



Coding Technologies Data Analysis Project

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OUTLINE



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

EXECUTIVE SUMMARY



This presentation focuses on :

- Trends in :
 - Languages,
 - Databases,
 - Platforms and
 - Web Frames
- Gender disparity in IT sector.
- Uses Variation across Globe.
- Educational qualification of Users
- Dominant age group in IT sector.

INTRODUCTION



- **About :**

This presentation will focus on the Coding Technologies currently in use, their future scope and newly emerging technologies.

- **Objective :**

Its prime targets are the companies of the IT sector and individuals who are trying to seek their entry in this very sector and keep their skills updated.

- **Takeaways :**

After going through this report you'll get to know about

- Coding Skills in demand as well as emerging rapidly.
- How factors such as age, gender and geography have an impact in this field

METHODOLOGY



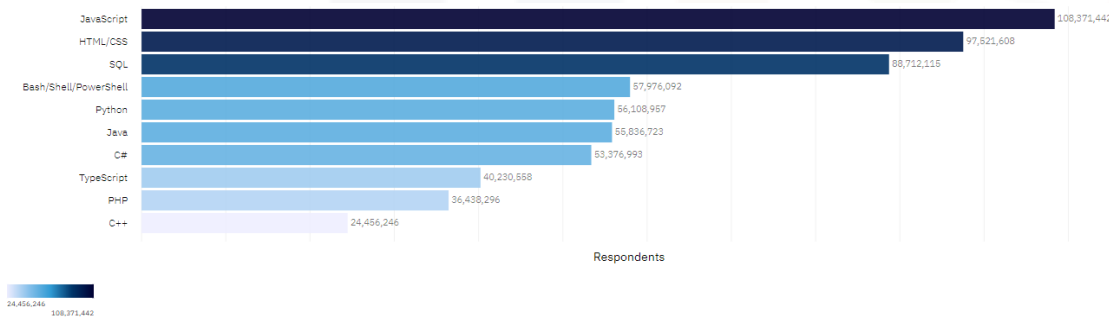
- Data Collection
 - Job Portals
 - Surveys
- Data Wrangling and Exploratory Data Analysis
 - Python
 - SQL and
 - Web Scrapping
- Data Visualization and Dashboard
 - IBM Cognos Analytics
 - IBM Watson Studio
- Presentation

RESULTS

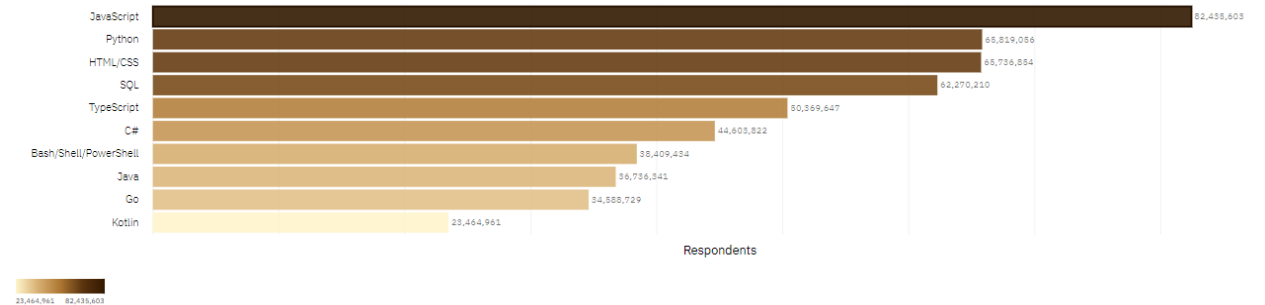


PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- As per the bar chart, **JavaScript** is currently the most popular language followed by **HTML/CSS** and **SQL** ranked 2nd and 3rd respectively.
- Languages like **Python** and **TypeScript** have improved their rankings significantly in the Future Technology Trends Chart.
- Languages like **Go** and **Kotlin** have made it to the top 10 desired languages replacing **PHP** and **C++**.

