



# Analysis of Technology Trends

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2024-08-13

# OUTLINE

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

# EXECUTIVE SUMMARY

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

# INTRODUCTION

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- **Overview:** A study on current software development trends.
- **Objectives:**
  - Identify the skills that will be required in the future.
  - Determine the most in-demand programming languages.
  - Discover the top database skills sought after in the industry.
  - Identify the most popular Integrated Development Environments (IDEs) used.
- **Intended Audience:** Human Resource managers and IT department heads.

# METHODOLOGY

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- Data Collection Sources
  - Stack Overflow Developer 2019 Survey
  - GitHub Job Postings
  - Programming Languages Annual Salary
- Data Exploration
- Data Cleaning
- Data Visualization
- Presentation

# RESULTS

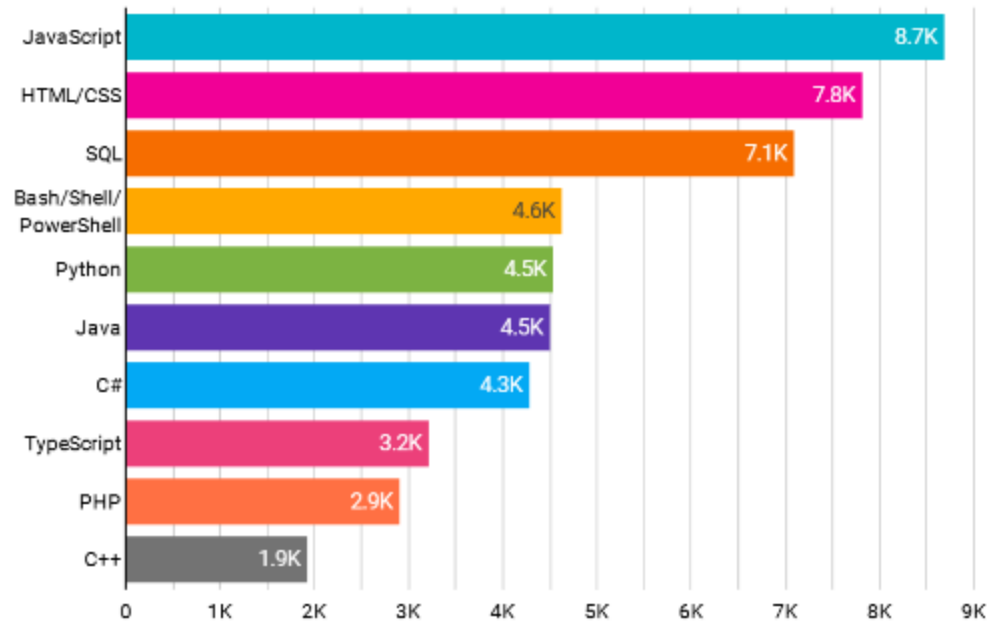
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# PROGRAMMING LANGUAGE TRENDS

