



# FINAL PROJECT

YUDDI TERUYA

15/01/2021

# OUTLINE

---



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

# EXECUTIVE SUMMARY

---



- JavaScript,HTML5,and Python are widely popular,in demand languages
- SQL is necessary to work with popular DBs like MongoDB and PostgreSQL
- The popularity of web languages and database languages imply heavy demand in these sectors
- Better to know multiple languages than a single language.
- Like anything in technology it is always changing.

# INTRODUCTION

---



- This presentation will show the trends in various programming languages and databases being used currently
- Students seeking positions after graduation need to be prepared with the languages in demand.
- Using current job postings and salary information, as well as survey results from programmers, we can determine which languages are the future.
- We can extrapolate from the languages what the best sectors to be in are and demand for people that know multiple languages.

# METHODOLOGY

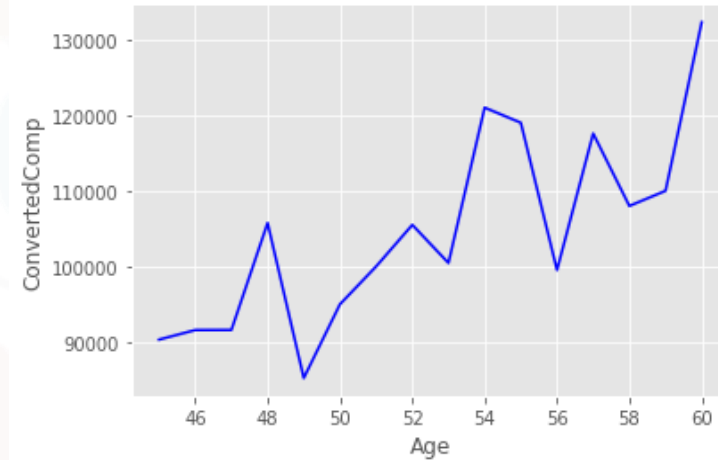
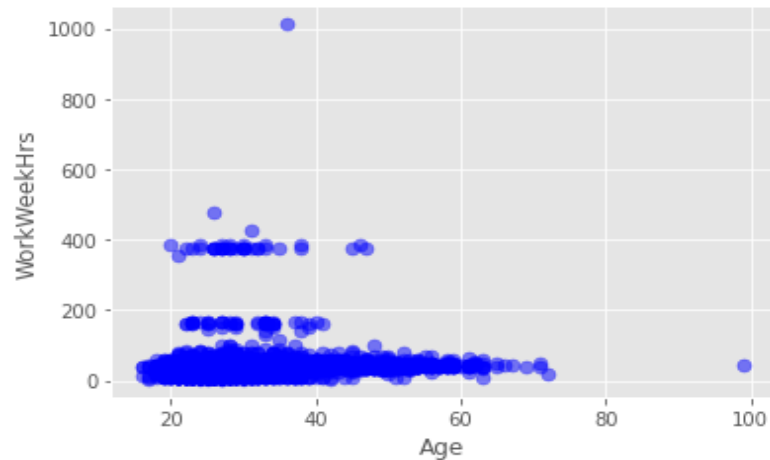
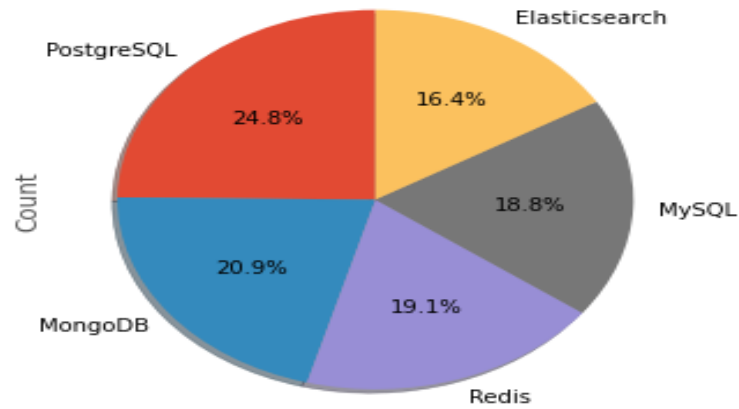
---



