



Analysis of Changing Technologies and In Demand IT Skills in the Job Market

Oluwatoyin Ademarati
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OUTLINE

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



EXECUTIVE SUMMARY



- ❑ This presentation shows current Technologies based on the following:
 - ❑ Programming Languages Used
 - ❑ Platform Used
 - ❑ Database Used
 - ❑ WebFrame Used
- ❑ Future Technologies Trending Based on :
 - ❑ Languages Used
 - ❑ Platform Used
 - ❑ Database Used
 - ❑ WebFrame Used
- ❑ Demography of Respondent

INTRODUCTION

This is a presentation of the result of analysis based on changing technologies and in-demand IT skills in the IT job market. Dataset was generated from survey done on StackOverflow.

Over 11,000 respondent took part in the survey and the analysis of the findings are put together in this presentation



METHODOLOGY



- Web scraping : This technique was used to retrieve the survey information from StackOverflow website
- Data Wrangling : This is the process of cleaning the data set and ensuring that it is analysis ready. Python is the major tool used here. Data was first imported as a dataframe. Missing data were removed or replace, duplicates and unrealistic data were removed using python methods
- Data analysis: was carried out using python pandas library.
- Visualization on IBM Cognos use of bars, columns, bubble charts etc

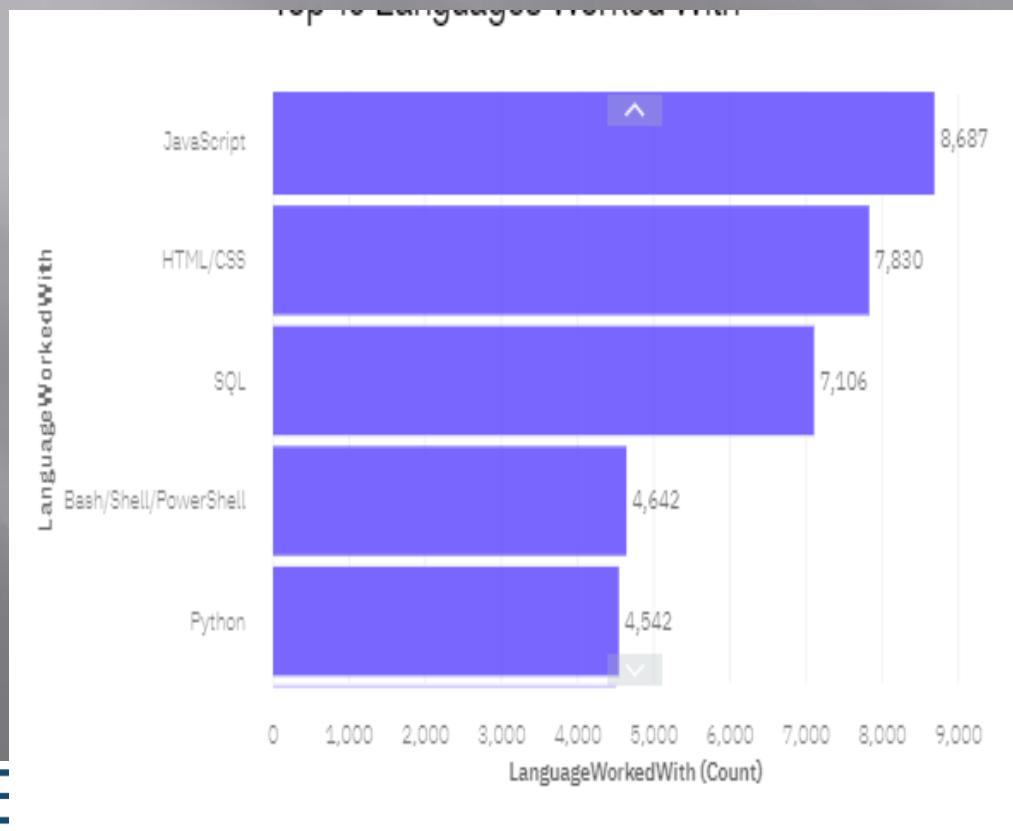
RESULTS

We shall then see the results of the analysis

PROGRAMMING LANGUAGE TRENDS

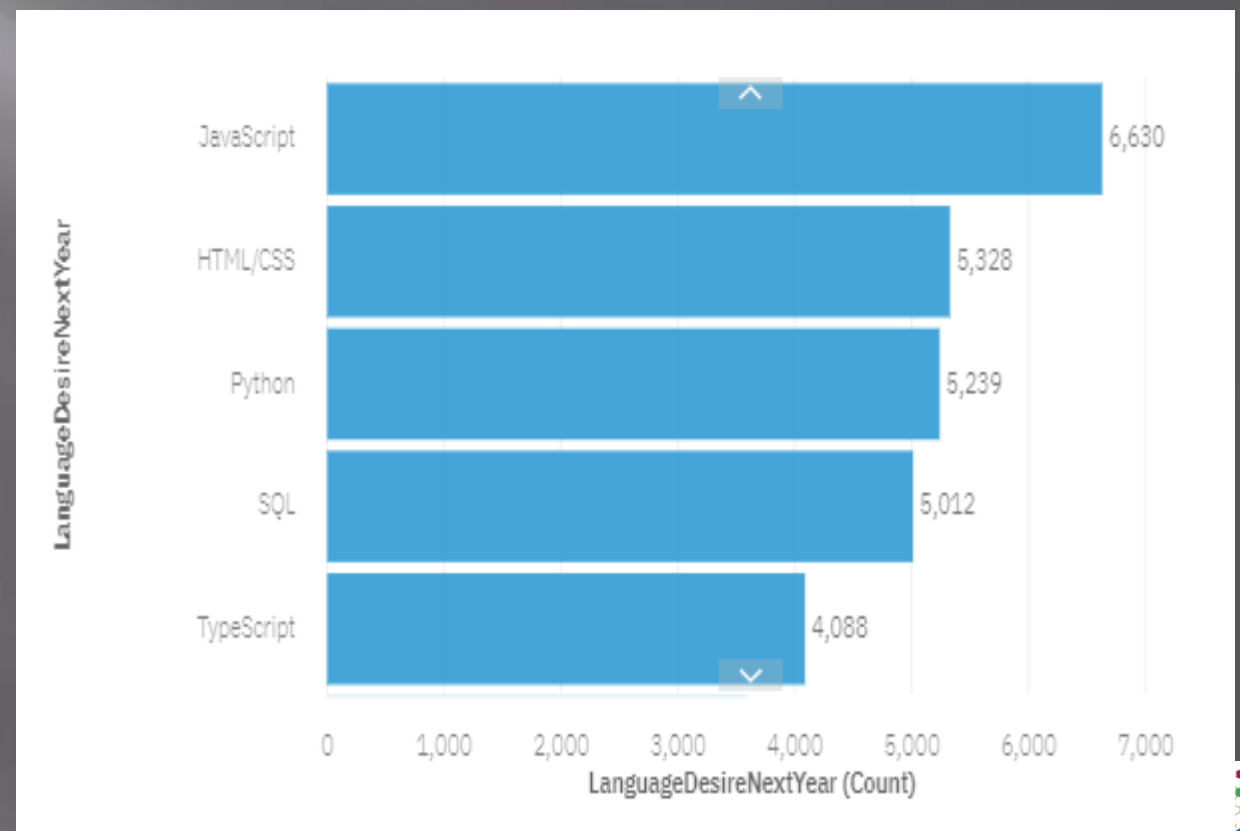
Current Year

Bar chart of top 5 Programming Languages for the current year



Next Year

Bar chart of top 5 Programming Languages for the next year



PROGRAMMING LANGUAGE TRENDS

- FINDINGS & IMPLICATIONS

Findings

- ▣ Top 5 programming Languages for the current Year are : Javascript , HTML/CSS, SQL, Bash/Shell/Powershell and Python.
- ▣ Top 5 programming Languages for the next Year are : Javascript, HTML/CSS, Python , SQL and TypeScript

