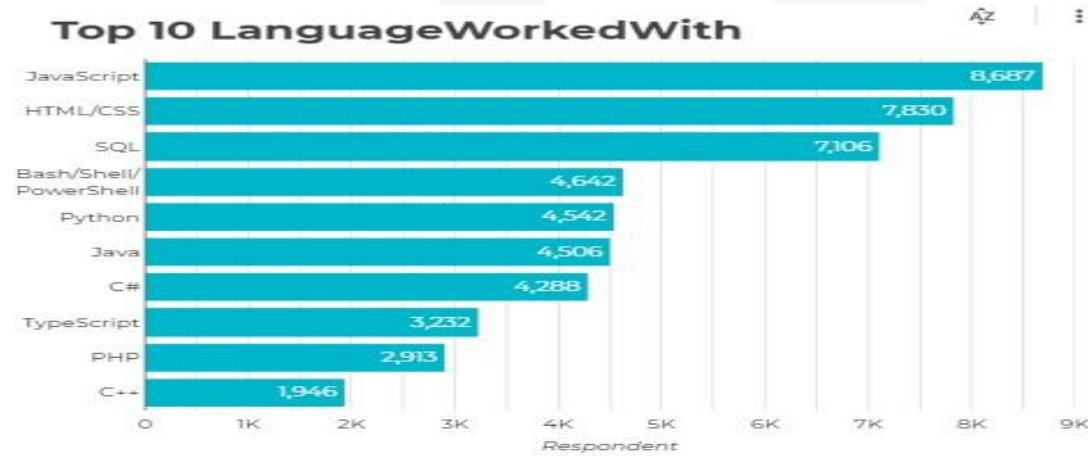
# DASHBOARD

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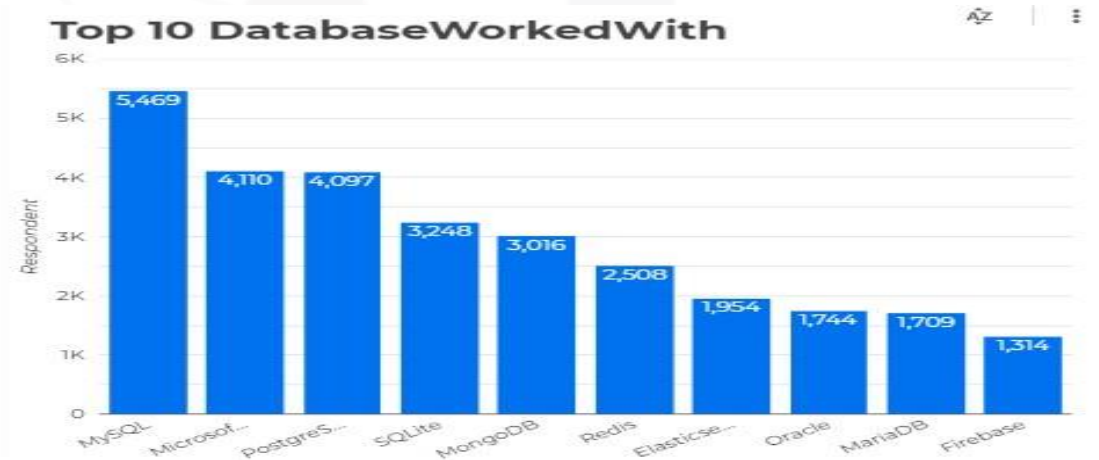


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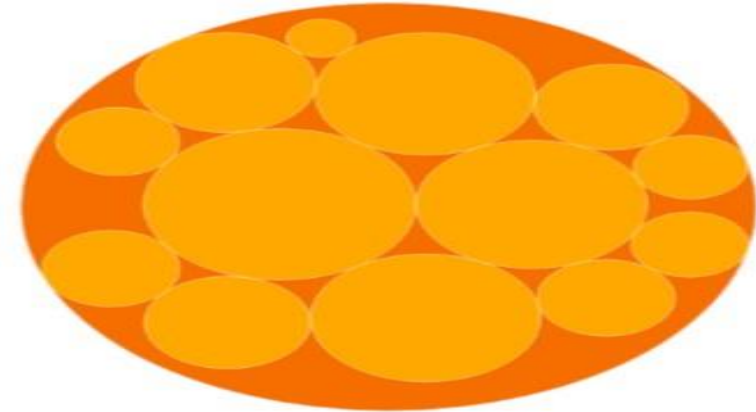
# DASHBOARD TAB 1