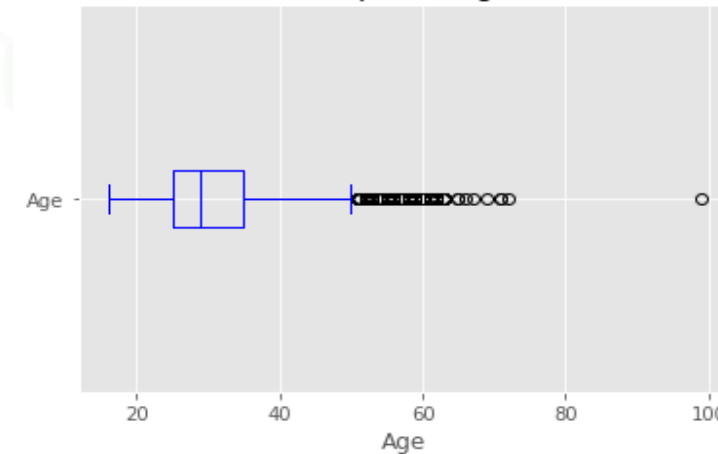
- Data Collection.
- Cleaning Data(dropping outliers, duplicates).
- Presenting cleaned data.
- Data Visualization
  - Chart – Pie, Bar, Box, Line, scatter charts in Results.
  - Dashboard.

