



Technology Trends & Analysis Presentation

Summiya Ejaz
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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 database
- 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

METHODOLOGY



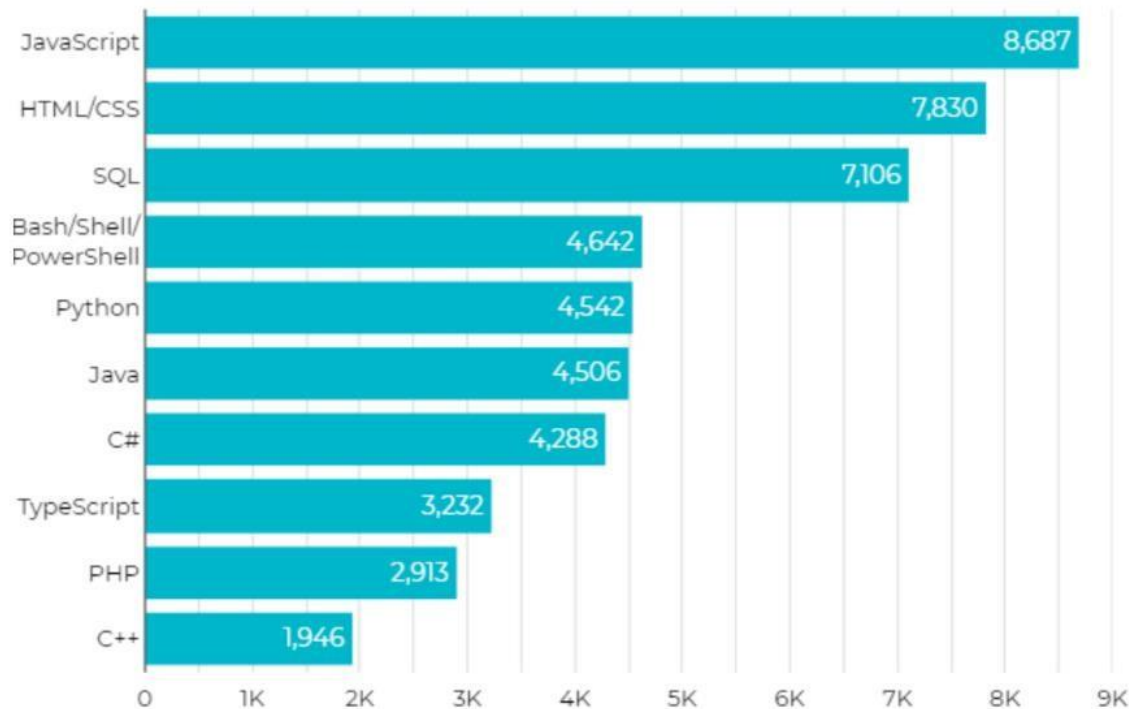
- **Data collection sources**
 - Stack Overflow Developer 2019 Survey
 - GitHub Job Postings
 - Programming Languages Annual Salary
- **Data Exploration**
- **Data Cleaning**
- **Data Visualization**
- **Presentation**