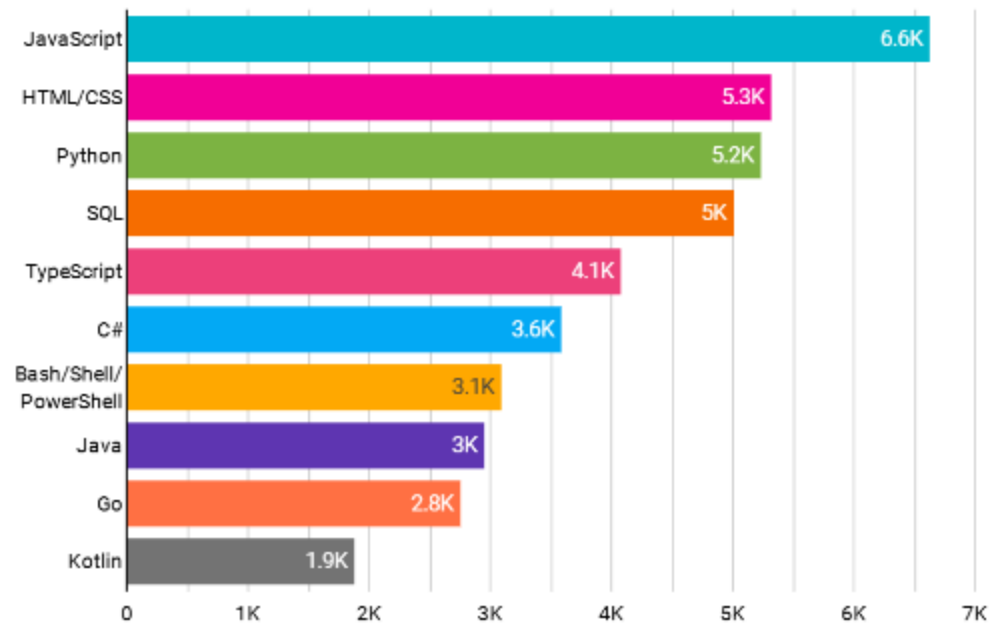
## Current Year

Top 10 Languages Worked With



## Next Year

Top 10 Languages Desire Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript & HTML still growing
- Python is growing in popularity

## Implications

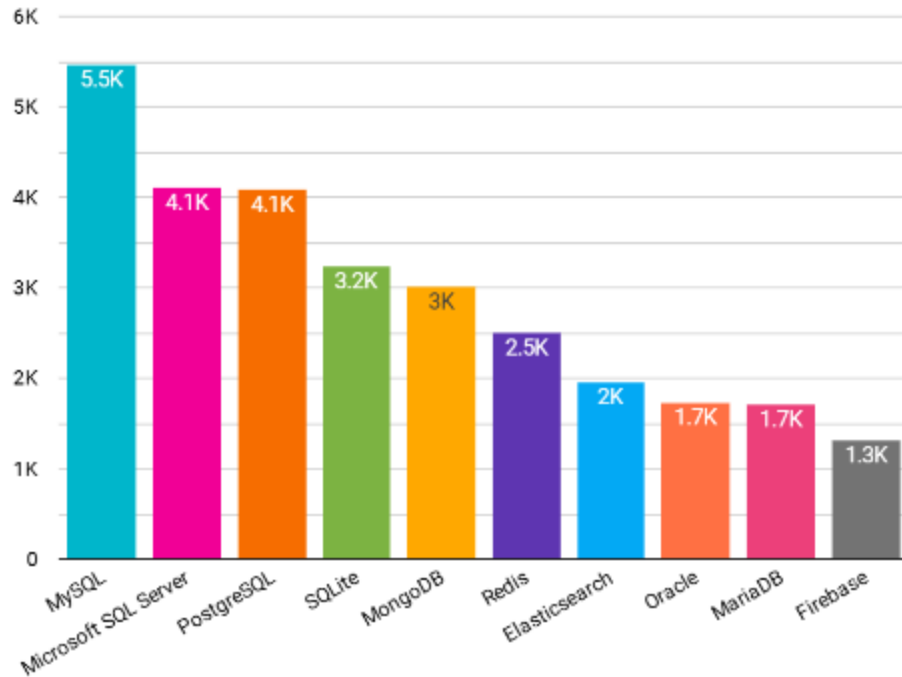
- Web development remains highly sought after.
- Big Data technologies in companies continue to rely on SQL.
- With the increasing demand for AI and ML, Python is the optimal choice.