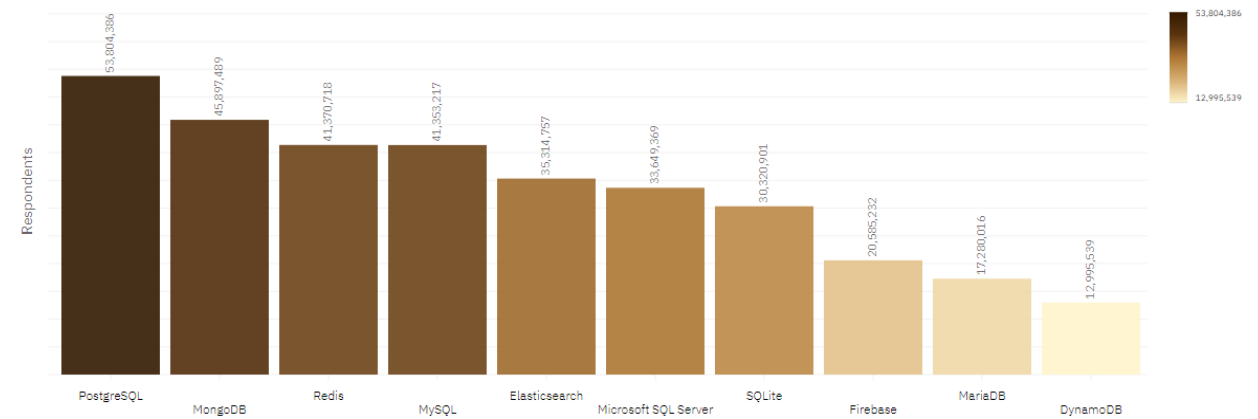
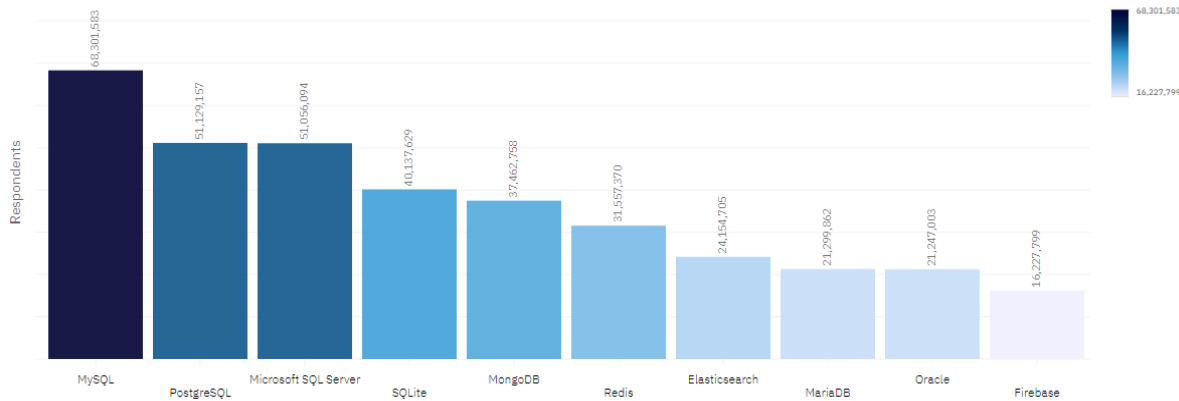
Implications

- While **JavaScript** has held its spot but it seems difficult for it because there is a big difference between no. of users currently using it and users desiring it next year.
- User base of **Python** and **TypeScript** is supposed to increase and their rankings are also supposed to improve more because of their demand in Data Science.
- Although **C#** has improved its rank but still its user base is supposed to fall as per chart which is not good.

DATABASE TRENDS

Current Year

Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- As per the column chart, **MySQL** is currently the most popular database followed by **PostgreSQL** and **MS SQL** ranked 2nd and 3rd respectively.
- Databases like **MongoDB**, **Redis** and **Elasticsearch** have improved their rankings significantly.
- **DynamoDB** database has made it to the top 10 desired databases while **Oracle** wasn't able feature in top 10.

Implications

- Although **PostgreSQL** has made it to top spot but it seems difficult for it to retain it further because of the rate at which databases like **MongoDB** and **Redis** are growing plus decrease in no of Users desiring it.
- **DynamoDB** breaking it into the Top 10 desired languages means we can hope for some positive trend. So, NoSQL databases popularity is supposed to increase.
- **Firebase** is supposed to have more users as it has improved its rank in **Databases Desire Table**.