# RESULTS

Top 5 Databases

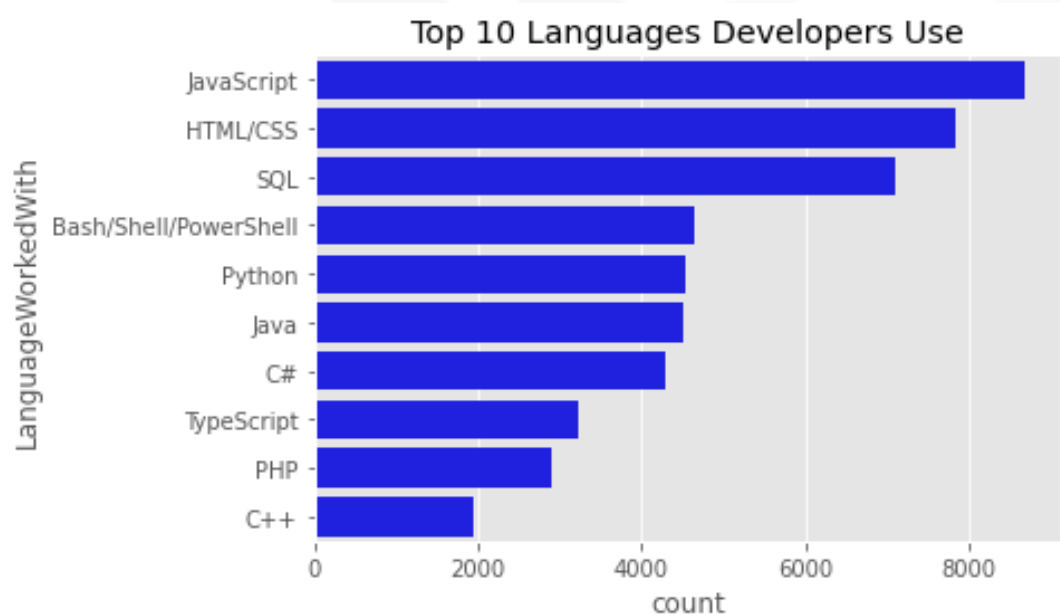


Box plot of Age

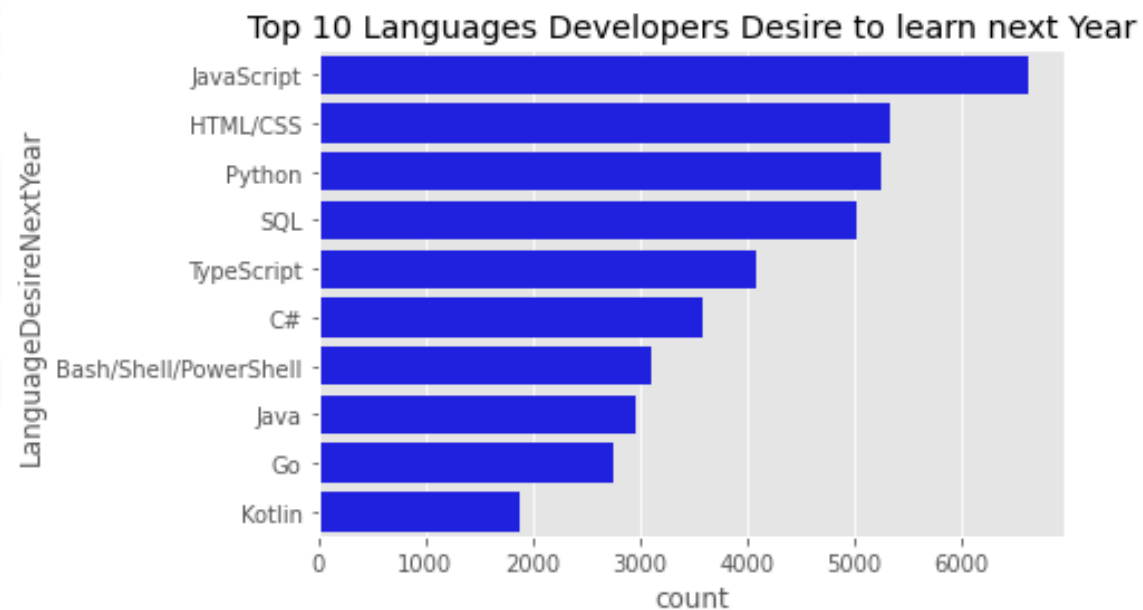


# PROGRAMMING LANGUAGE TRENDS

## Current Year



## Next Year



# PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

---

## Findings

Javascript is leading among all others.

- Python is less demanding as compared to others.
- Sql is currently in third.
- Bash/shell/PowerShell drops

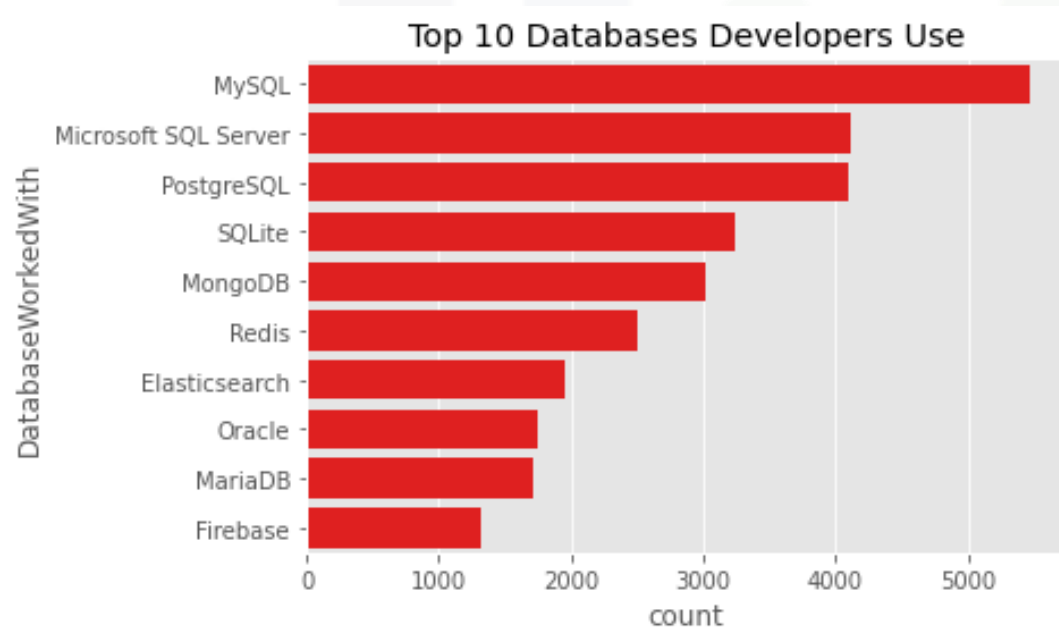
## Implications

- It should retain this position for a couple of years.
- Python is increasing in demanding and could overtake Javascript as the most used.
- SQL over numbers will increase but others will grow more meaning it will drop down the list
- Bash/Shell/PowerShell decreases in use.