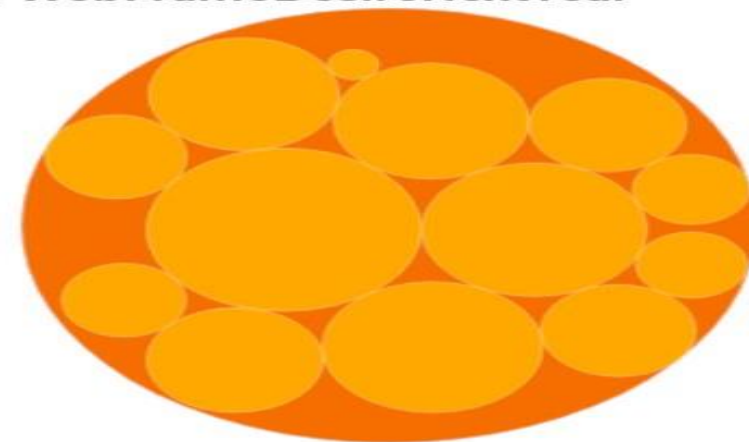
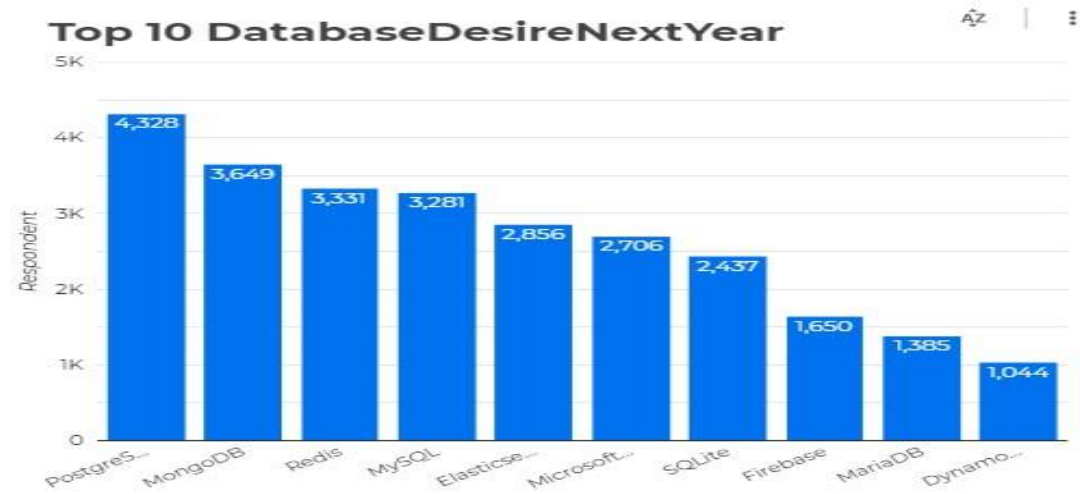
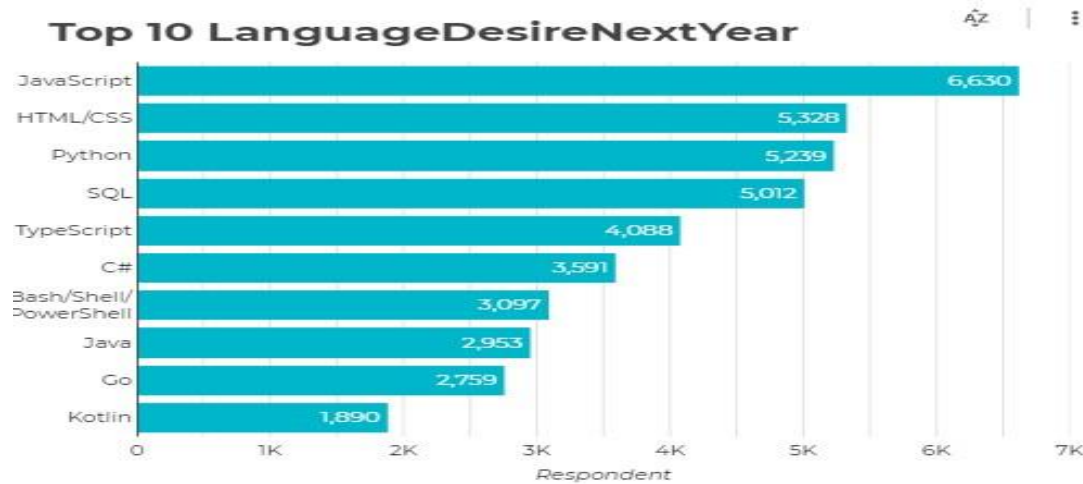
PlatformWorkedWith.