DASHBOARD

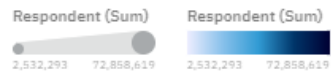
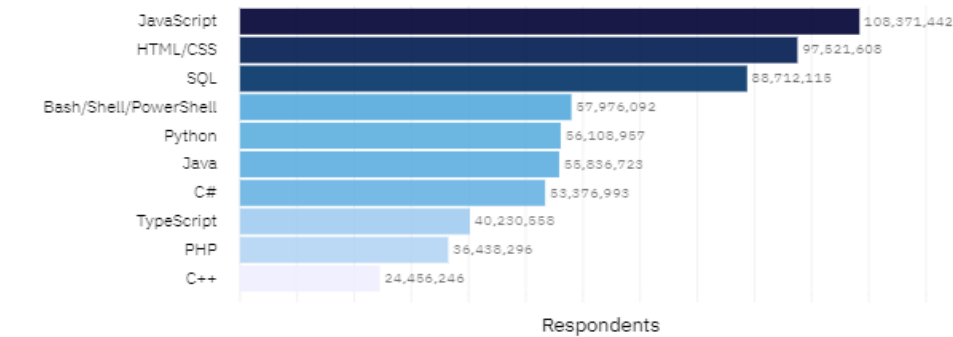


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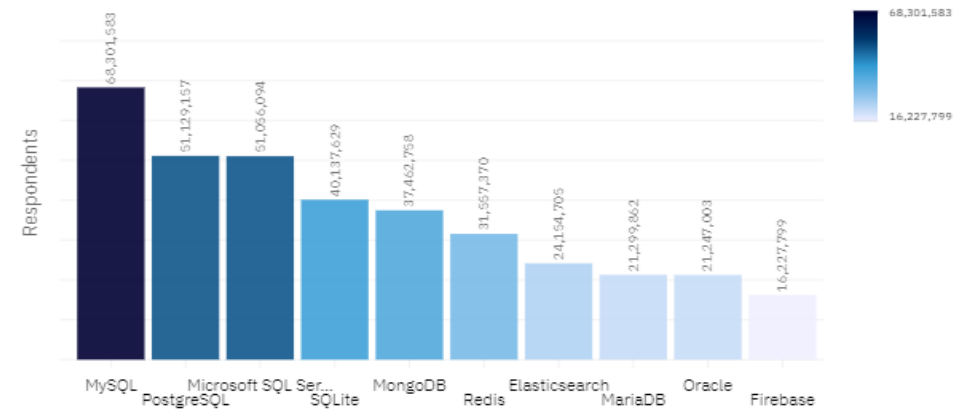
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DASHBOARD TAB 1

