Programming Languages

Gal Shuler

25/07/2021

OUTLINE

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

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

METHODOLOGY

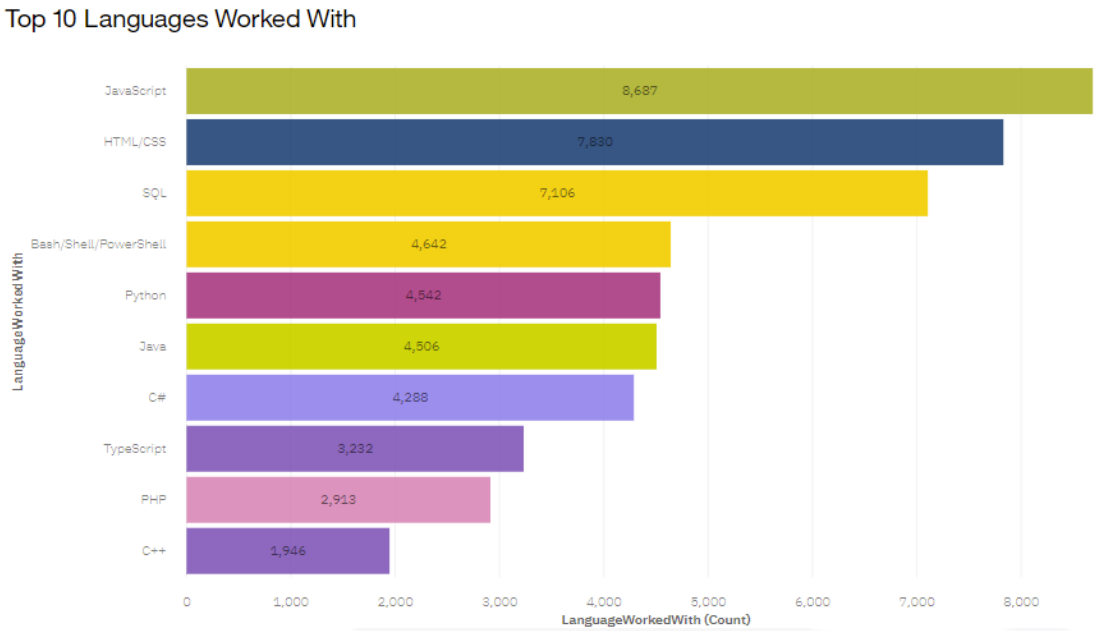
- Data Collection
- Data Cleaning
- Data Exploration
- Visualization
- Presentation

RESULTS

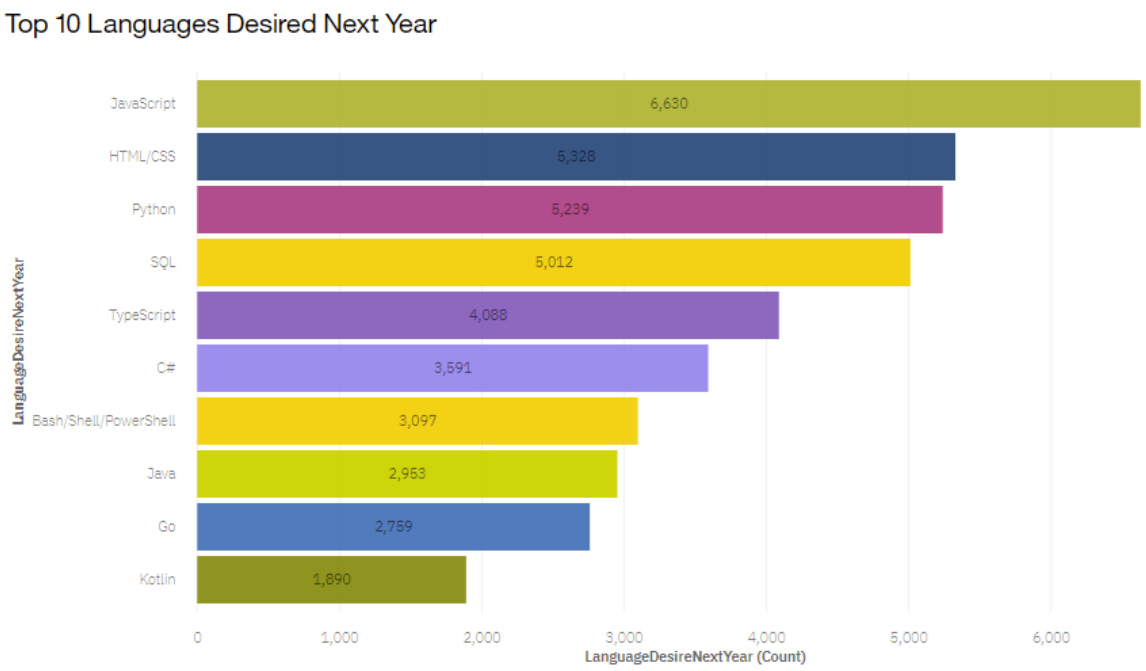
Almost all countries and people will use programming languages in the future.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