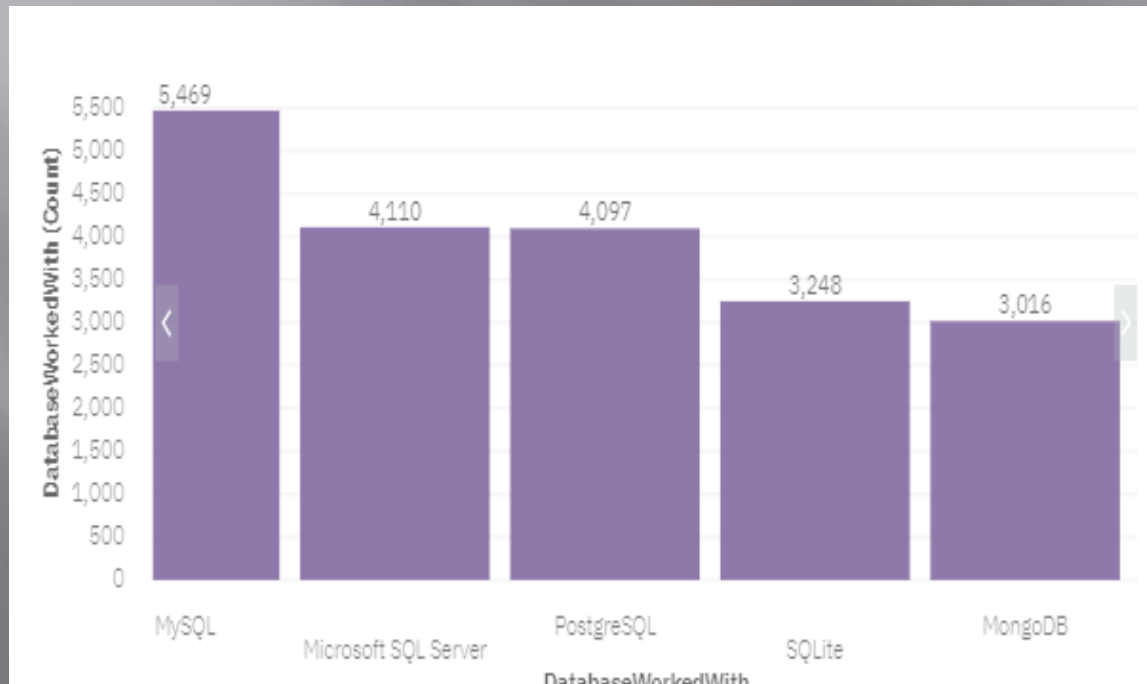
Implications

- ▣ Javascript, HTML and CSS remain the widely used programming language even in the coming year
- ▣ Typescript is going to be more popularly used in the next year
- ▣ More programmers will be dropping the use of Bash/Shell/Powershell for their jobs