Top 10 WebFrameWorkedWith

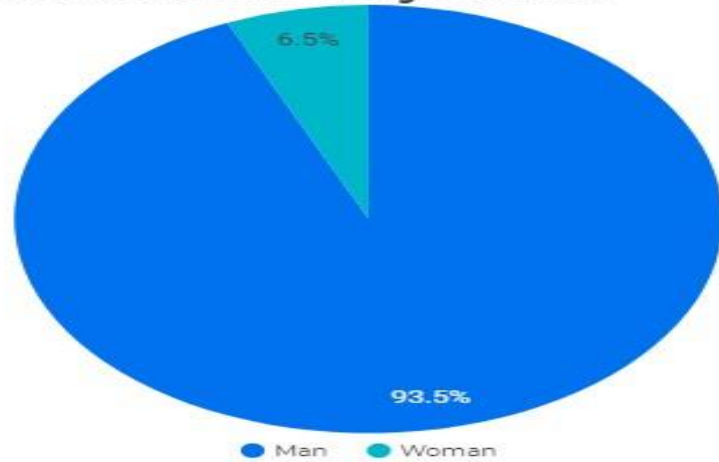


# DASHBOARD TAB 2



# DASHBOARD TAB 3

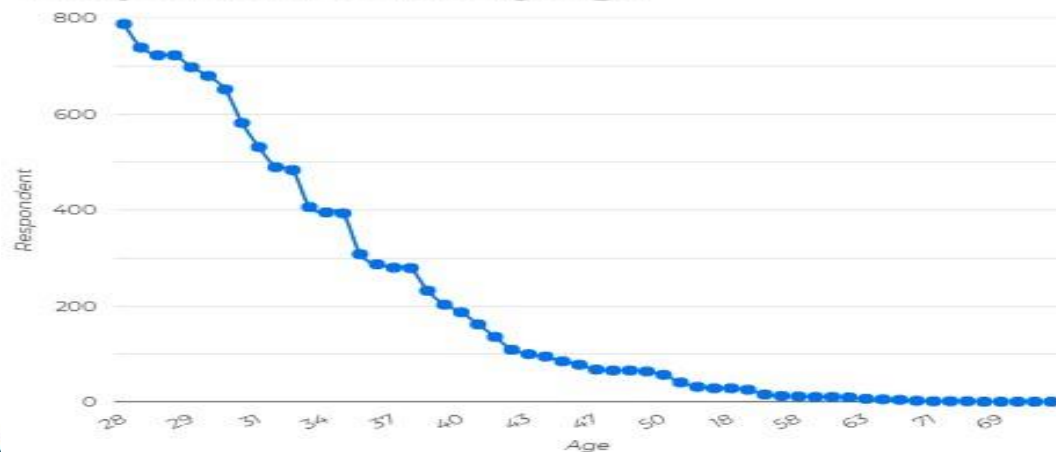
Respondent classified by Gender



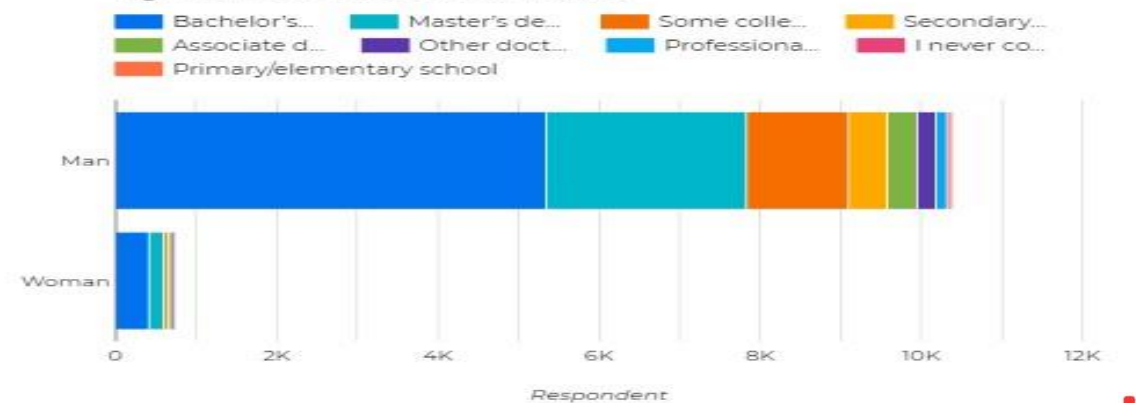
Respondent Count for Countries.