IBM Developer

SKILLS NETWORK

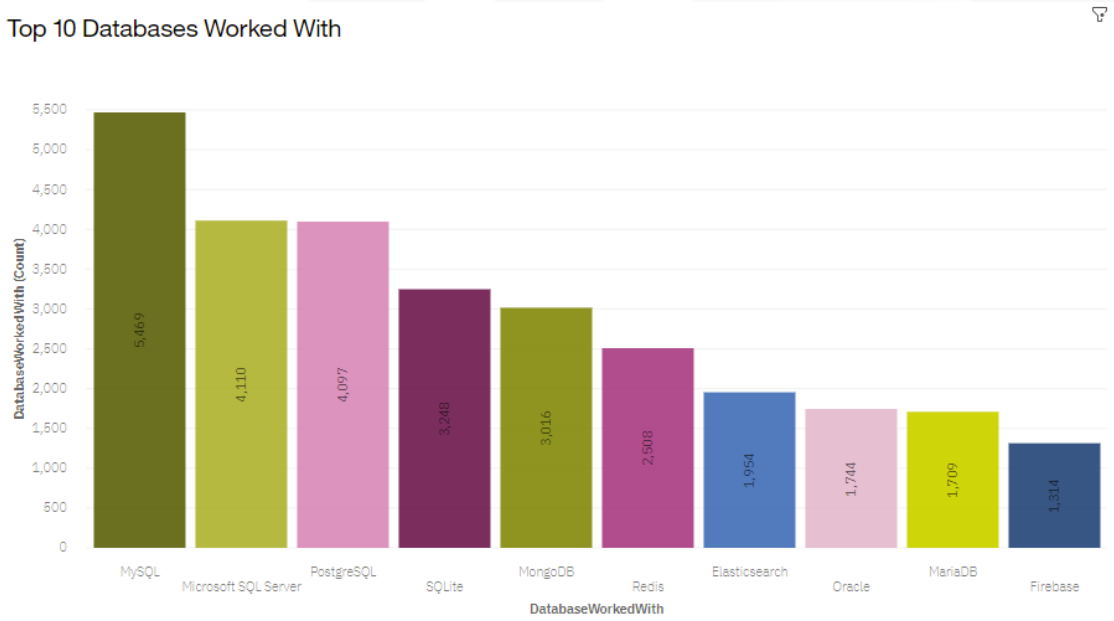
PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings Implications