# DATABASE TRENDS

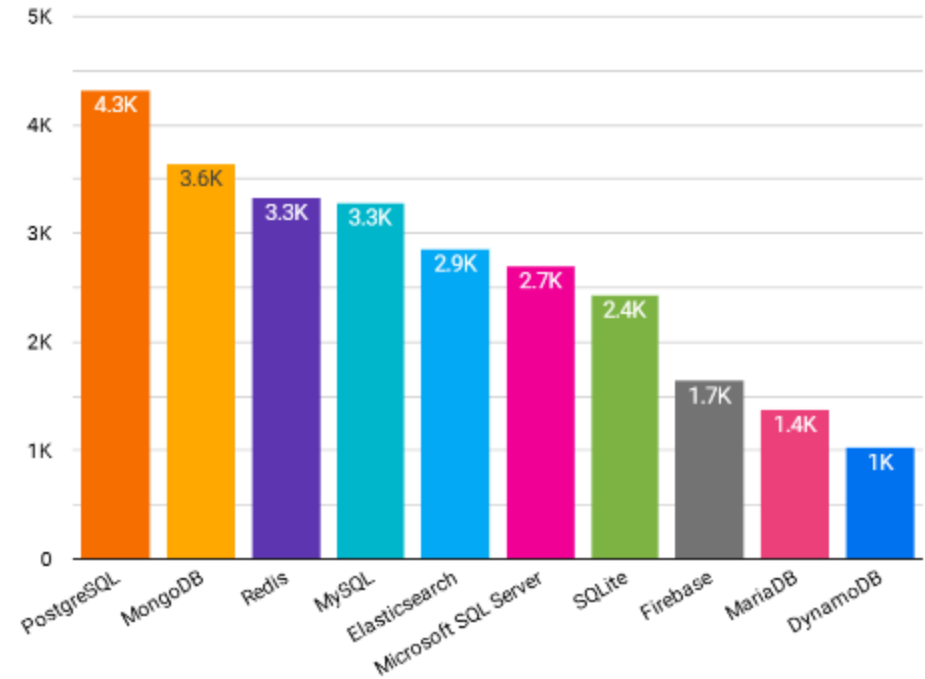
## Current Year

Top 10 DataBase Worked With



## Next Year

Top 10 DataBase Desire Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL most popular
- MongoDB and Redis are the next upcoming
- Newcomer: Elasticsearch

## Implications

- Companies still prefer open-source databases.
- NoSQL databases are poised to significantly impact the storage of non-relational data.
- Redis offers support for abstract data types.
- Pre-tuned search capabilities enhance website applications and e-commerce stores.

# DASHBOARD

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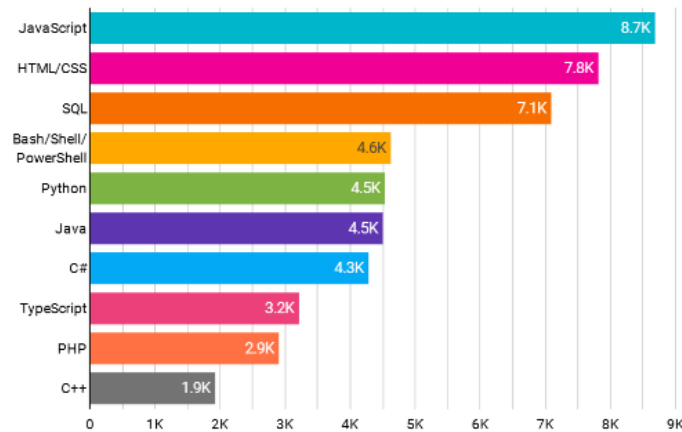


[https://github.com/eloidall/Coursera/blob/main/Simple\\_Dashboard.pdf](https://github.com/eloidall/Coursera/blob/main/Simple_Dashboard.pdf)