RESULTS

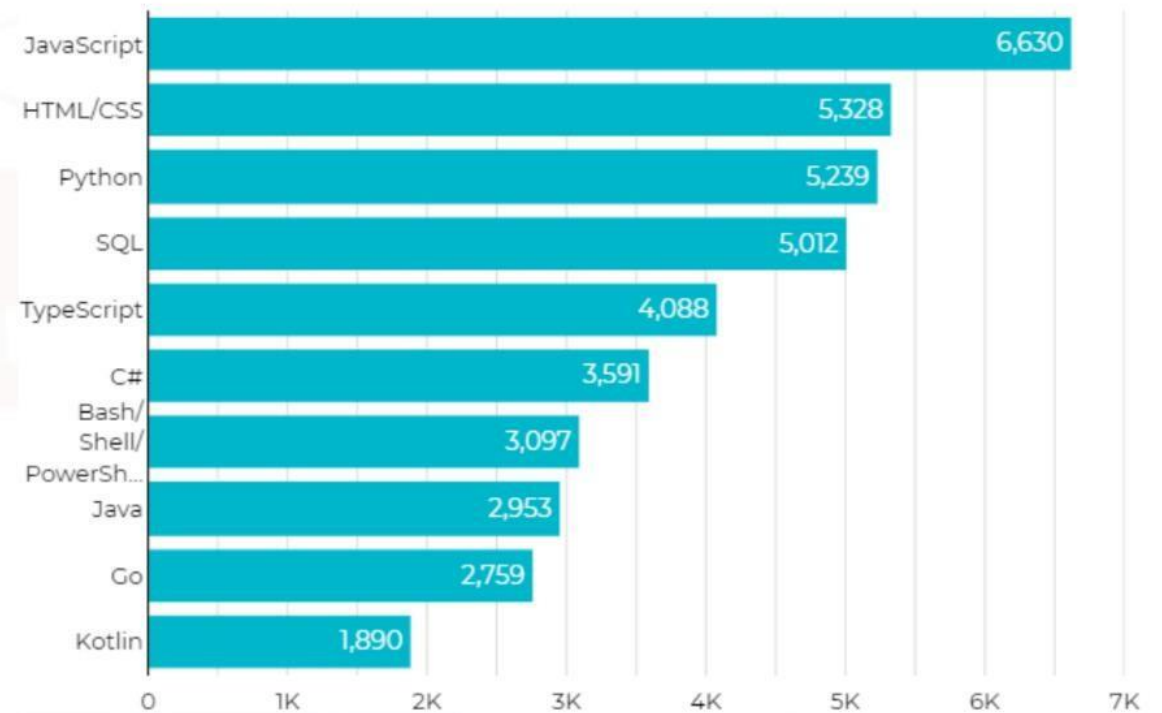
	Respondent...	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear
1.	25142	R			
2.	25142	Python			
3.	25142	C	C		
4.	25142	Go	Python		
5.	25142	C++	C++		
6.	25142	HTML/CSS	R		
7.	25142	PHP			
8.	25142	Bash/Shell/PowerShell	Bash/Shell/PowerShell	PostgreSQL	PostgreSQL
9.	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			

