Programming Languages

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OUTLINE

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  - Dashboard
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EXECUTIVE SUMMARY

- People interested in languages are presented

- The desire of people who want to use languages is shown

- Which age is more interested in such languages

- People with which degree are interested in languages

- Gender gap

INTRODUCTION

- This is important to focus on such languages and how they are valuable in the future.

- When we know about the age of users, we can predict their desires as well.

- The countries interested in such languages are shown in the following, which can help us know which country is more interested in them.

- This report is good for people who need to understand the changes in trend of the usage of programming languages.

- The gender gap between participants

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METHODOLOGY

- Data Collection
- Data Cleaning
- Data Exploration
- Visualization
- Presentation

RESULTS
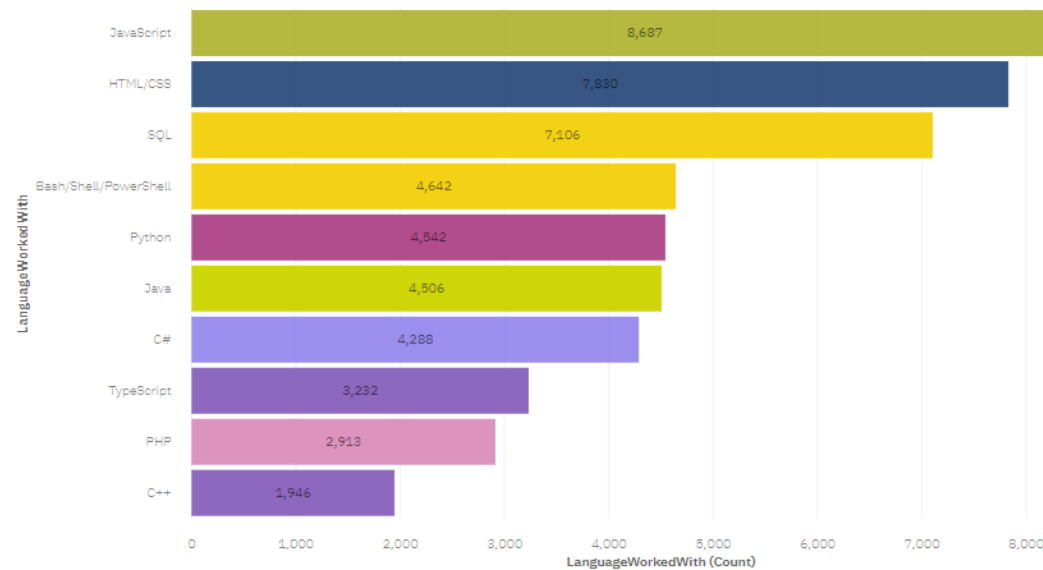
Almost all countries and people will use programming languages in the future.
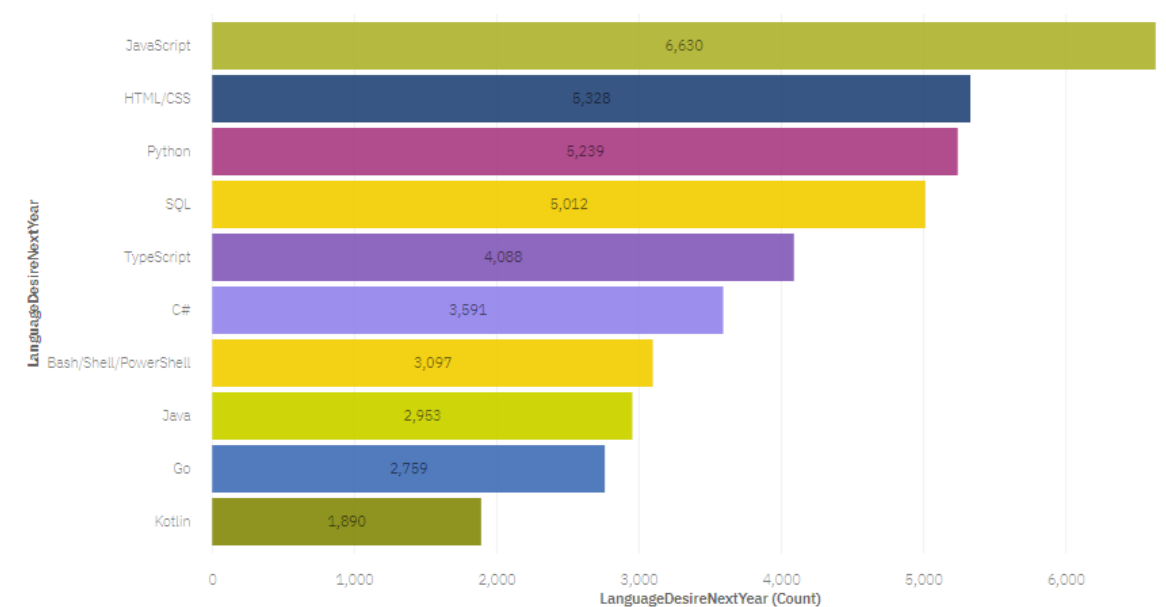
PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