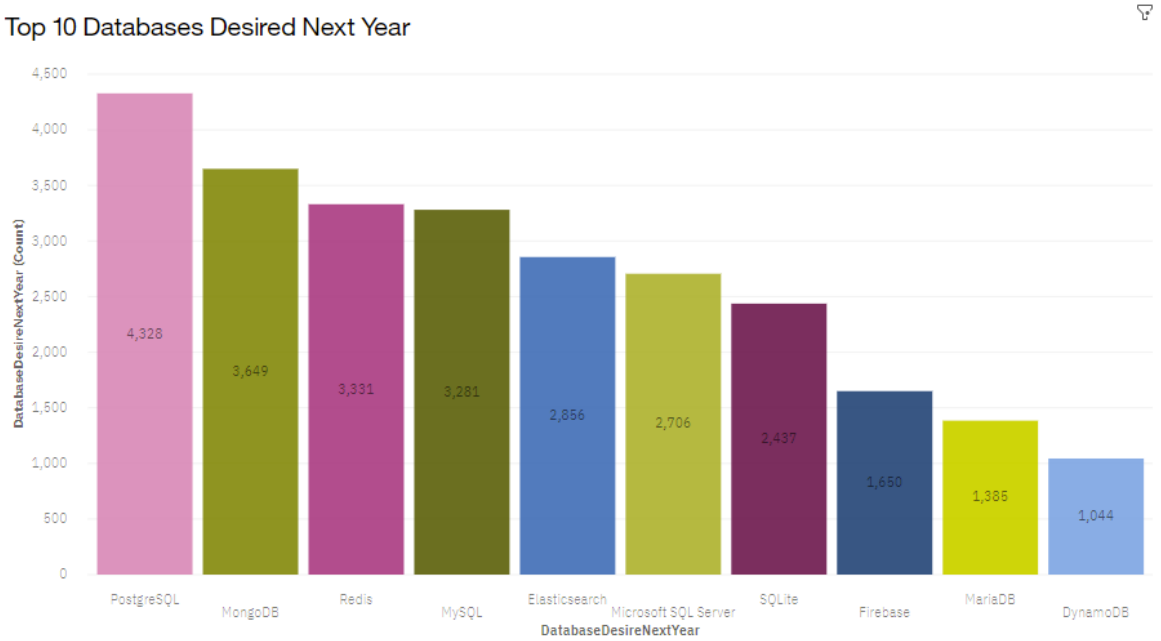
- JavaScript has a higher number
- Bash has a lower number in the future
- Python is popular next year
- Typescript is important for people in the future
- C++ will be used less
- People will use web-based programming languages
- Big Data is important for people

DATABASE TRENDS

Current Year



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

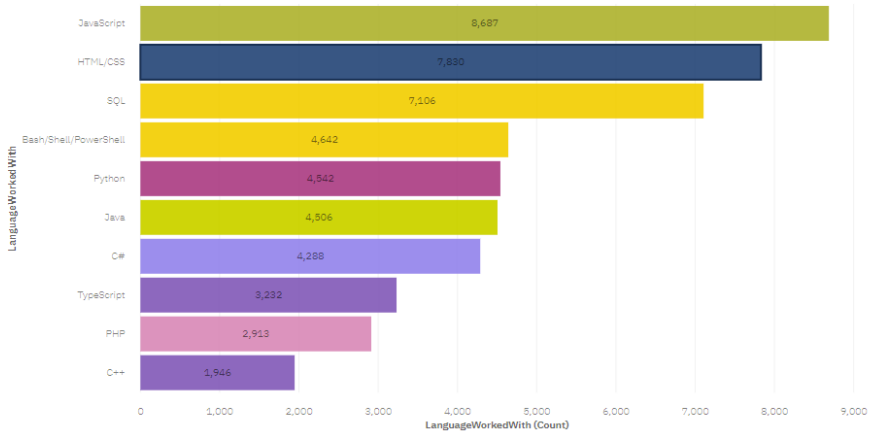
- More people will use SQL
- MySQL will be replaced by PostgreSQL
- Oracle will not be used in the future