DATABASE TRENDS

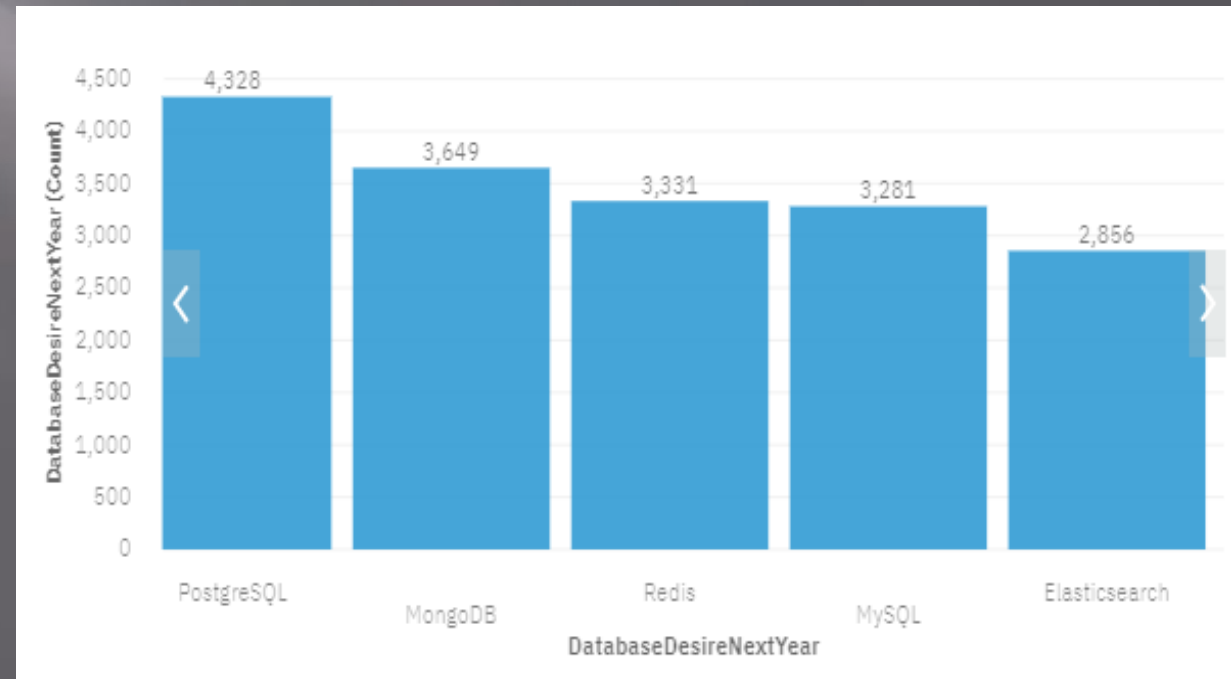
Current Year

Bar chart of top 5 databases for the current year



Next Year

Bar chart of top 5 databases for the next year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- ▣ Top 5 Databases for the current Year are : MySQL, Microsoft SQL Server, PostgreSQL, SQLite and MongoDB
- ▣ Top 5 Databases for the next Year are : PostgreSQL, MongoDB, Redis, MySQL and ElasticSearch

Implications

- ▣ MySQL, PostgreSQL and MongoDB remain the most widely used databases even in the next year
- ▣ Redis and ElasticSearch are going to be more popularly used in the next year
- ▣ Microsoft SQL Server and SQLite are going to be used less in the next year making

DASHBOARD



<https://dataplatfom.cloud.ibm.com/dashboards/362a2152-f84d-4cea-98b8-70081f42ddb0/view/4e22f92d0c8f3bf56ce1c4e407cb290079662d0ce7bb830ad2d07b495a697297f06047c2c87a195cd8145665f1ec140b9b>

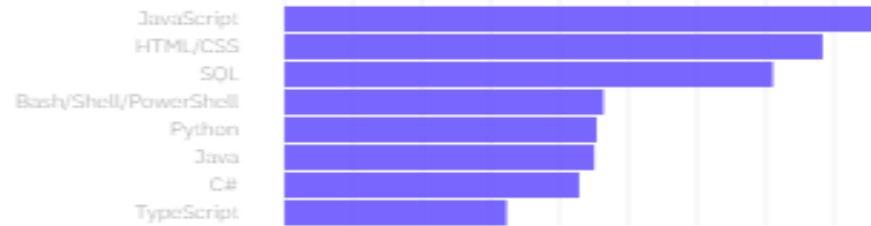
DASHBOARD TAB 1

Current Technology Usage

Future Technology Trend

Demographics

Top 10 Languages Worked With



Top 10 Databases Worked With

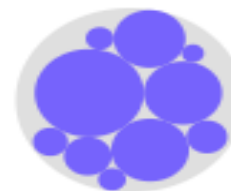


Platform Worked With



Top 10 WebFrames Worked With

WebFrameWorke...