PROGRAMMING LANGUAGE TRENDS

Top 10 LanguageWorkedWith



Top 10 LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

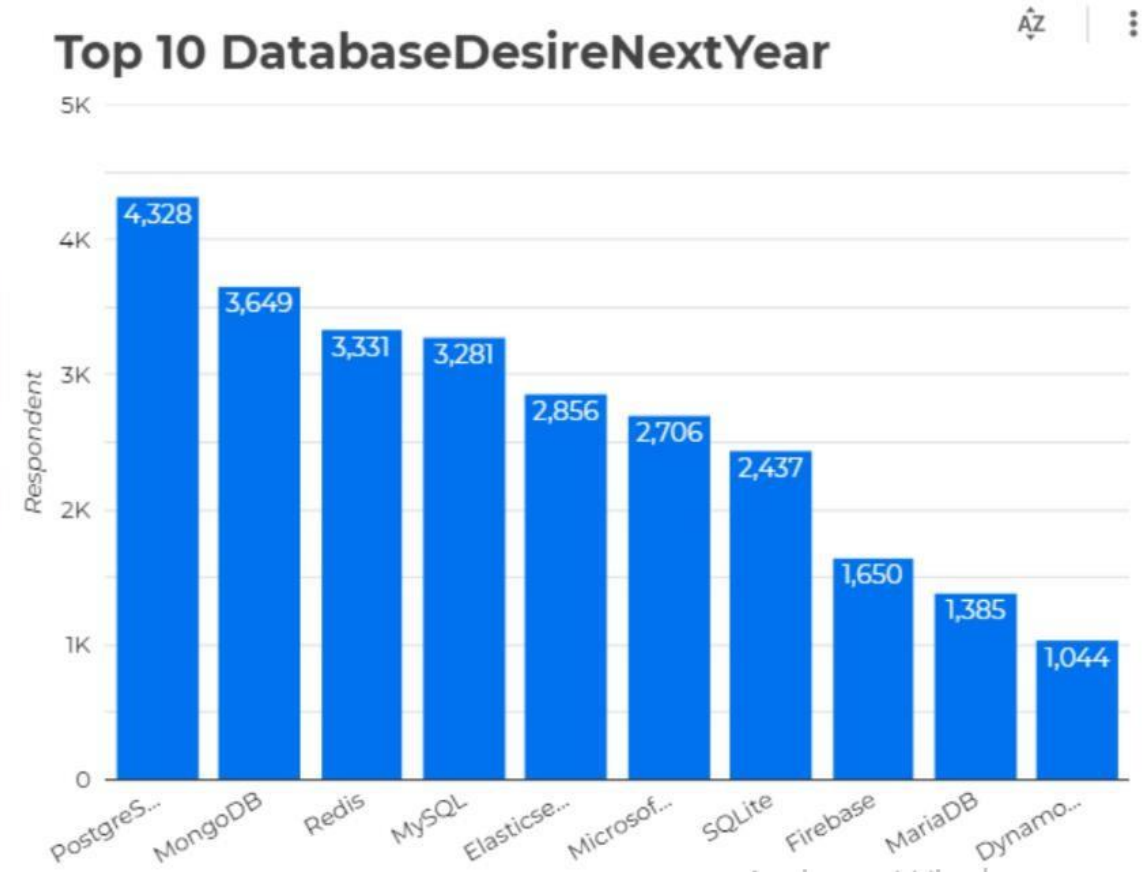
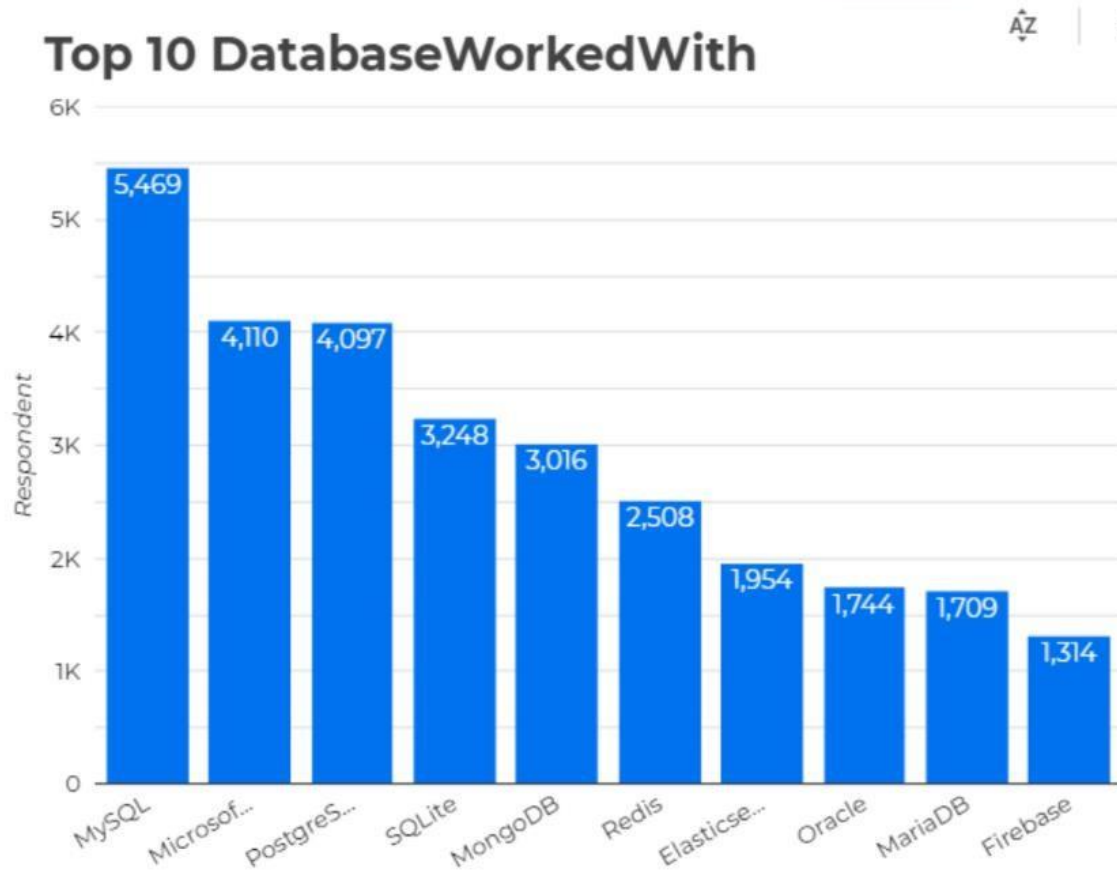
Findings