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



# DISCUSSION

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- Technology Trends now and future
- Training and Reskilling workers
- Females participation in Technology field
- Bridge divide of technology gaps in developing countries
- Eliminate age and education discrimination in employment



# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Fast changing technology every year
- Concentration on several countries like USA and India
- Gender gap in technology jobs

- Platforms like Docker and AWS are growing

## Implications

- Companies need to be flexible and adjust to rapid changes
- Need to spread technology out to lagging countries



- Impact of job hiring's

- Shift to faster app deployments and cloud services in future

## CONCLUSION

- Technology Trends for current and next year

- Programming Languages, Database and Platform overview

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- Demographics overview
- Actions to be taken
- In future, incorporate Machine Learning to predict trends and salaries

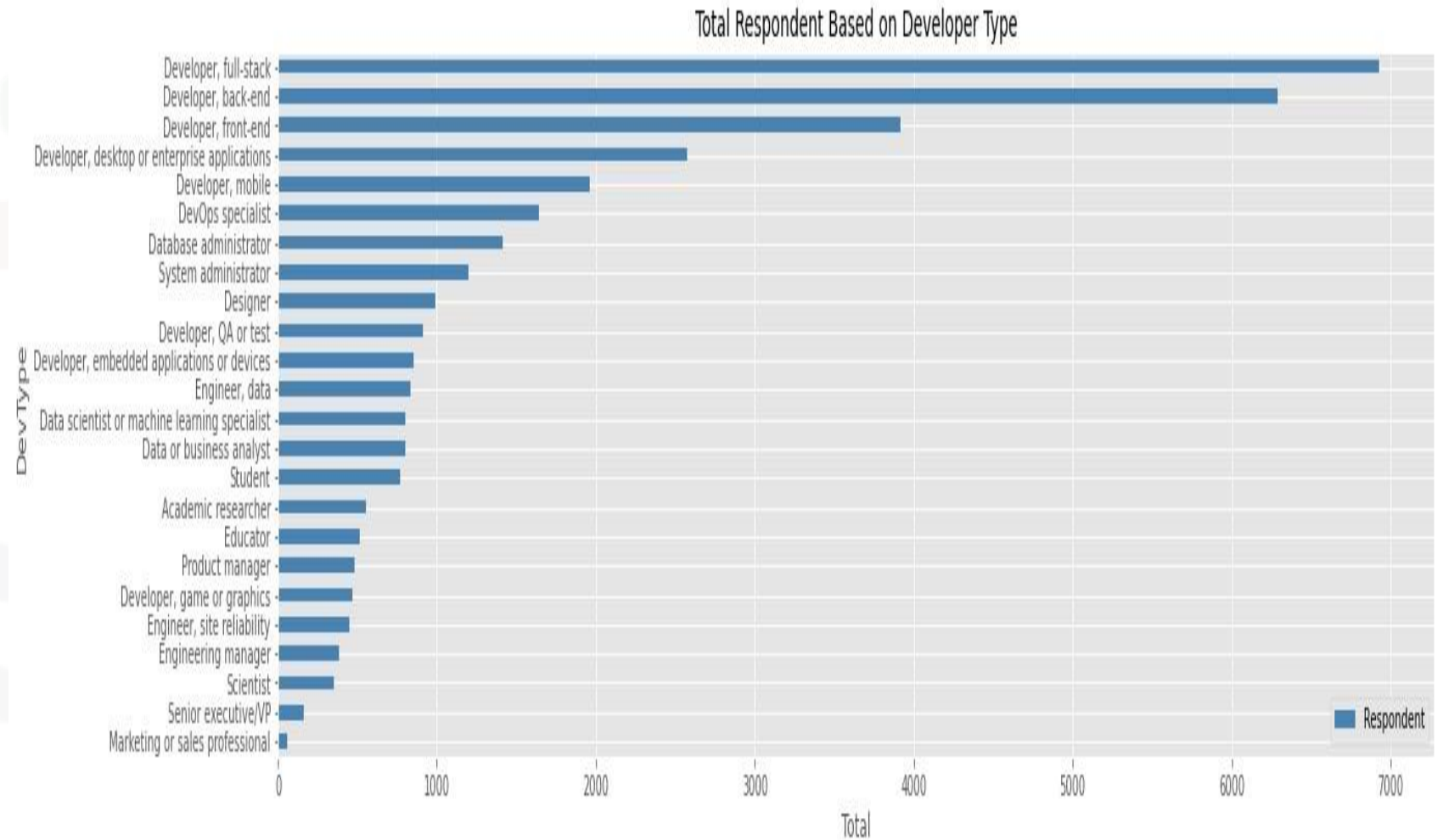
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# APPENDIX