DASHBOARD

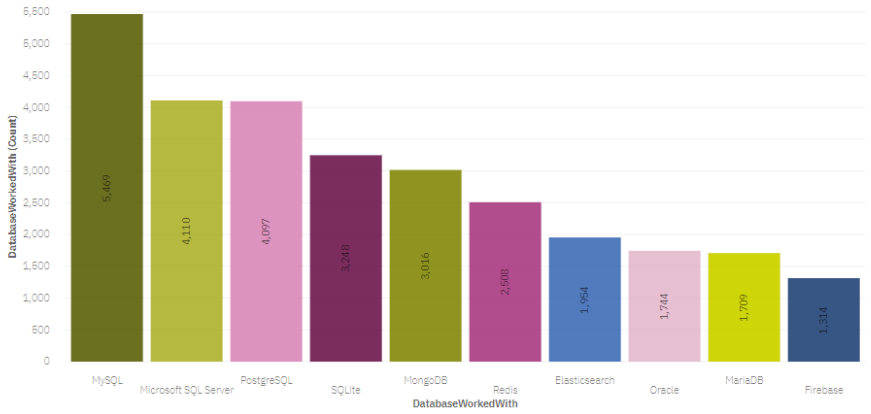
https://dataplatform.cloud.ibm.com/dashboards/1d864b5b-2f2a-41ed-bc39-934f908850a4/view/5439f124659f6ec312d0f6e407cc79577b347755e3bbd55785847b495e657997a8614792c828435cde165760fbb9120acf