- 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



DATABASE TRENDS – FINDINGS & IMPLICATIONS

Findings

- MySQL most popular
- Behind is Microsoft SQL
- MongoDB and Redis are upcoming favorites
- New kid on the block: Elasticsearch

Implications

- 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



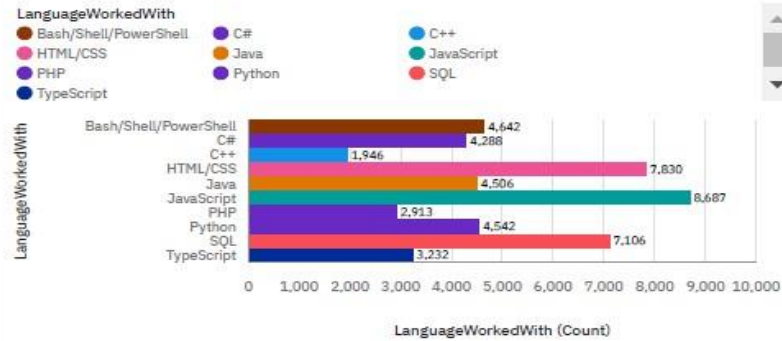
<https://github.com/>

DASHBOARD TAB 1

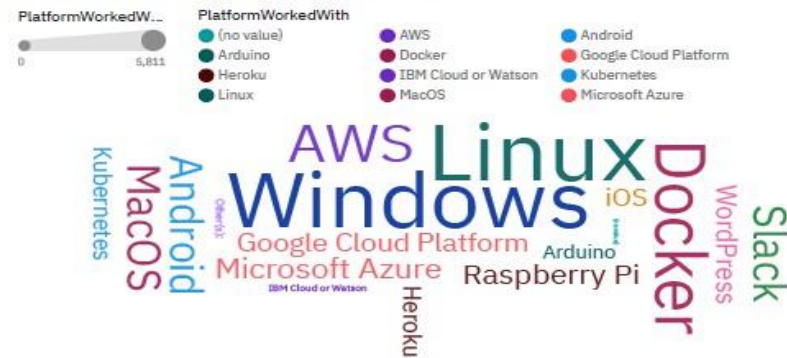
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Current Technology Usage