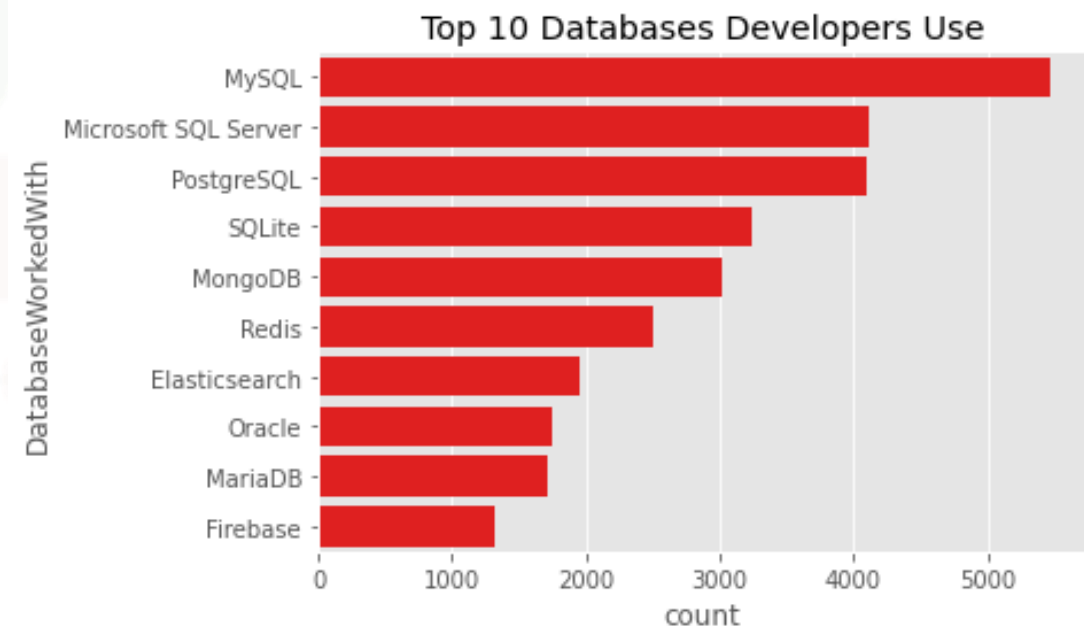


# DATABASE TRENDS

## Current year



## Next Year



# DATABASE TRENDS – FINDINGS & IMPLICATIONS

---

## Findings

- MySQL is currently the most used.
- Microsoft SQL Server in 2°.
- MongoDB is currently the least used database
- PostgreSQL in 3°.

## Implications

- MySQL will decline in the upcoming years.
- PostgreSQL will see an increase in demand resulting it becoming the most used.
- MongoDB will increase in demand and will 2° most used db
- SQL SERVER falls out if the most used databases.

# DASHBOARD

---



[https://eu-  
gb.dataplatform.cloud.ibm.com/dashboards  
/918942ce-e900-4cea-8f34-  
2a990649db54/view/4620fc1560af2dc84edcbd  
e4079a28532b352455e7bbd20bd4807b495a3379  
97f0681a94c87c1e088c190660a7ef4051c1](https://eu-gb.dataplatform.cloud.ibm.com/dashboards/918942ce-e900-4cea-8f34-2a990649db54/view/4620fc1560af2dc84edcbd<br/>e4079a28532b352455e7bbd20bd4807b495a3379<br/>97f0681a94c87c1e088c190660a7ef4051c1)