Top 10 Languages Worked With

Language	Count
JavaScript	8,687
HTML/CSS	7,830
SQL	7,106
Bash/Shell/PowerShell	4,642
Python	4,542
Java	4,506
C#	4,288
TypeScript	3,232
PHP	2,913
C++	1,946

Top 10 Languages Desired Next Year

Language	Count
JavaScript	6,630
HTML/CSS	5,328
Python	5,239
SQL	5,012
TypeScript	4,088
C#	3,591
Bash/Shell/PowerShell	3,097
Java	2,953
Go	2,759
Kotlin	1,890

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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings Implications

- Java script has a higher number

- Bash has a lower number in the future

- Python is popular next year

- Typescript is important for people in the future

- C++ will be used less

- People will use web-based programming languages
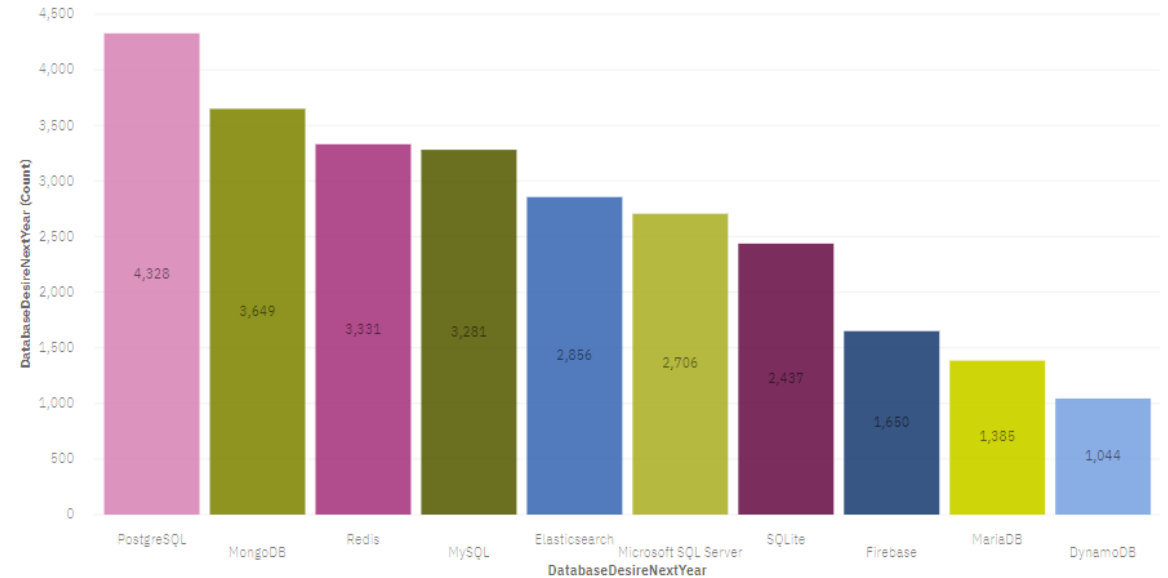
- Big Data is important for people