DASHBOARD TAB 2

Current Technology Usage

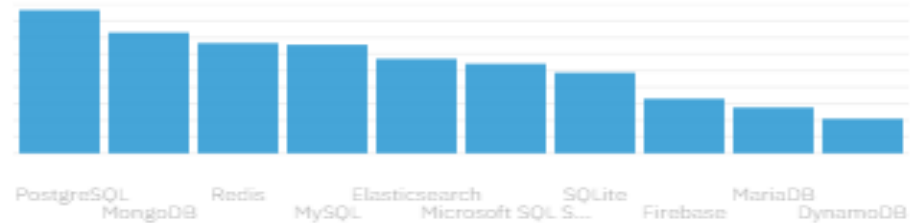
Future Technology Trend

Demographics

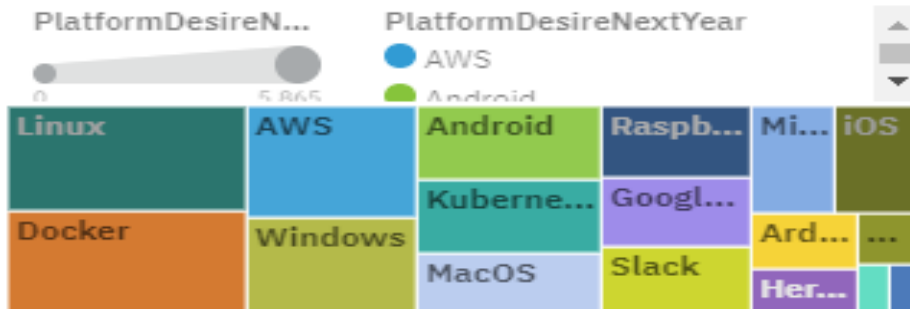
Top 10 Languages Desire Next Year



Top 10 Databases Desire Next Year



Platforms Desire Next Year



Top 10 WebFrames Desire Next Year



DASHBOARD TAB 3

Current Technology Usage

Future Technology Trend

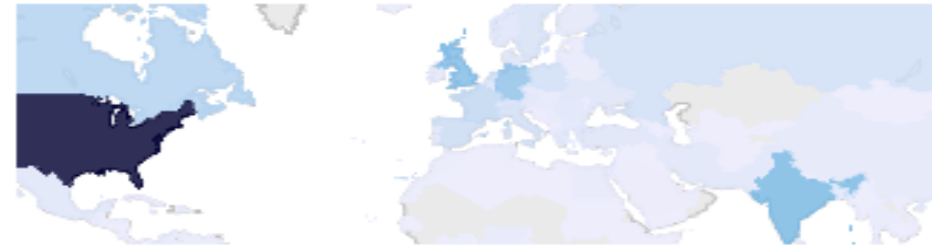
Demographics

Respondent classified by Gender

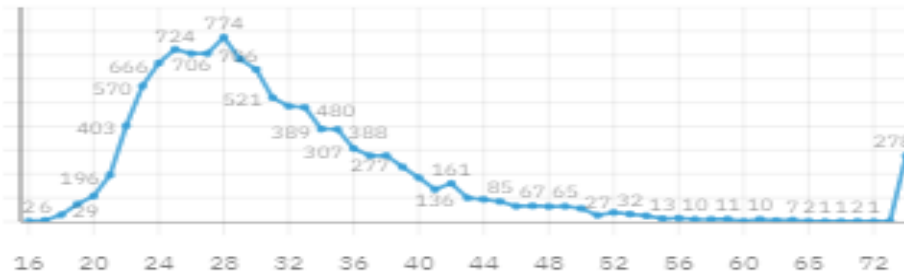
Gender
● Man
● Woman



Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



- ▣ What are the top programming languages in demand?
- ▣ What are the top database skills in demand?
- ▣ What are the popular IDEs?

OVERALL FINDINGS & IMPLICATIONS

Findings

- ▣ Top 5 programming Languages for the current Year are : Javascript , HTML/CSS, SQL, Bash/Shell/Powershell and Python.
- ▣ Top 5 programming Languages for the next Year are : Javascript, HTML/CSS, Python , SQL and TypeScript
- ▣ Top 5 Databases for the current Year are : MySQL, Microsoft SQL Server, PostgreSQL, SQLite and MongoDB
- ▣ Top 5 Databases for the next Year are : PostgreSQL, MongoDB, Redis, MySQL and ElasticSearch

Implications

- ▣ Javascript, HTML and CSS remain the widely used programming language even in the coming year
- ▣ Typescript is going to be more popularly used in the next year
- ▣ More programmers will be dropping the use of Bash/Shell/Powershell for their jobs
- ▣ MySQL, PostgreSQL and MongoDB remain the most widely used databases even in the next year
- ▣ Redis and ElasticSearch are going to be more popularly used in the next year
- ▣ Microsoft SQL Server and SQLite are going to be used less in the next year making