Bar Chart of LanguageWorkedWith

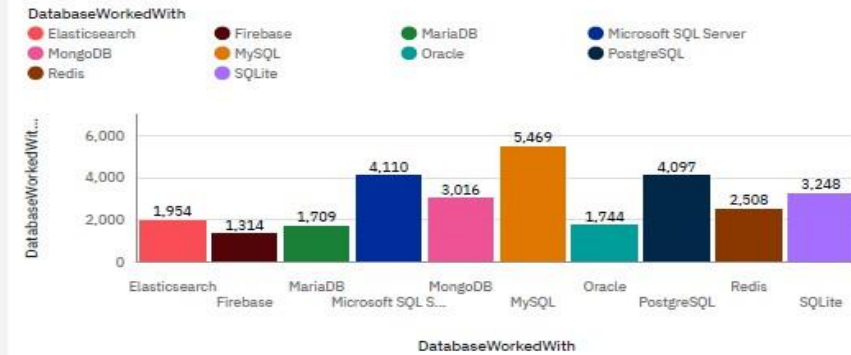


Word Cloud of PlatformWorkedWith

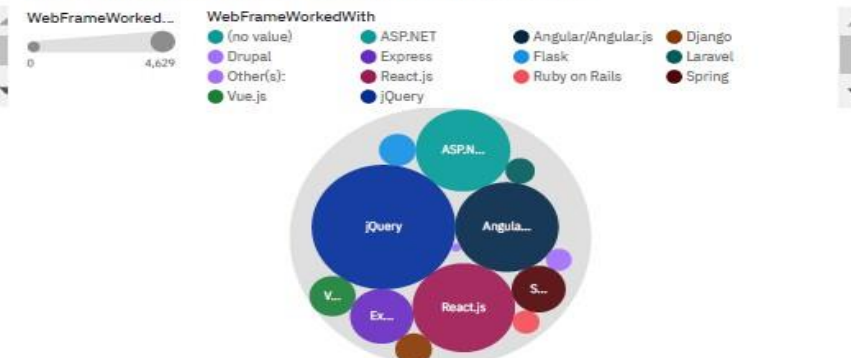


New dashboard

Column Chart of DatabaseWorkedWith



Hierarchy bubble chart of WebFrameWorkedWith



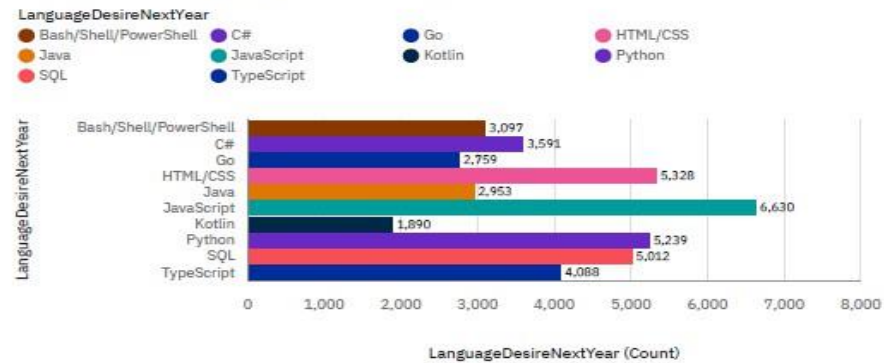
DASHBOARD TAB 2

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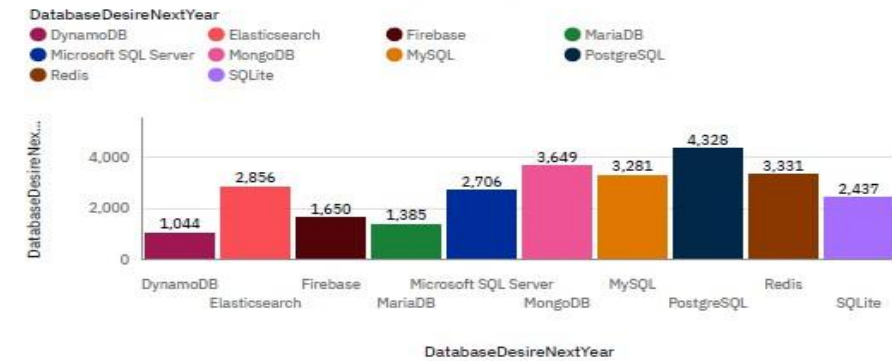
New dashboard