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DATABASE TRENDS

Current Year

Next Year

Top 10 Databases Worked With

Top 10 Databases Desired Next Year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Difference in Redis

- SQL-based ones will experience a jump

- Elasticsearch will be used more in the future

- MongoDB will be used more than before

Implications

- More people will use SQL

- MySQL will be replaced by PostgreSQL
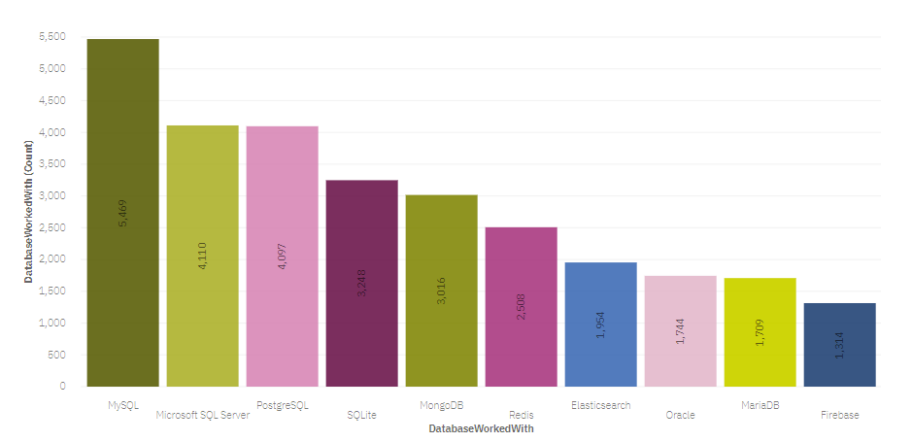
- Oracle will not be used in the future

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DASHBOARD

https://dataplatform.cloud.ibm.com/dashboards/1d864b5b-2f2a-41ed-bc39-934f908850a4/view/5439f124659f6ec312d0f6e407cc79577b347755e3bbd55785847b495e657997a8614792c828435cde165760fbb9120acf

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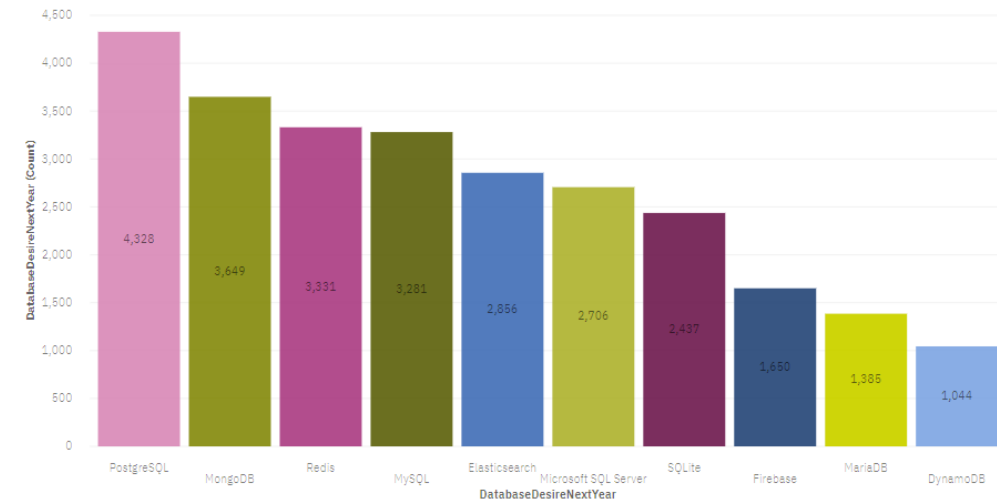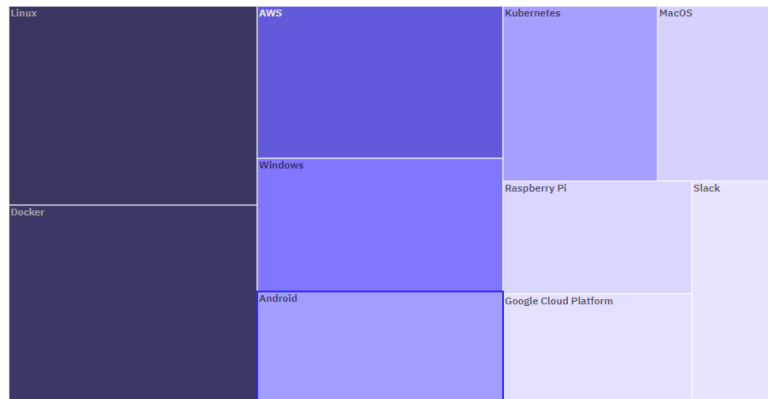**SKILLS NETWORK**
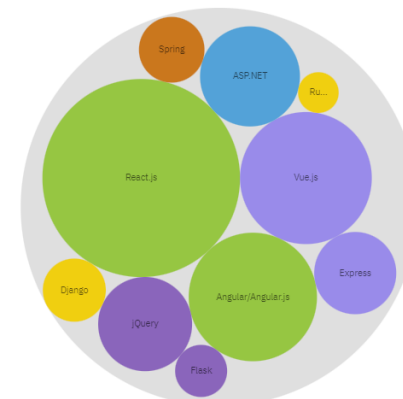
DASHBOARD TAB 1