# IBM Developer

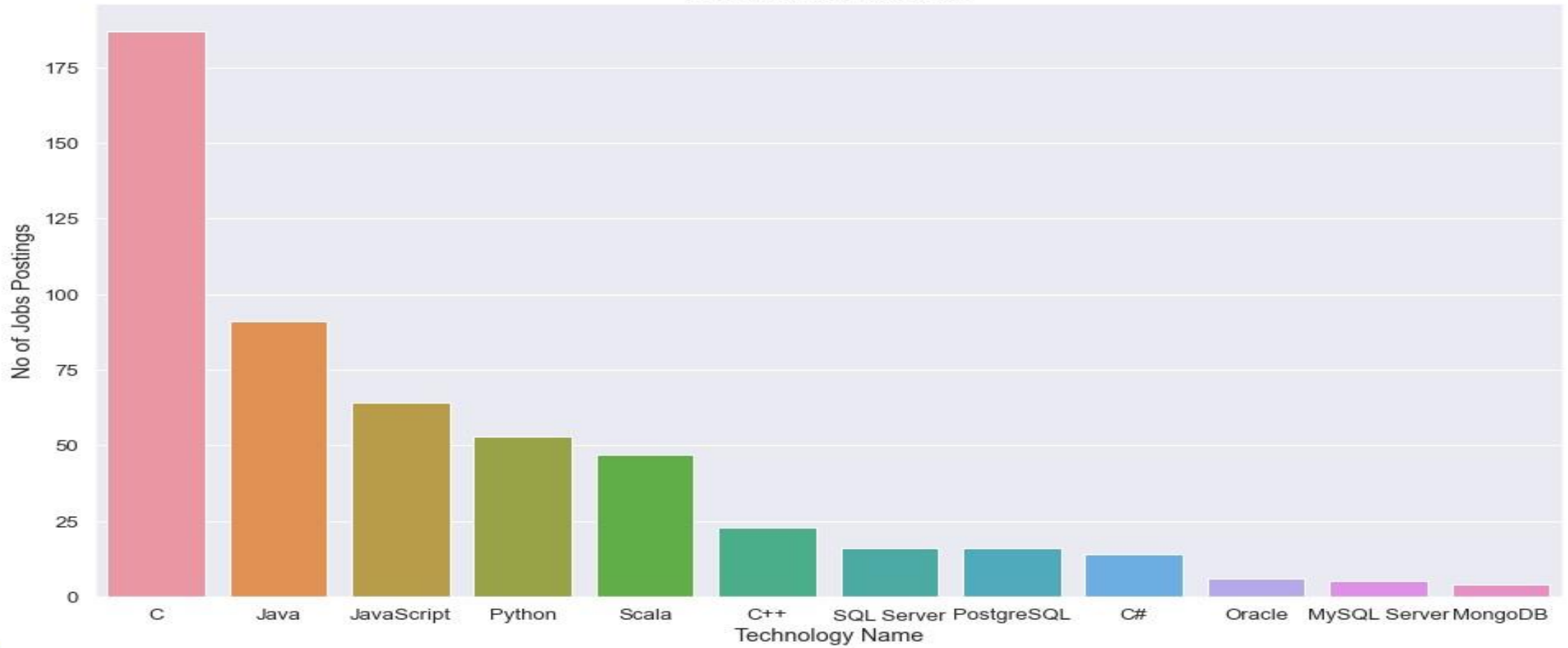


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# GITHUB JOB POSTINGS



Number of Jobs @ Github



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# POPULAR LANGUAGES



## Job Salaries