Future Technology Trend

Bar Chart of LanguageDesireNextYear



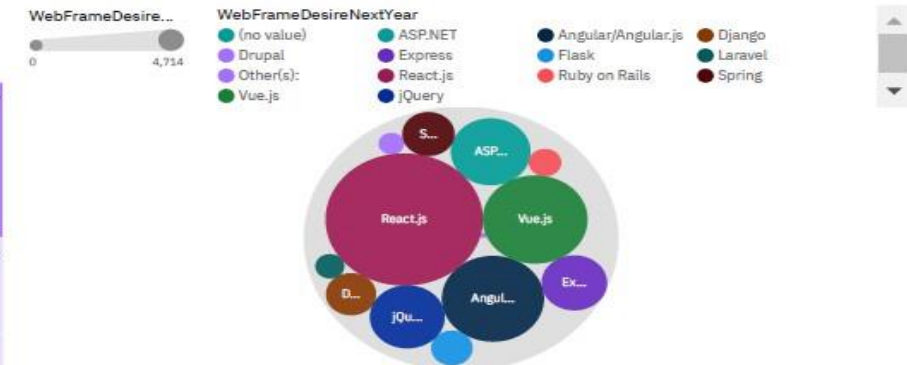
Column Chart of DatabaseDesireNextYear



Tree Map of PlatformDesireNextYear



Hierarchy bubble chart of WebFrameDesireNextYear



DASHBOARD TAB 3

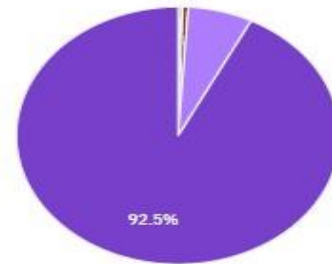
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Demographics

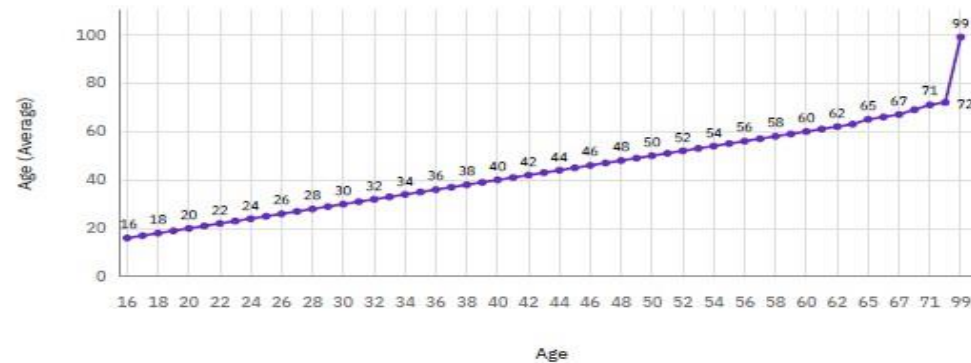
Pie Chart of Gender

Gender

- (no value)
- Woman;Non-binary, genderqueer,...
- Woman
- Woman;Man;Non-binary, genderq...
- Man;Non-binary, genderqueer, or ...
- Man
- Woman;Man
- Non-binary, genderqueer, or gend...