DASHBOARD TAB 2

Top 10 Languages Desired Next Year
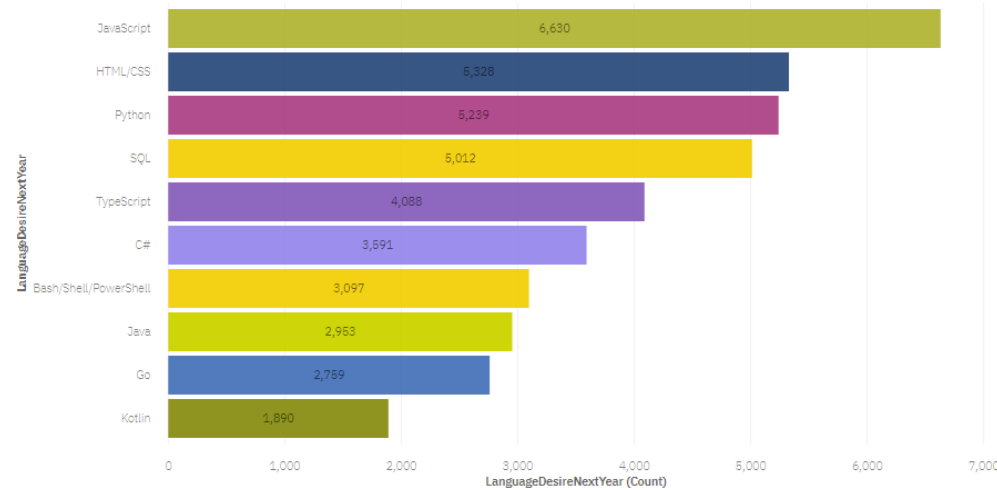
Top 10 Databases Desired Next Year