DASHBOARD TAB 1

Top 10 Languages Worked With

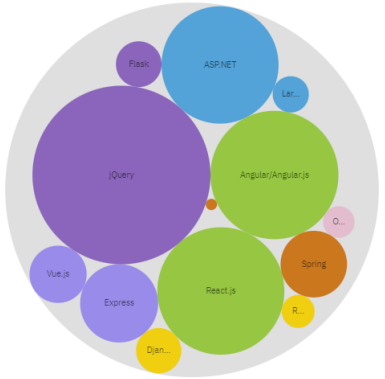


Top 10 Databases Worked With



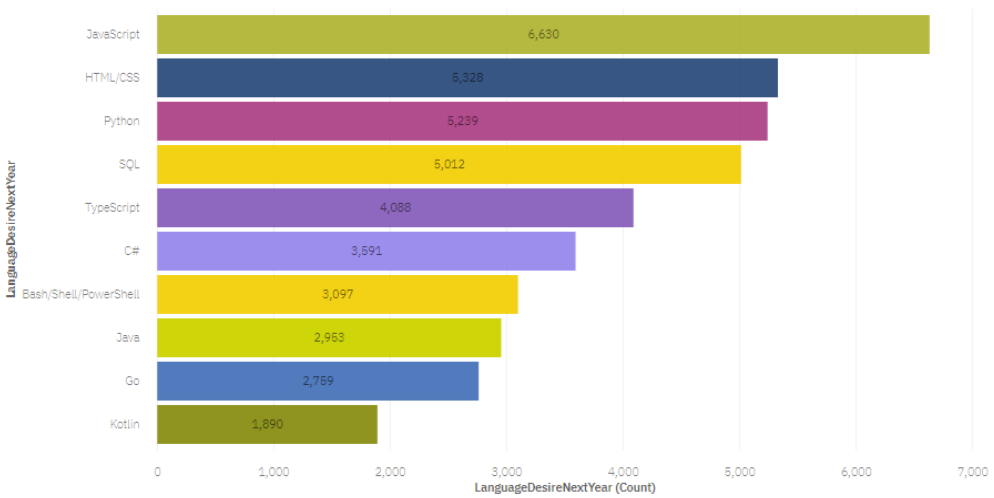
Platforms Worked With

Top 10 Web Frames Worked With

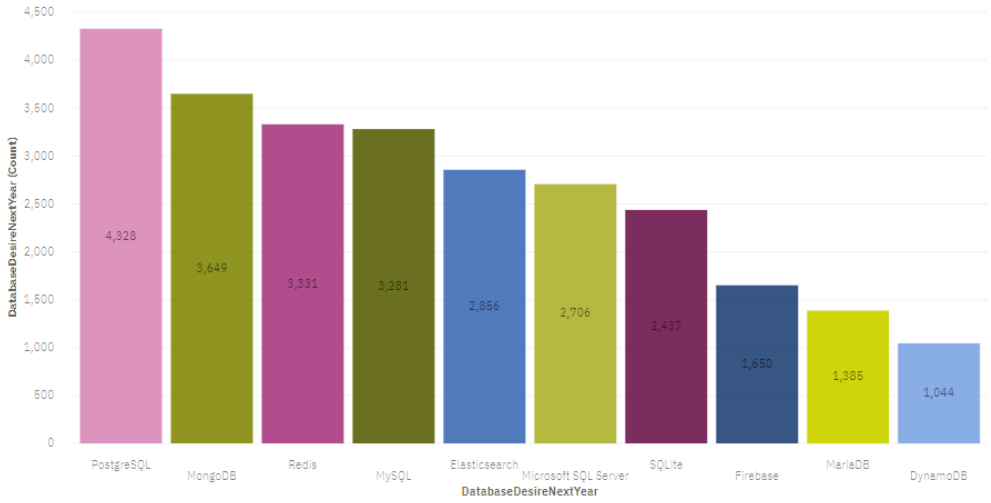


DASHBOARD TAB 2

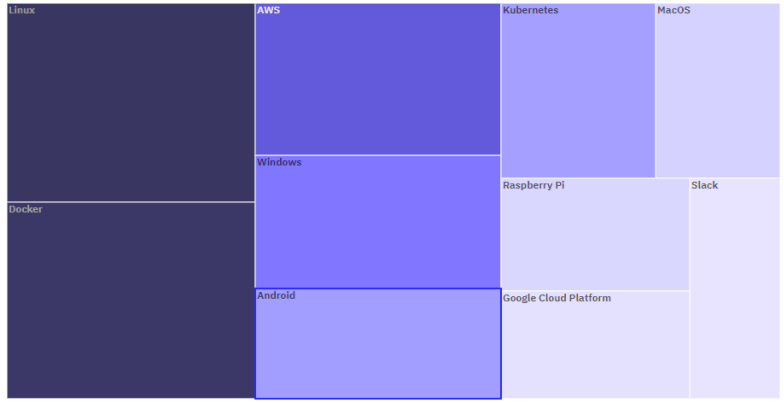