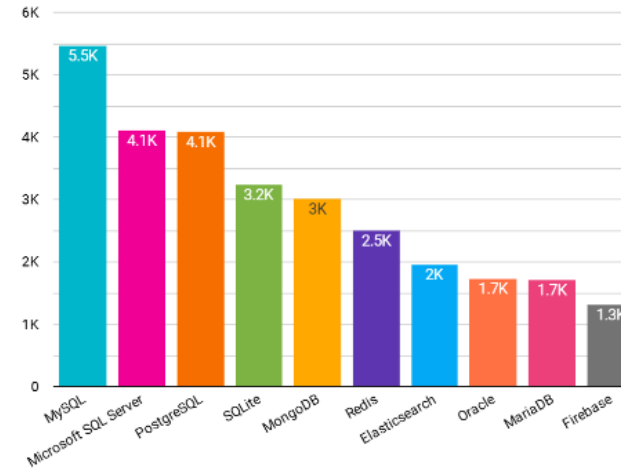
# DASHBOARD TAB 1

Screenshot c

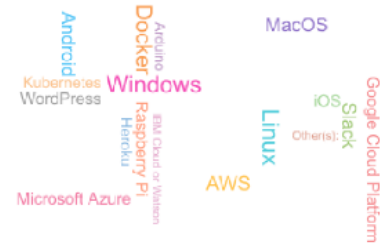
Top 10 Languages Worked With



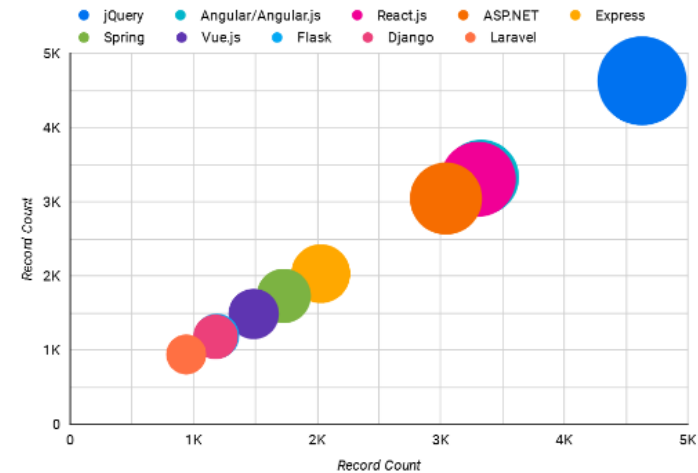
Top 10 DataBase Worked With



Top Platforms Worked With



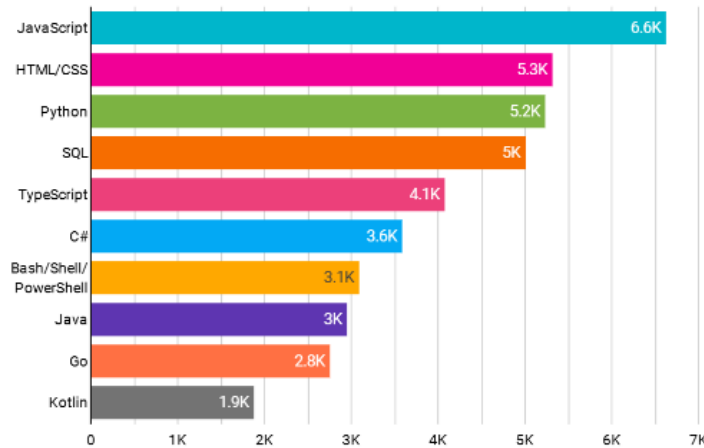
Top 10 WebFrame Worked With



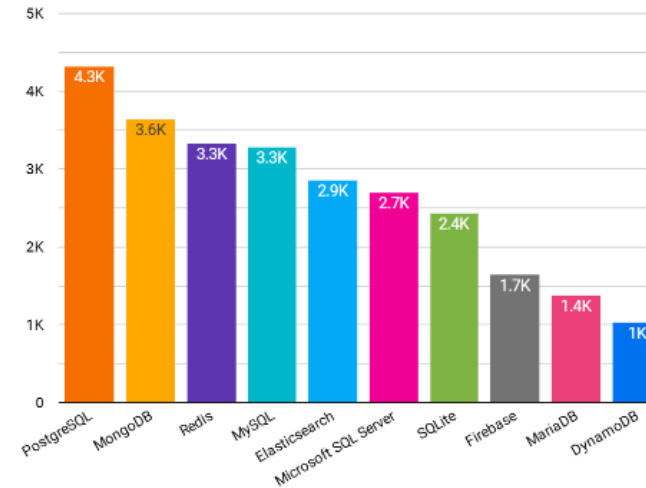
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Screenshot