Top 10 Platforms Desired Next Year

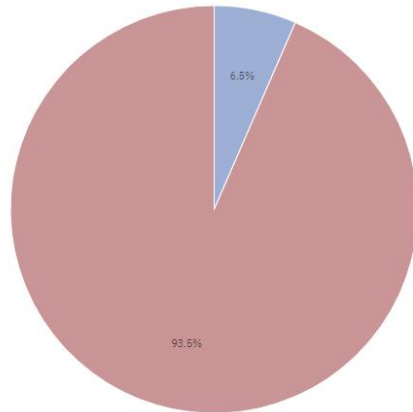Top 10 Web Frames Desired Next Year
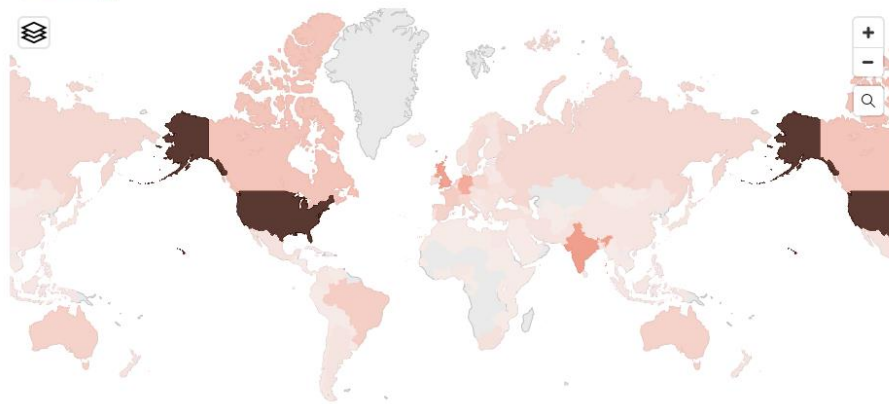
DASHBOARD TAB 3
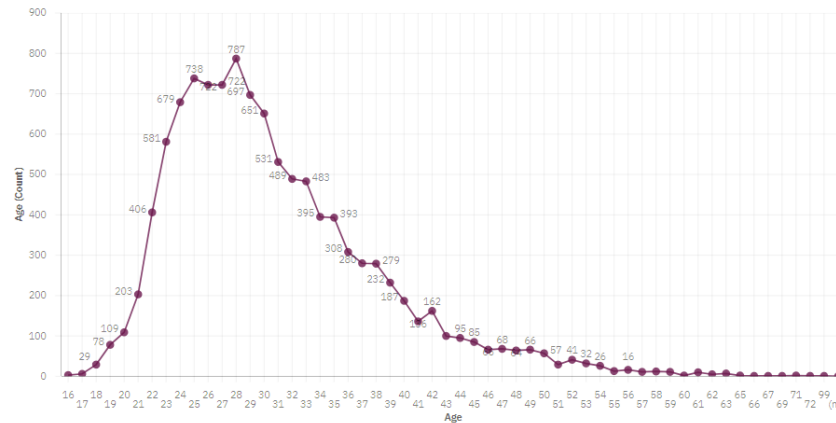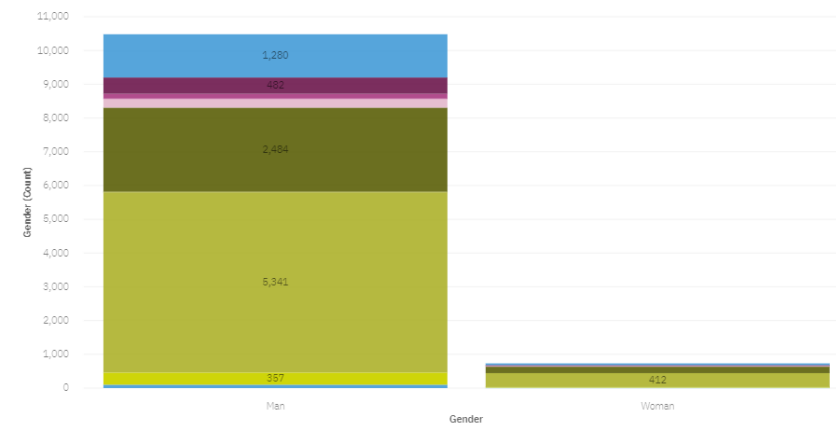
DISCUSSION

- Thanks to the data and graphs, we can further research the usage of programming languages useful in data science in the future.