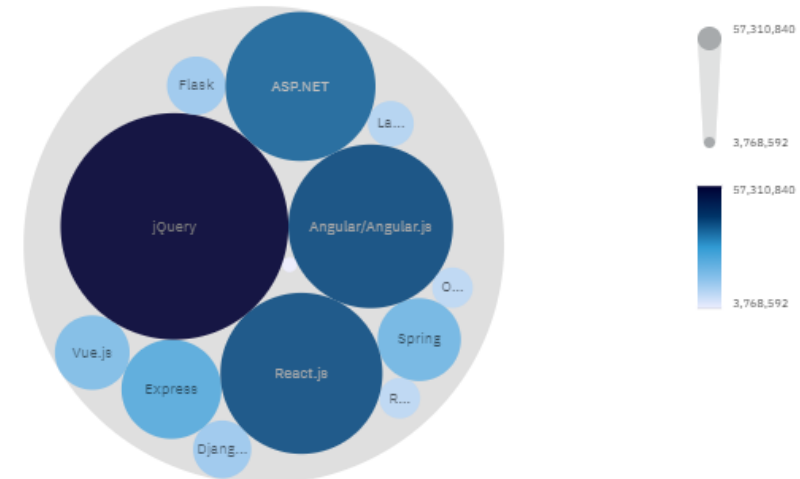
Top 10 Language Worked With



Top 10 Databases worked with

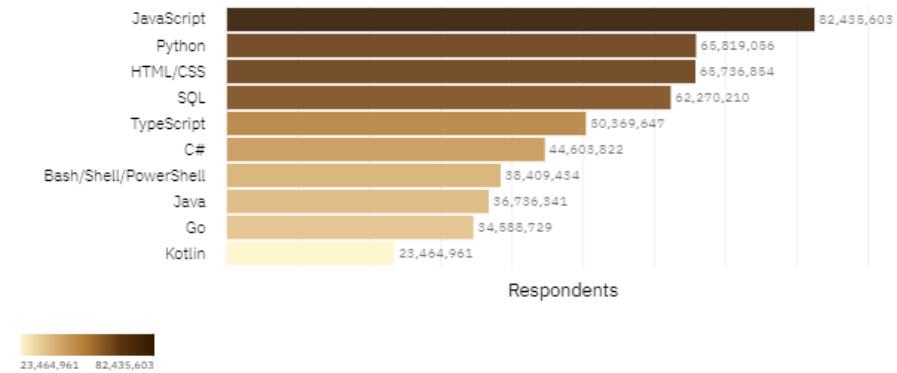


Top 10 Web Frame Worked With

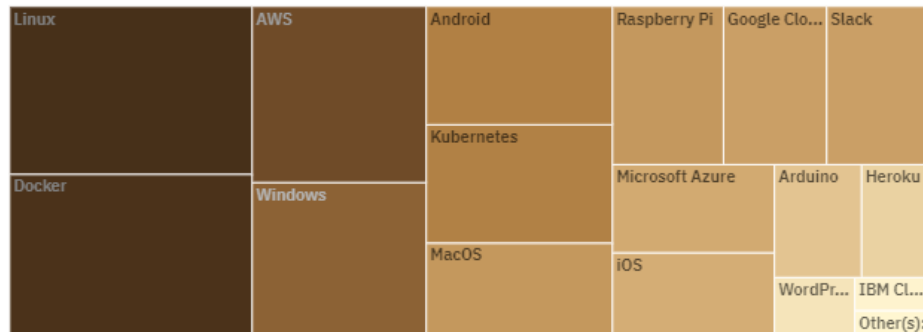


DASHBOARD TAB 2

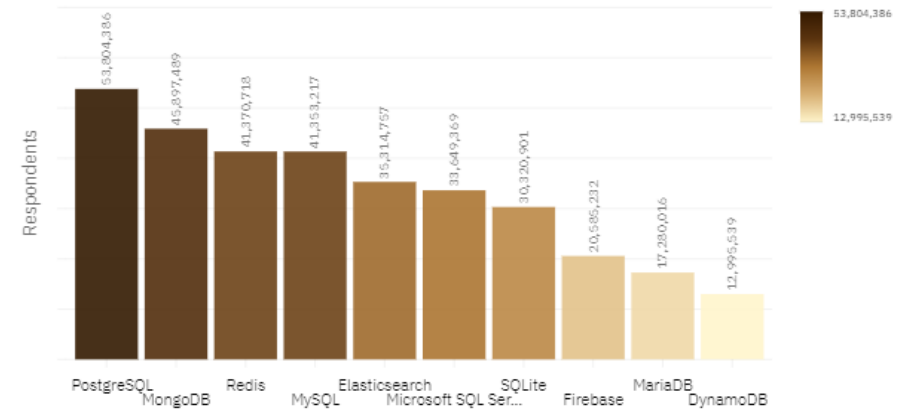
Top 10 Languages desired next year



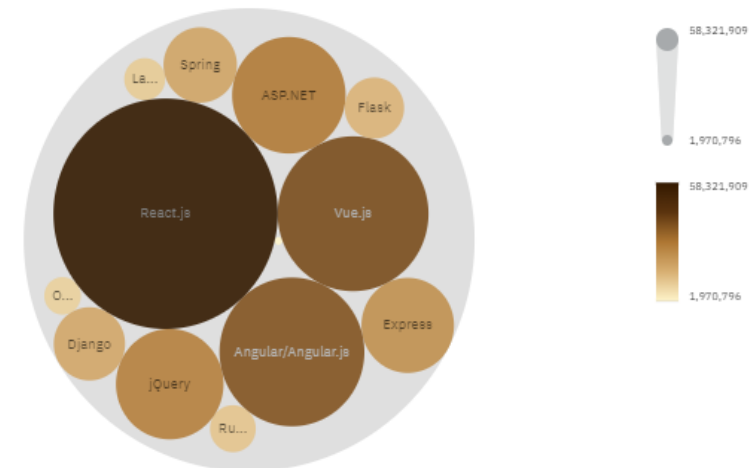
Platform Desire Next Year



Top 10 Databases desired next year

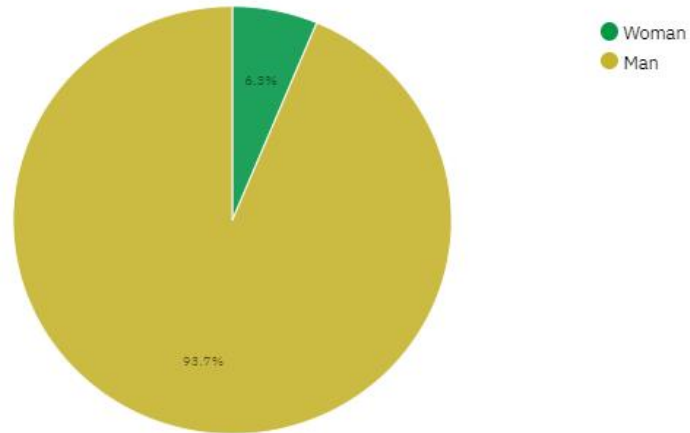


Top 10 Web Frame Desired next year



DASHBOARD TAB 3

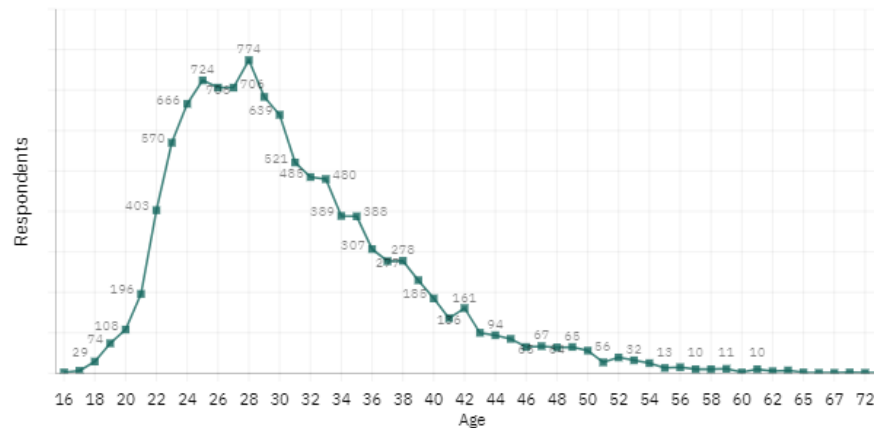
Respondent classified by Gender



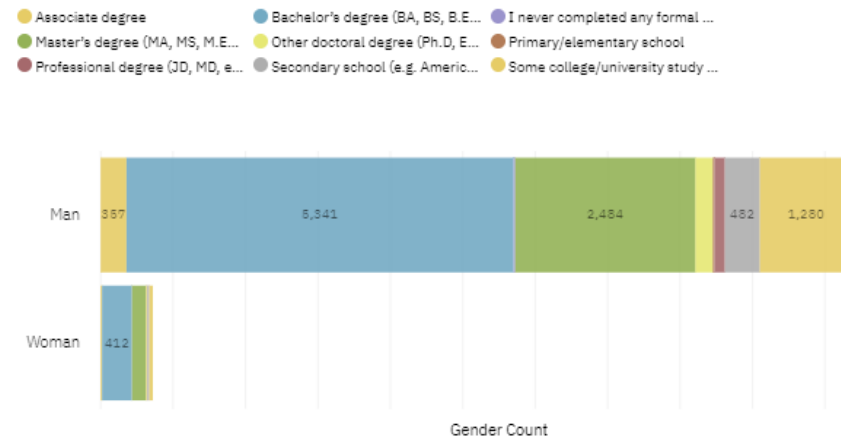
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



- As per the Dashboard we have :
 - Male population is in much higher number with respect to the Female counterpart.
 - Majority of Users are from United states.
 - Age group of 20's and 30's are in big numbers.
 - While among the category of people with formal education, a majority of Users are Men with a Bachelor's degree followed by Men with Masters.

So these may be some of the factors to have a look upon.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Languages like **Python** and **TypeScript** are on rise.
- Among Databases, an Increase in no. of users for **MongoDB, Redis** and **Elasticsearch** has been noticed.
- While **Linux** rules the Platform Table rankings but user count of **Docker** and **AWS** is supposed to have an upward trend.
- In the Web Frames Category **Vue.js** and **React.js** are showing some highly positive graph.