Line Chart of Age

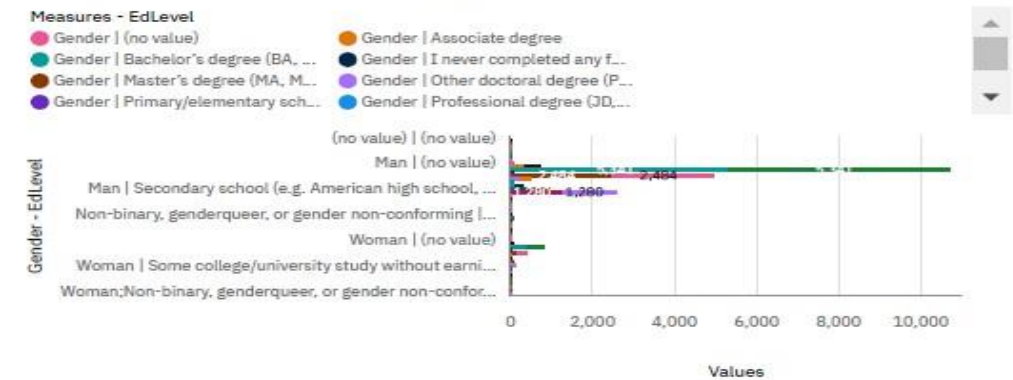


New dashboard

Map for Country regions



Bar Chart of Gender Classified by EdLevel



DISCUSSION



- 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

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

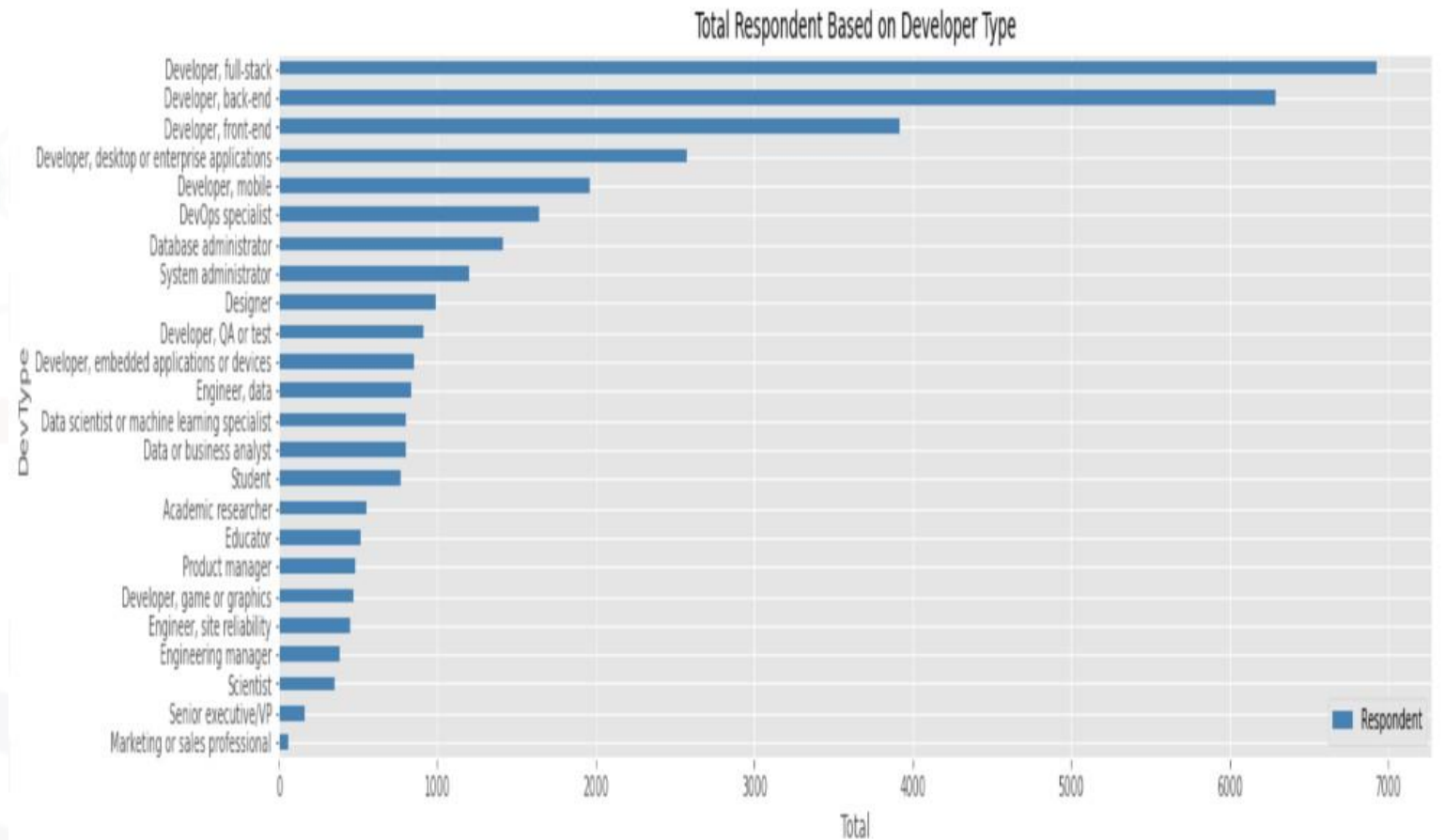
- Companies need to be flexible and adjust to rapid changes
- Need to spread technology out to lagging countries
- Impact of job hiring's
- Shift to faster app deployments and cloud services in future