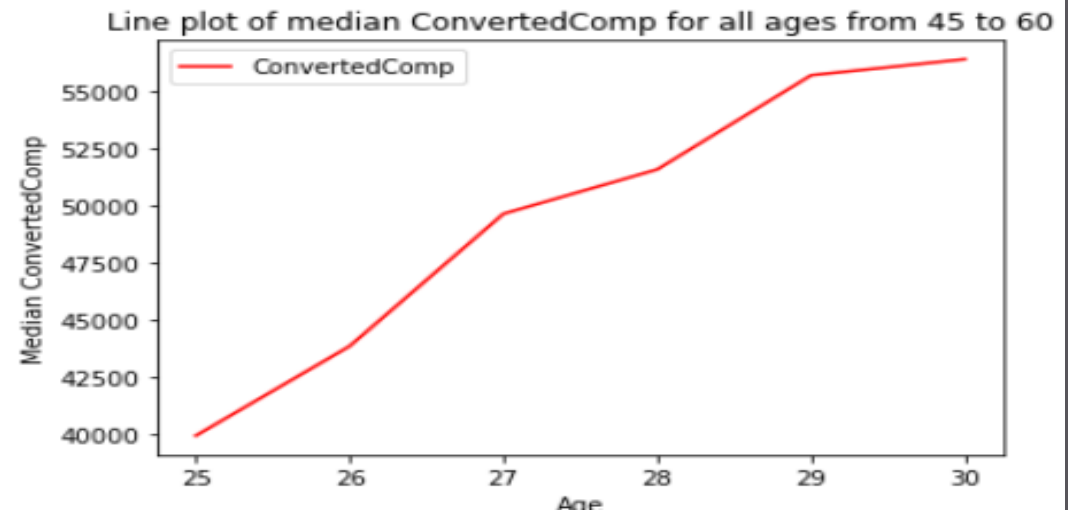
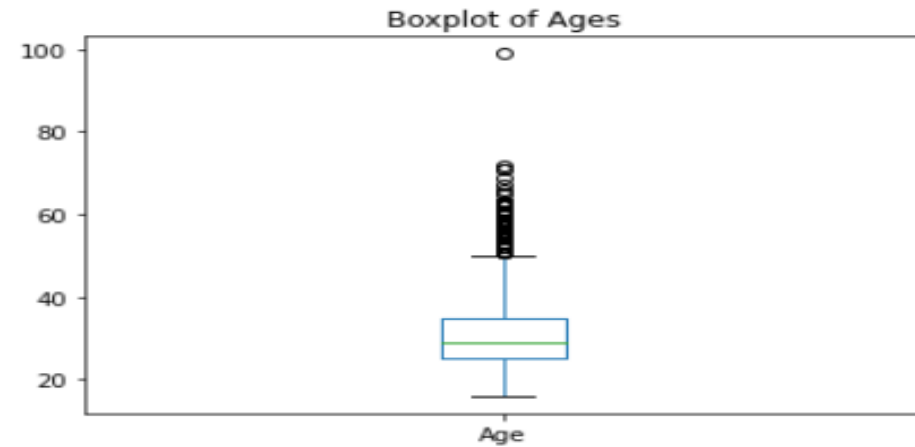
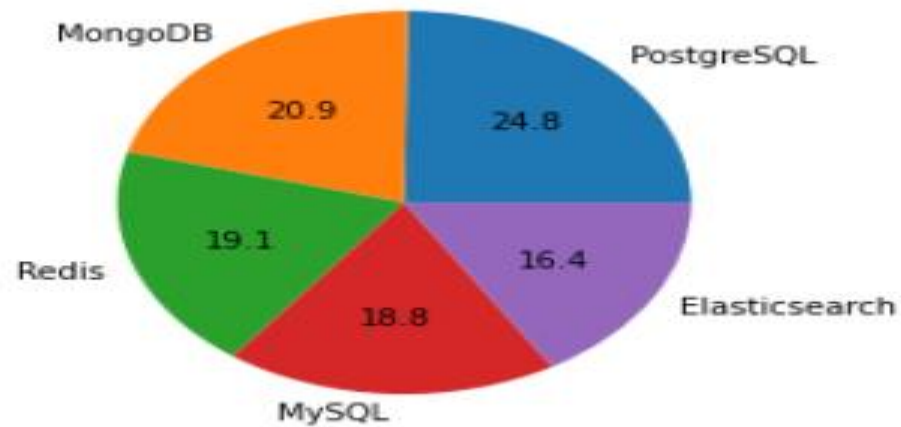
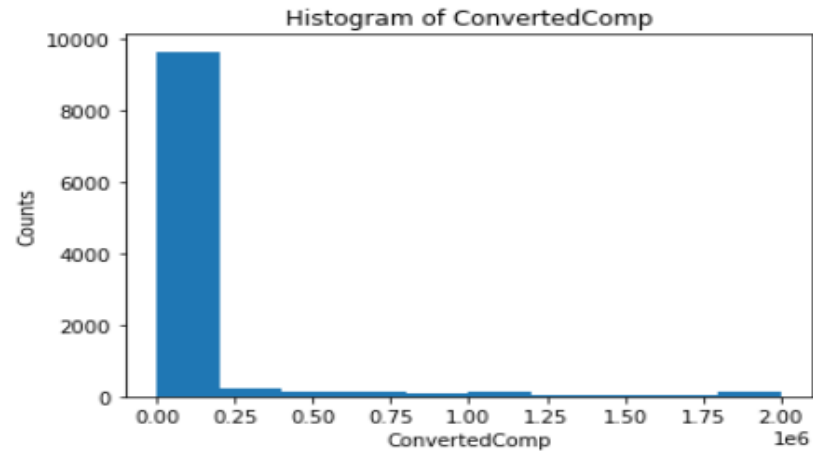
CONCLUSION