- Gender should be balanced in the future

- Regarding possible discrimination in education and employment, they should be avoided

- Workers should be trained in favor of these languages

OVERALL FINDINGS & IMPLICATIONS

Findings

- SQL will be used higher
- Redis will be used more
- Those with a bachelor's degree are more interested in languages.
- Gender gap exists in such jobs
- SQL-based ones are popular in the future
- 28 is the most common age of the respondents

Implications

- SQL is better in the future
- People should improve their knowledge of programming to have more chances for finding a job
- Cloud-based ones are more popular in the future
- Companies should be adjustable regarding these changes in work environments

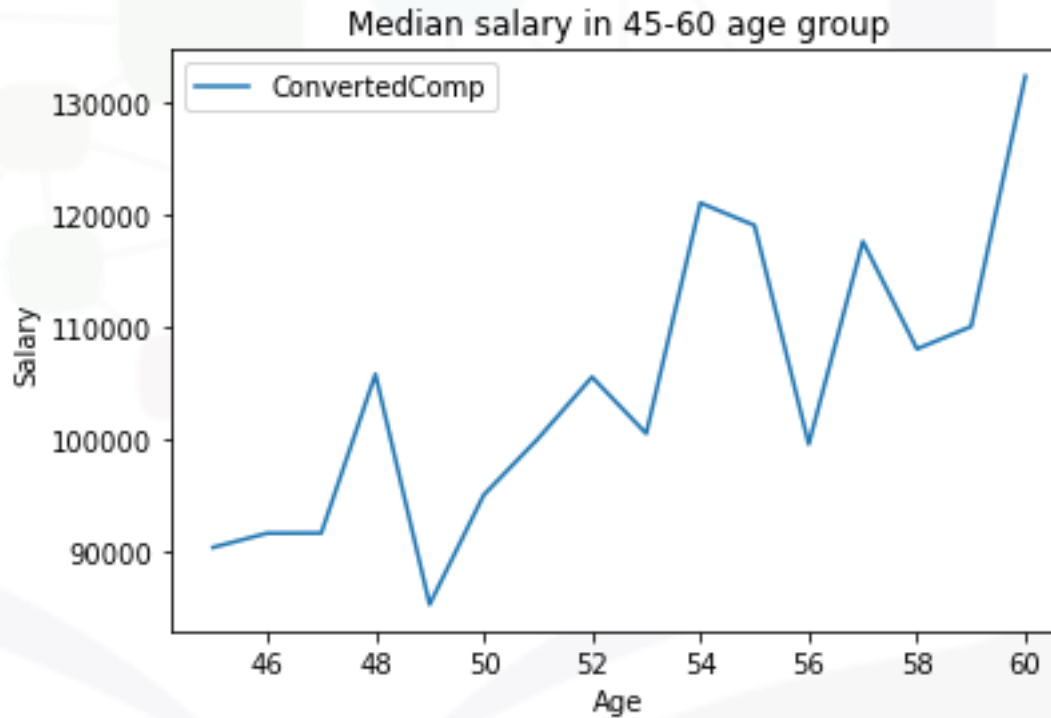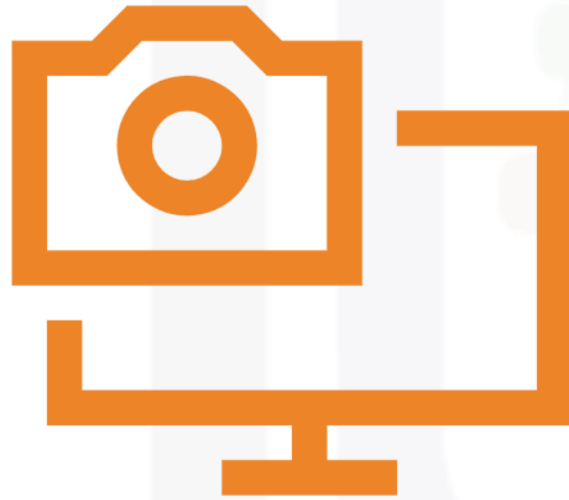**IBM Developer**