Top 10 Languages Desired Next Year



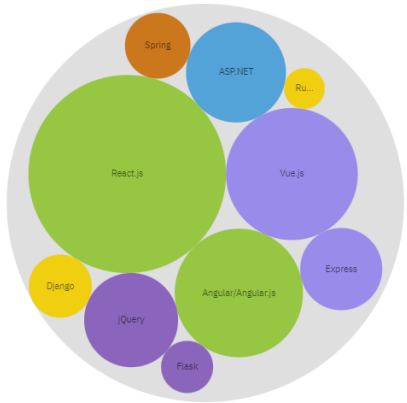
Top 10 Databases Desired Next Year



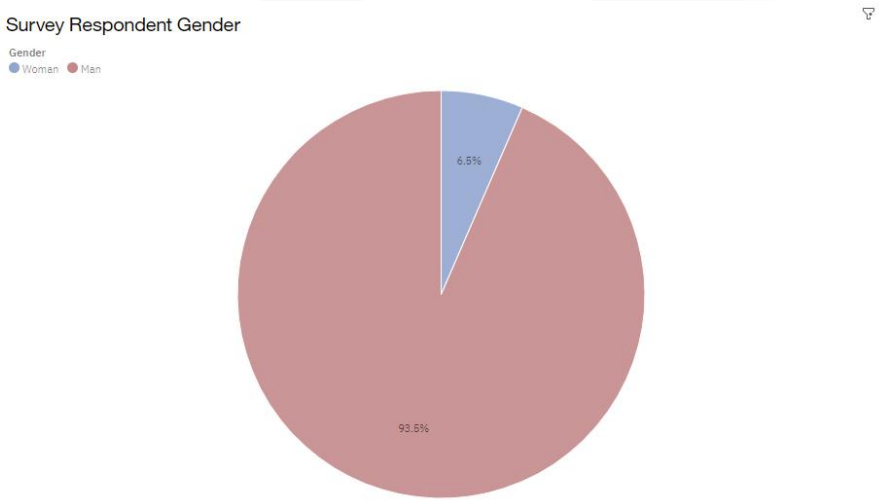
Top 10 Platforms Desired Next Year

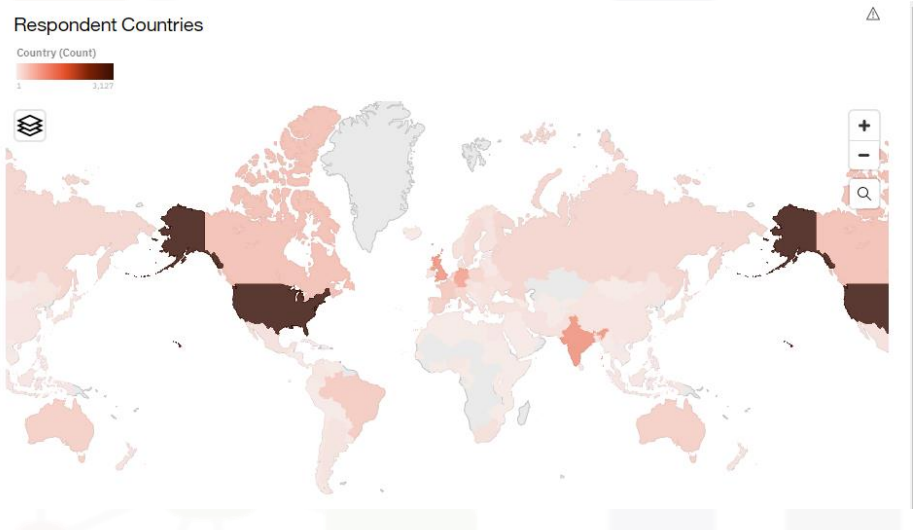


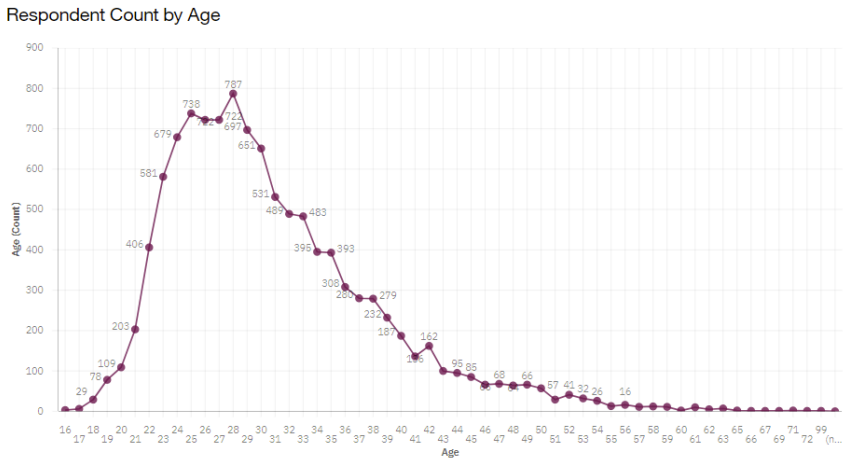
Top 10 Web Frames Desired Next Year

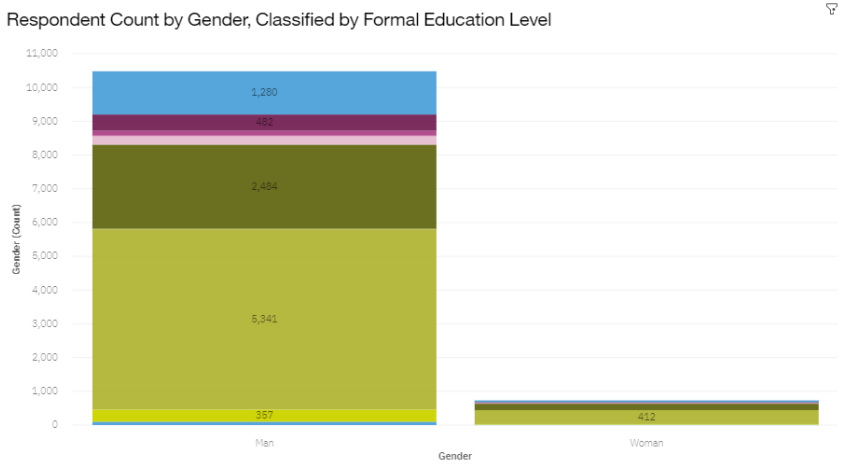