# DASHBOARD TAB 1

Filtros

## Current Technology Usage

LanguageWorkedWith

- Bash/Shell/PowerShell
- Java
- SQL

PlatformWorkedWith

- C#
- JavaScript
- TypeScript

## Future Technology Trend

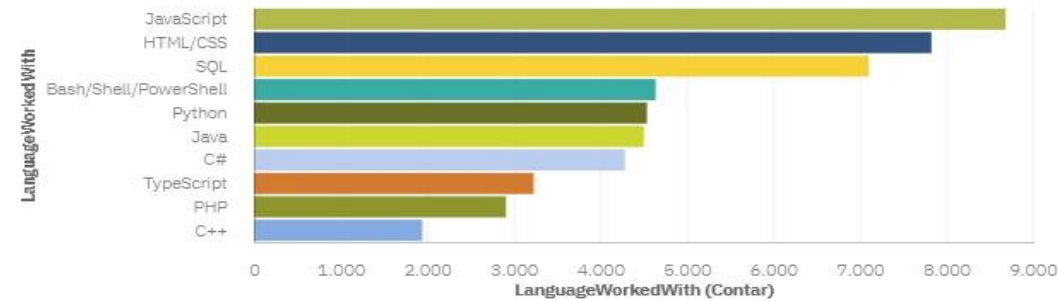
PlatformWorkedWith

- C++
- PHP

## Demographics

PlatformWorkedWith

- HTML/CSS
- Python



DatabaseWorkedWith

- Elasticsearch
- MongoDB
- Redis

DatabaseWorkedWith

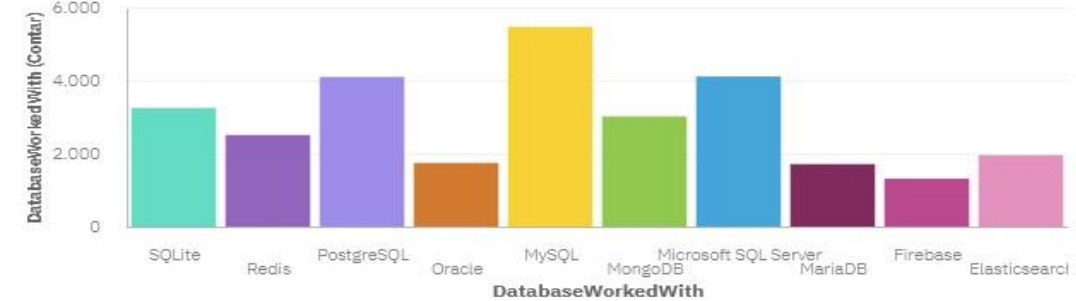
- Firebase
- MySQL
- SQLite

DatabaseWorkedWith

- MariaDB
- Oracle

DatabaseWorkedWith

- Microsoft SQL Server
- PostgreSQL



## Principais plataformas utilizadas

PlatformWorked...

0 5,811

PlatformWorkedWith

- (sem valor)
- Arduino
- Heroku
- Linux

PlatformWorkedWith

- AWS
- Docker
- IBM Cloud or Watson
- MacOS

PlatformWorkedWith

- Android
- Google Cloud Platform
- Kubernetes
- Microsoft Azure



## Principais framework utilizados

WebFrameWorked...