Implications

- **Python and TypeScript** are going to be the Languages worth learning and offering Job Opportunities so, focus on its training should increase .
- **MongoDB, Redis, Elasticsearch** among Databases, can't ignored
- **Docker** and **AWS** in Platforms.
- **Vue.js** and **React.js** in Web Frames need to be considered.
- Recruitment of women candidates so as to fill this gender gap.

CONCLUSION

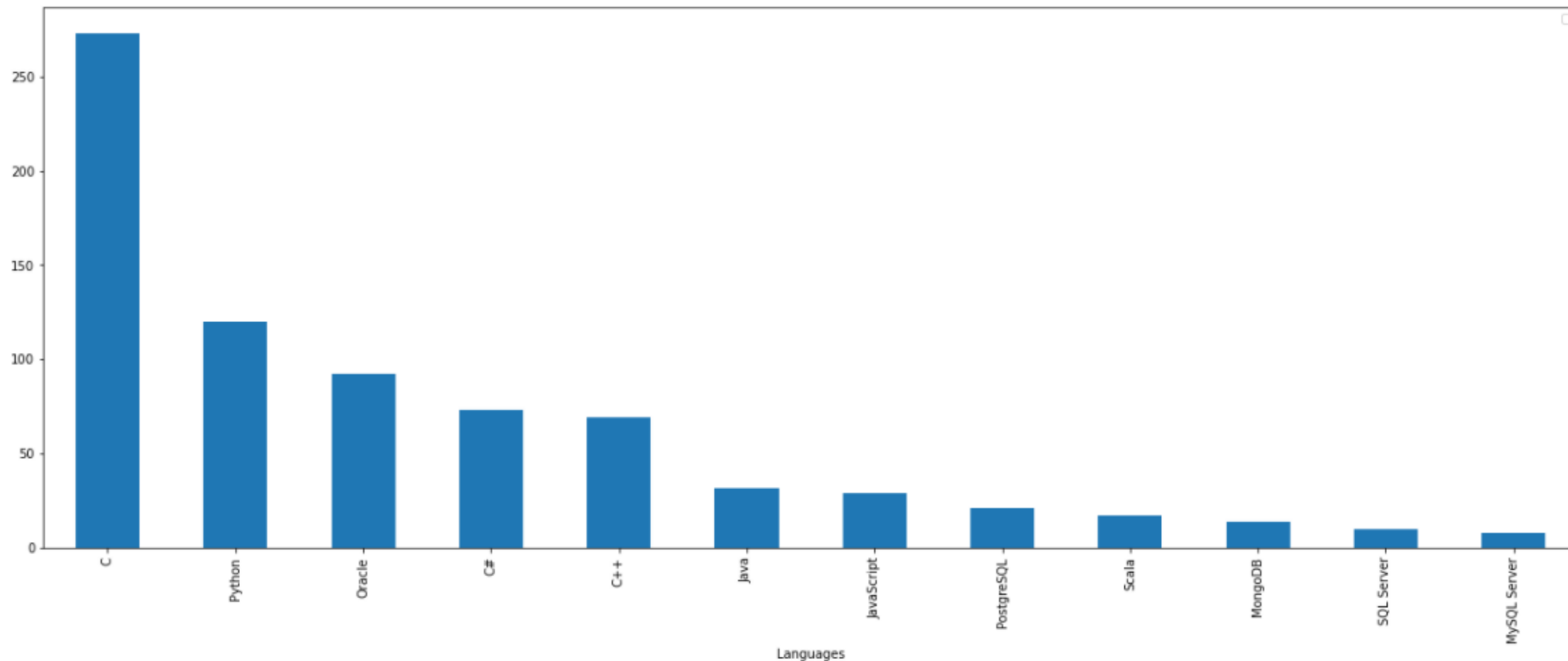


- Most in demand Technologies : **JavaScript , PostgreSQL** and **Linux**
- Technologies having highly positive trend : **Python , TypeScript, MongoDB, Redis, AWS, Docker** and **Elasticsearch**.
- **jQuery, PowerShell, MySQL, MS SQL** are going to notice a downfall in demand.
- Recruitment of women candidates needs to be emphasized.
- So, those looking for jobs should try to learn those languages which are either most in demand or like Python (growing rapidly) so as to increase his/her chances of getting employed.

APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