CONCLUSION

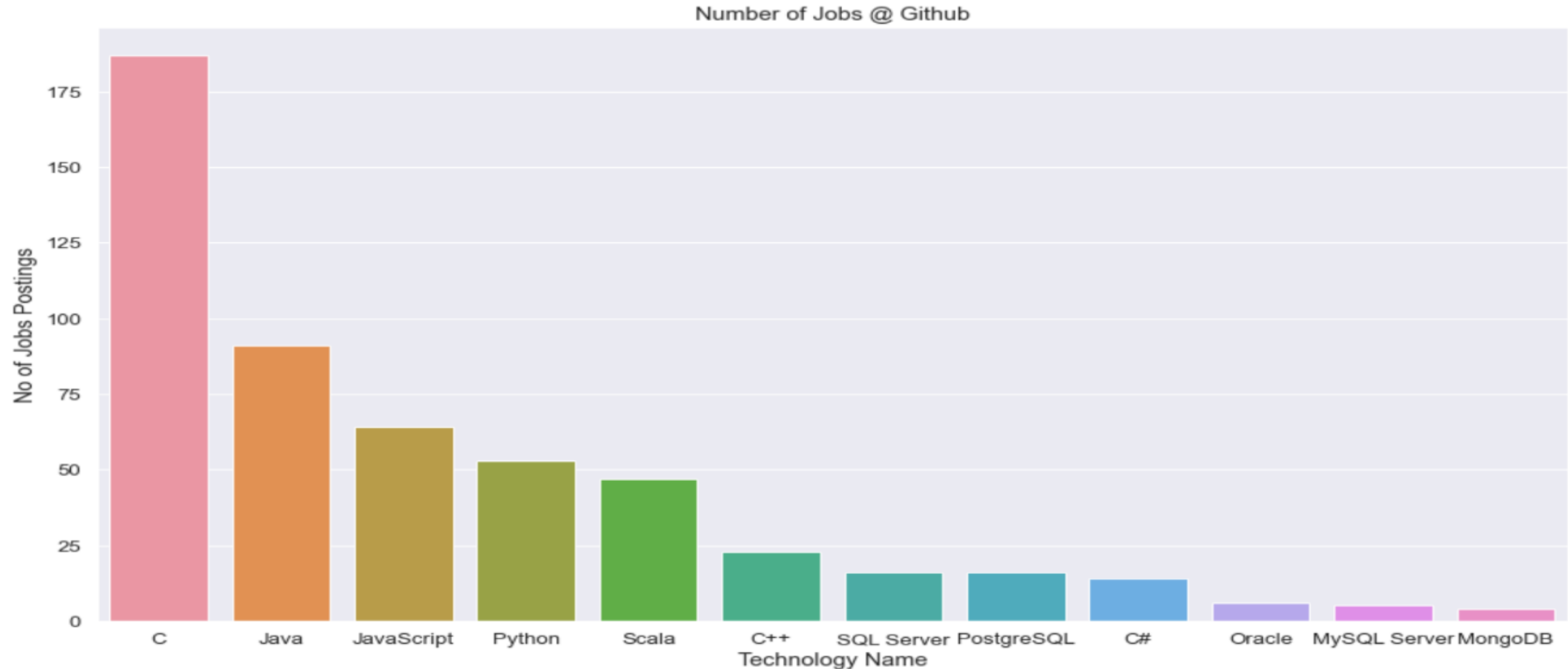


- Technology Trends for current and next year
- Programming Languages, Database and Platform overview
- Demographics overview
- Actions to be taken
- In future, incorporate Machine Learning to predict trends and salaries

APPENDIX



GitHub Job POSTINGS



POPULAR LANGUAGES