DASHBOARD TAB 3









IBM Developer

SKILLS NETWORK

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

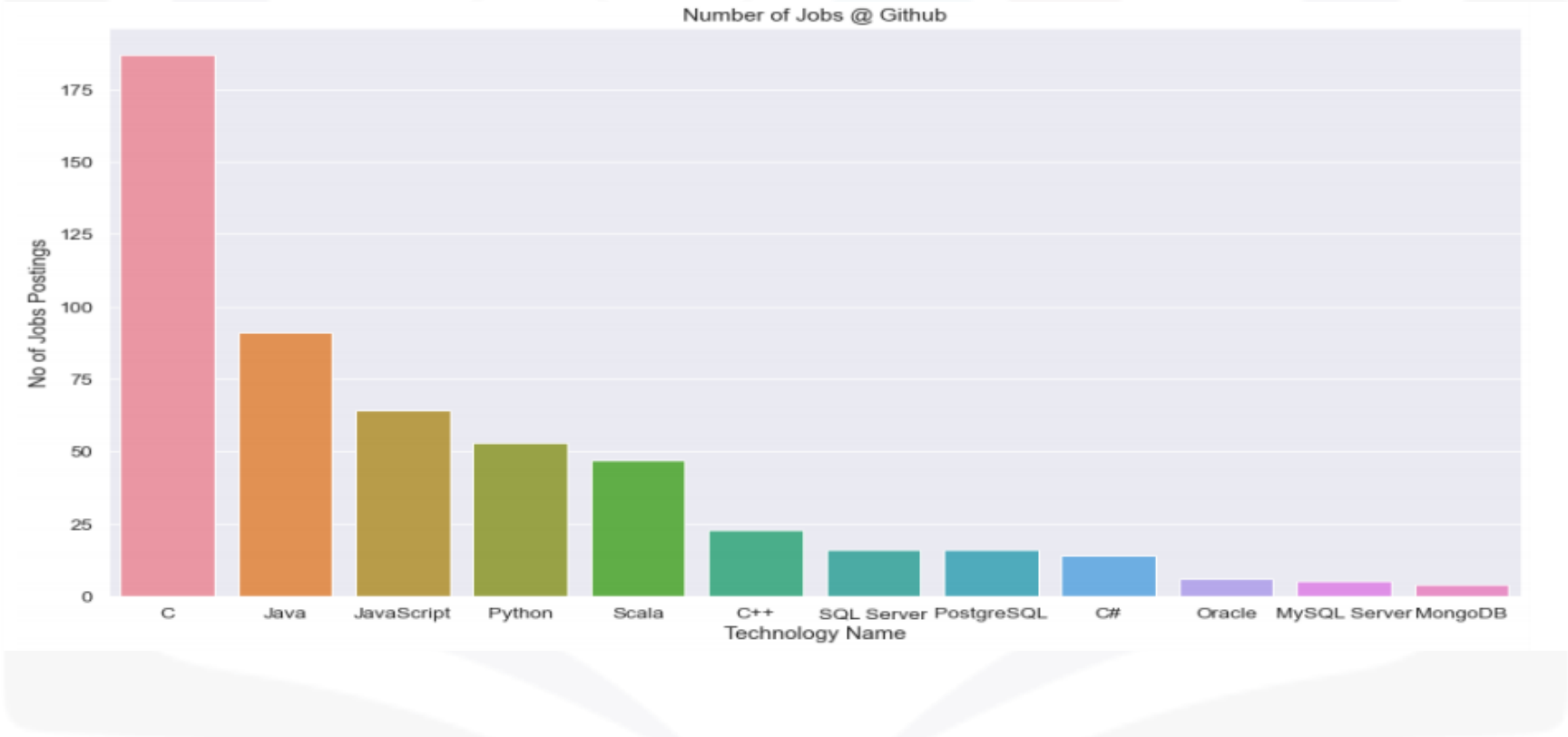
CONCLUSION

- 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

APPENDIX

- Salaries people 45 – 60 may gain

GITHUB JOB POSTINGS



POPULAR LANGUAGES