0 4,629

WebFrameWorkedWith

- (sem valor)
- Drupal
- Other(s):
- Vue.js

WebFrameWorkedWith

- ASP.NET
- Express
- React.js
- jQuery

WebFrameWorkedWith

- Angular/Angular.js
- Flask
- Ruby on Rails

WebFrameWorkedWith

- Django
- Laravel
- Spring

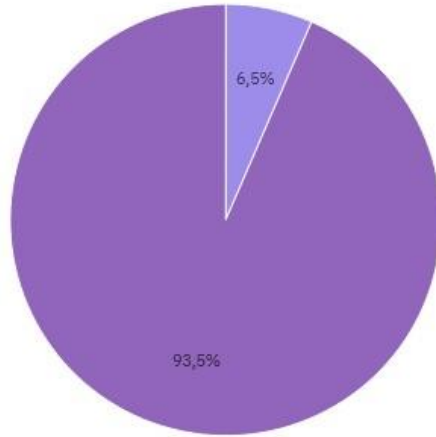


## DASHBOARD TAB 2

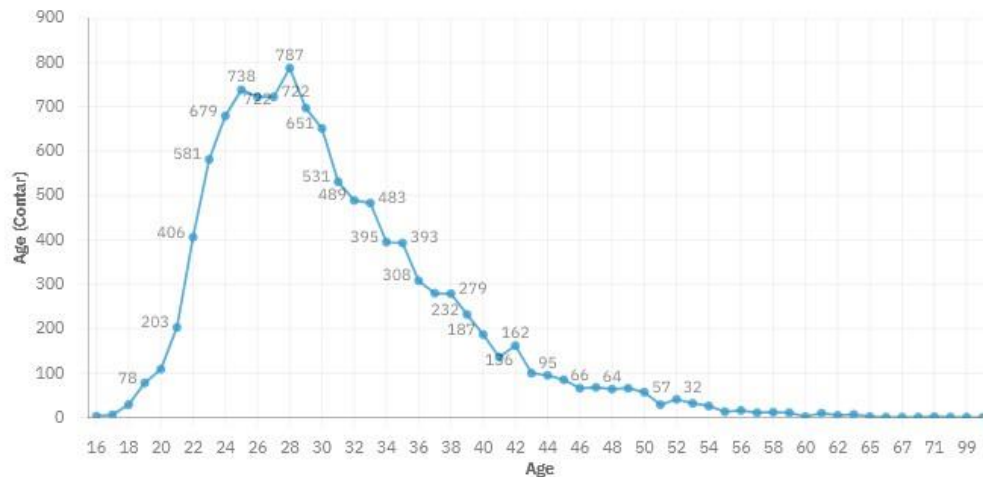


# DASHBOARD TAB 3

Woman Man



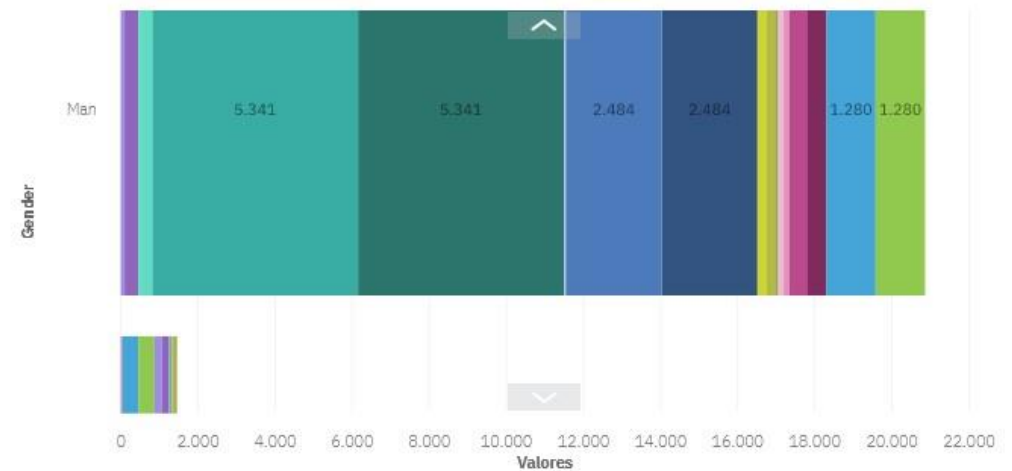
Respondent Count by Age



1 3.127



Respondent Count by Gender, classified by Formal Education Level



# DISCUSSION

---



- Python, HTML 5, and Javascript are perennially popular, widely used languages with broad support.
- Niche languages, like Swift, are not present in large numbers
- While increasing in popularity among programmers, MongoDB has relatively few job openings.

# OVERALL FINDINGS & IMPLICATIONS

---

## Findings

- Javascript is the most used.
- Html and css are in demand.
- Python is currently one of least used programming language.
- Typescript is the least popular.

## Implications

- Javascript will still be the most used but the different between them will decrease.
- Html and css becoming one of the most used languages
- Python will increase in demand
- Typescript stop being and drop of the top 5



# CONCLUSION

---



- It is best to learn multiple languages in order to secure a position.
- Python and JavaScript are highly sought after - #2 and #5 in Github job postings.
- SQL is important in dealing with multiple databases – MongoDB and PostgreSQL especially.
- Web programming and Database programming are the sectors seeing increases.