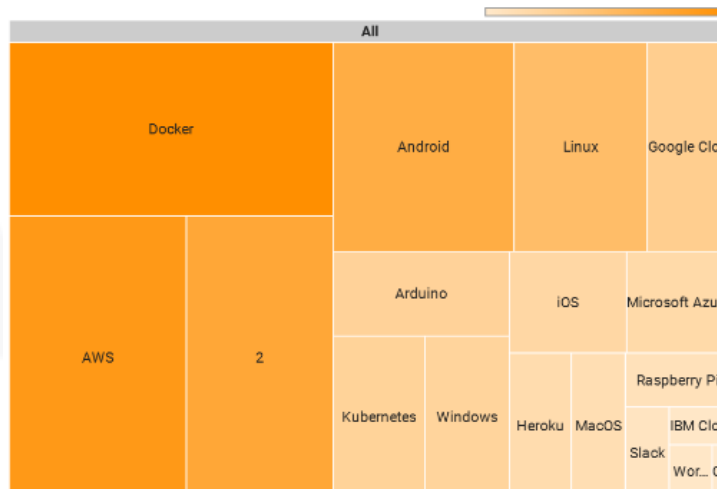
Top 10 Languages Desire Next Year



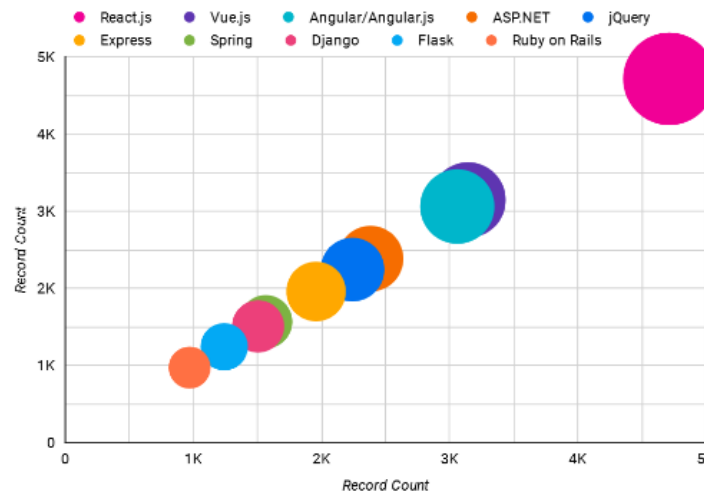
Top 10 DataBase Desire Next Year



Treemap of Platform Desire Next Year



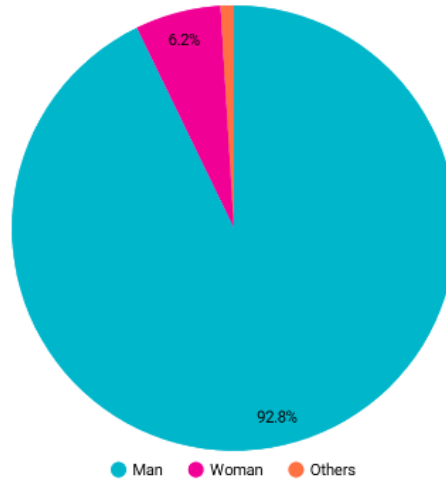
Top 10 WebFrame Desire Next Year



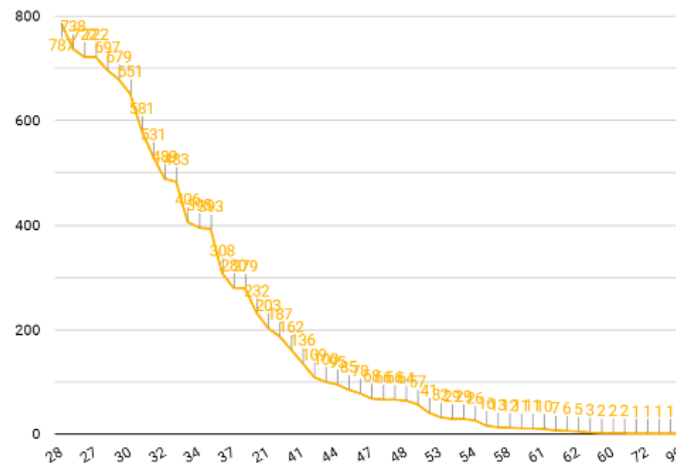
# DASHBOARD TAB 3

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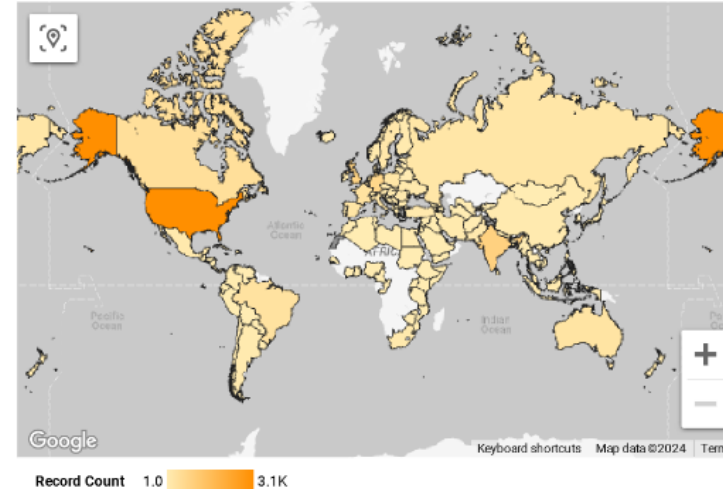
Respondent Classified by Gender



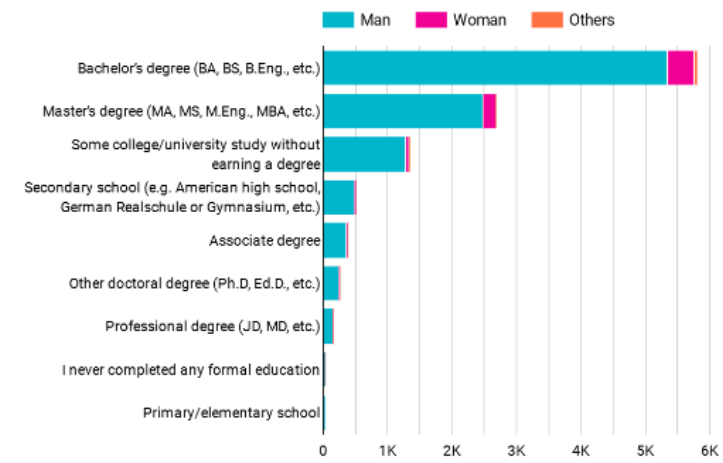
Respondent by Age



Respondent Count by Countries



Respondent Count by Gender, classified by Formal Education Level



# DISCUSSION

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- Emphasizing the importance of training and reskilling the workforce.
- Encouraging greater female participation in the technology sector.
- Bridging the technological gaps in developing countries.
- Addressing and removing age and education discrimination in the workplace

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Rapid annual advancements in fast-charging technology.
- Significant focus on markets such as the USA and India.
- Persistent gender gap in technology employment.
- Increasing adoption of platforms like Docker and AWS