In conclusion,

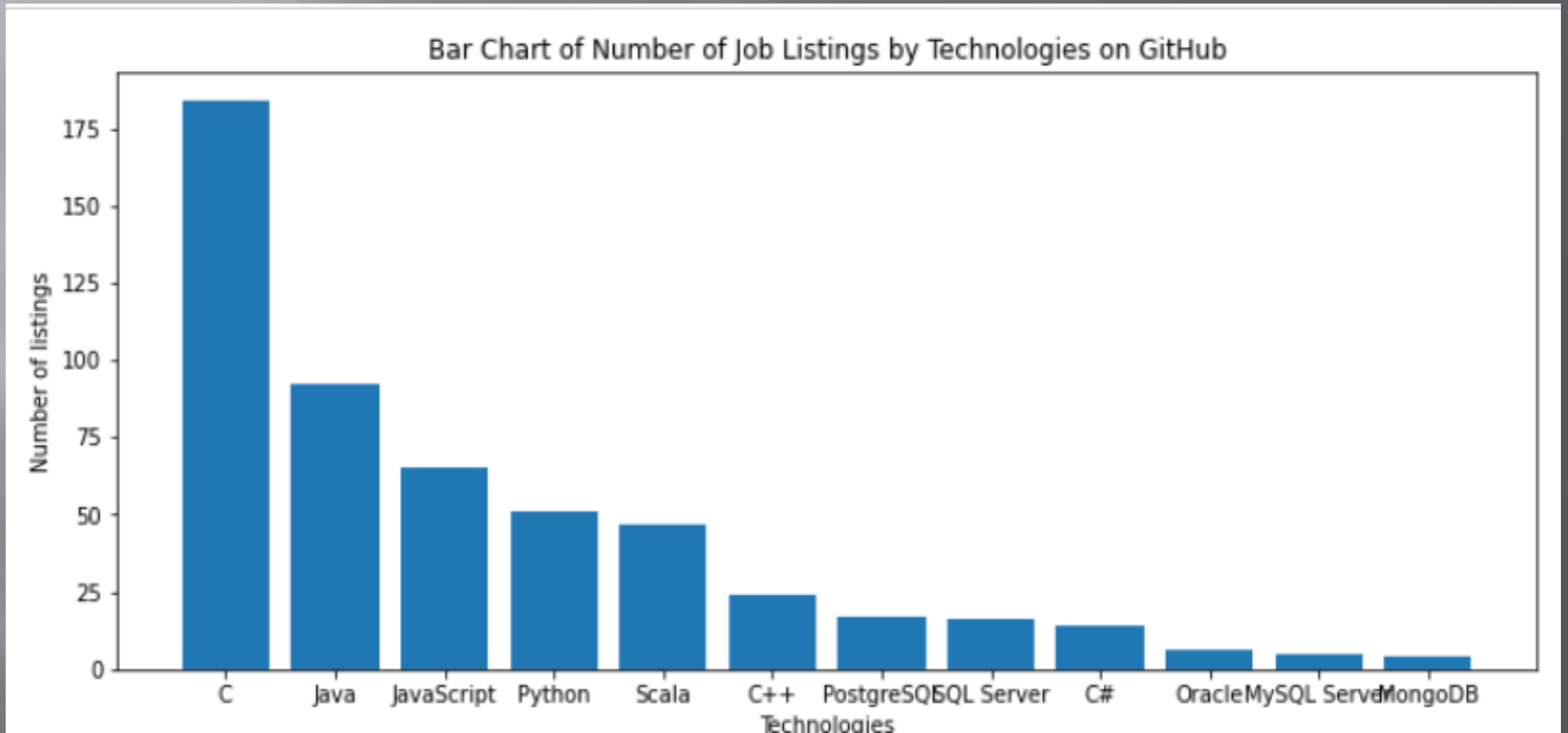
- ▣ Javascript, HTML and CSS will remain relevant programming languages while Typescript is going to join soon enough
- ▣ More programmers will be dropping the use of Bash/Shell/Powershell, Microsoft SQL Server and SQLite for their jobs
- ▣ MySQL, PostgreSQL and MongoDB remain the most widely used databases even in the next year having Redis join them



APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