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CONCLUSION

- Programming languages in data science will be used more in the future

- SQL will help people in the future

- Gender gap exists

- People should take steps to change some discriminations

- There are different trends for databases and programming languages in this year and the next year
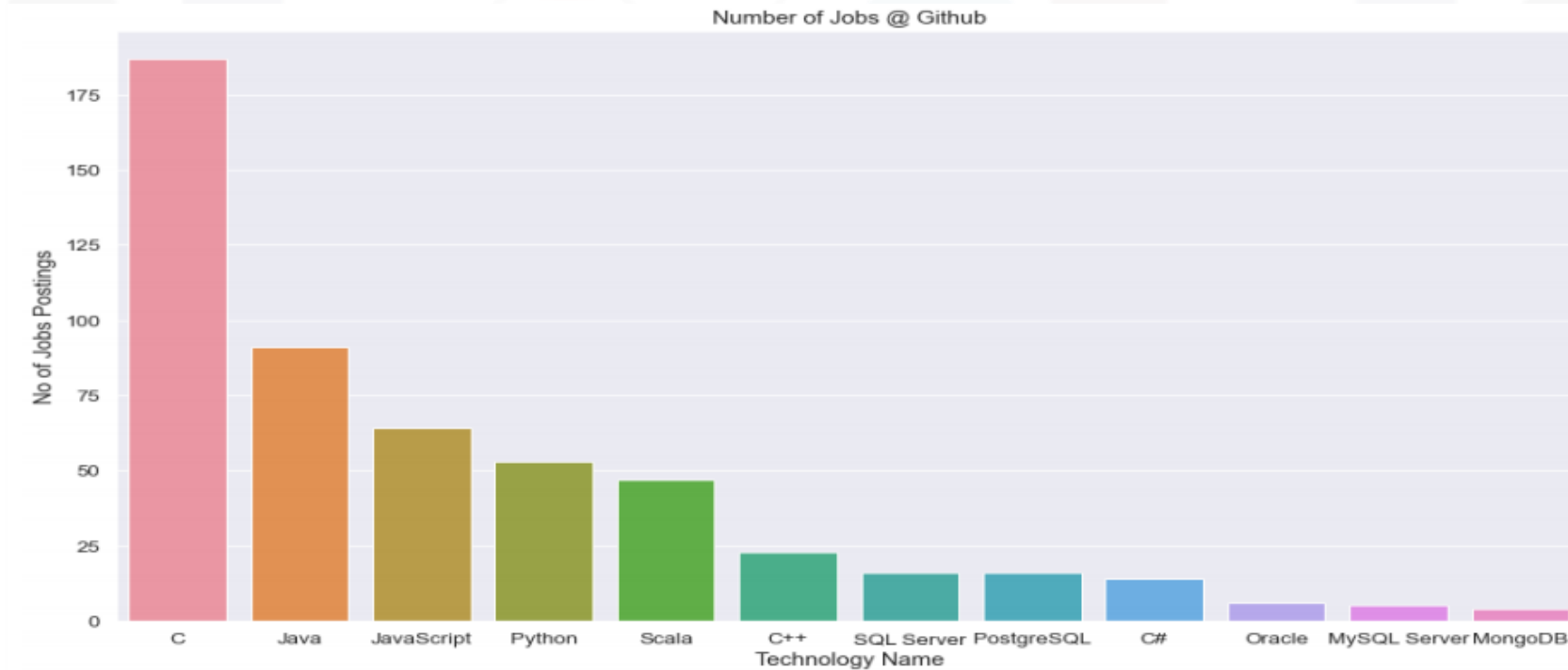
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APPENDIX

- Salaries people 45 – 60 may gain

Median salary in 45-60 age group

GITHUB JOB POSTINGS

Number of Jobs @ Github

POPULAR LANGUAGES