## Implications

- Companies must remain adaptable to swift technological shifts.
- A push is needed to distribute technology to countries that are behind.
- These trends influence hiring practices.
- A movement towards quicker app deployment and enhanced cloud services is expected



# CONCLUSION

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- Overview of programming languages, databases, and platforms.
- Analysis of demographic data.
- Recommended actions to implement.
- Future integration of machine learning to forecast trends and salaries

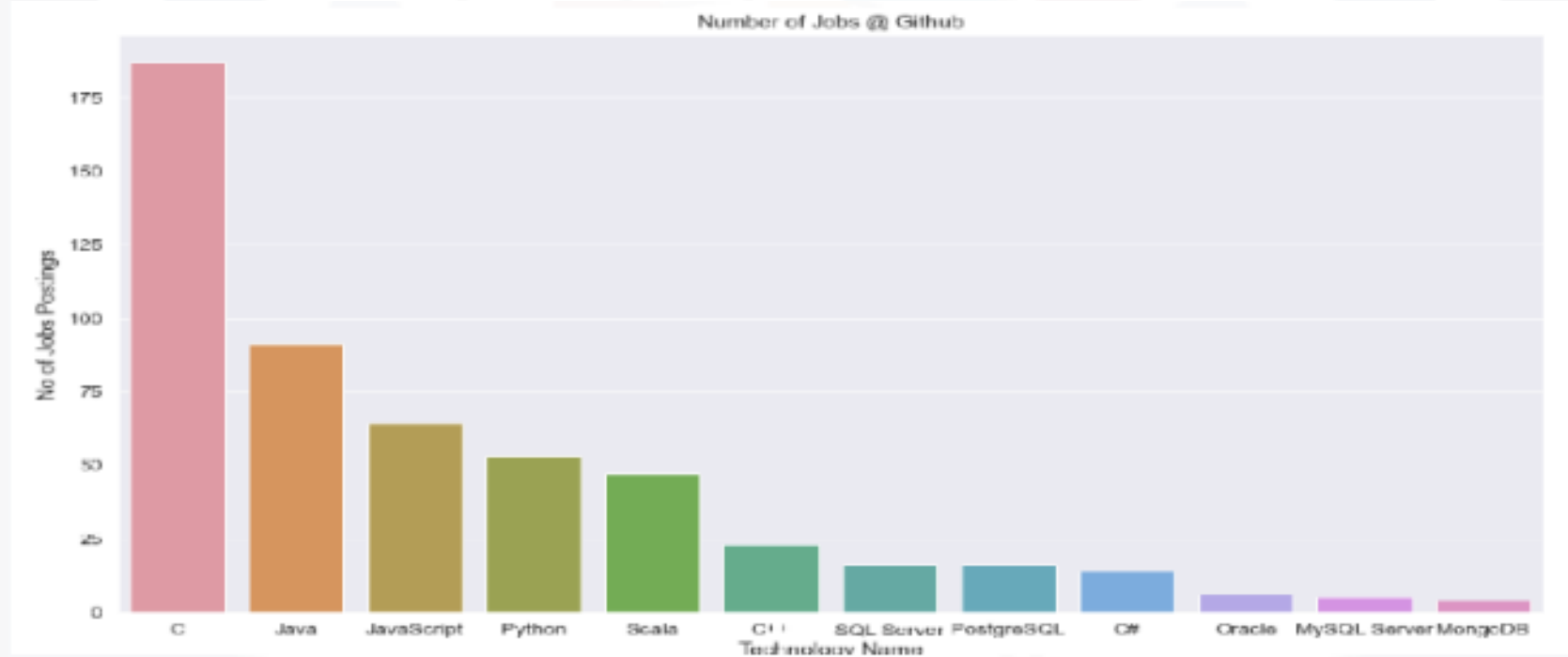
# APPENDIX

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- Include any relevant additional charts, or tables that you may have created during the analysis phase.

# JOB POSTINGS



# POPULAR LANGUAGES