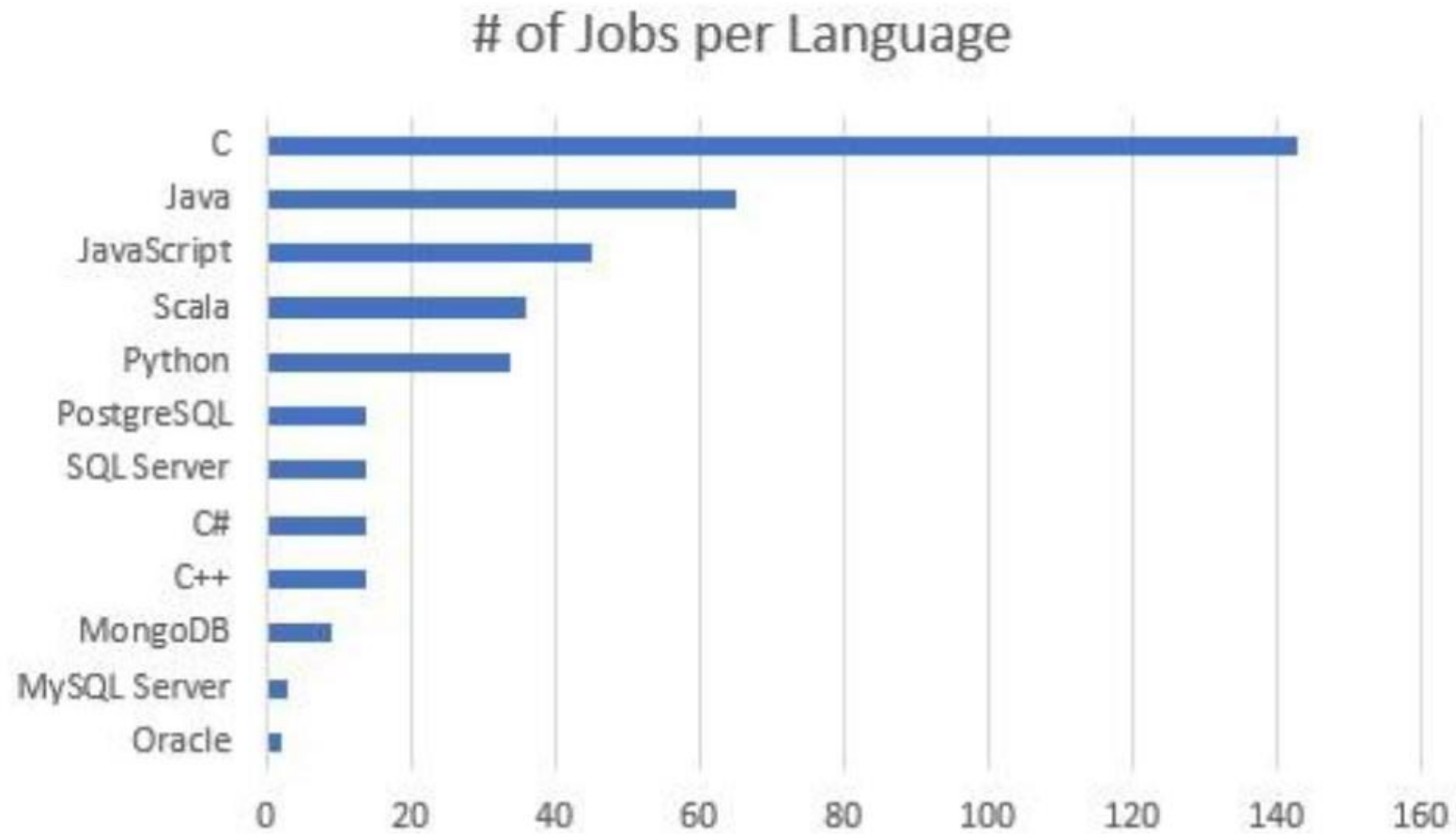
# APPENDIX

---



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

# GITHUB JOB POSTINGS



# POPULAR LANGUAGES

