



# TECHNOLOGY TREND ANALYSIS

Petros Polychronopoulos

30/1/2023

# OUTLINE



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



# EXECUTIVE SUMMARY



- The technology trend analysis aimed to identify and analyze the current and future developments in a specific technology sector.
- The findings revealed the current state of the sector and the most impactful technological advancements. The study also made predictions on future trends and identified potential growth areas.
- The results provided valuable information for technology companies and investors to make informed decisions and stay ahead of the curve in a rapidly evolving industry.

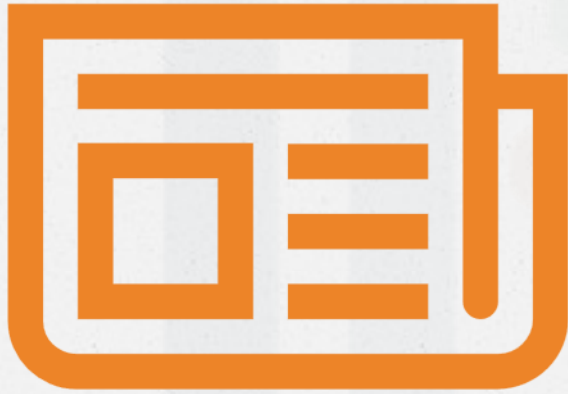
# INTRODUCTION



- o The technology market changes quickly every year. It is important to catch-up with the latest technology in each field.
- o The comparison between current & next year technology trend will provide great inside into the market.
- o The study consist of the following parts:
  - o Programming Language Trends
  - o Database Trends
  - o Platform Trends
  - o Web Frame Trends



# METHODOLOGY



- Data Sources
  - Stack overflow developer 2019 survey
  - GitHub job posting
- Data Visualization
  - IBM Cognos Analytics with Watson

# RESULTS

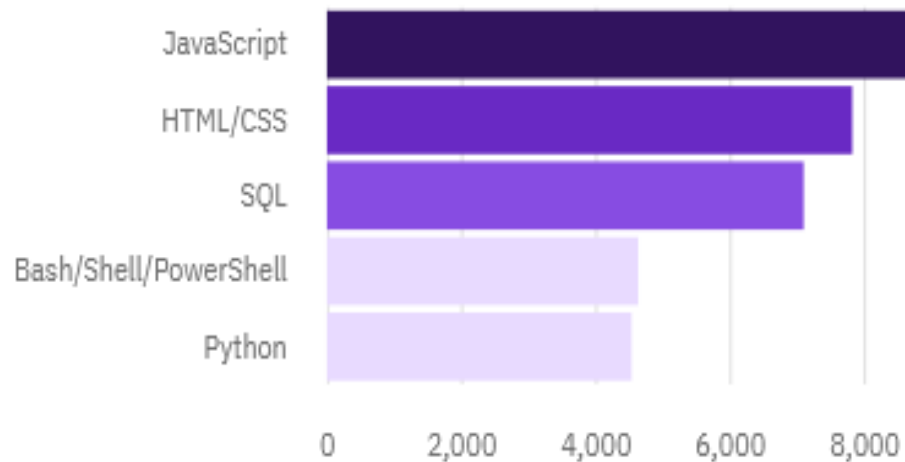
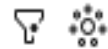


# PROGRAMMING LANGUAGE TRENDS

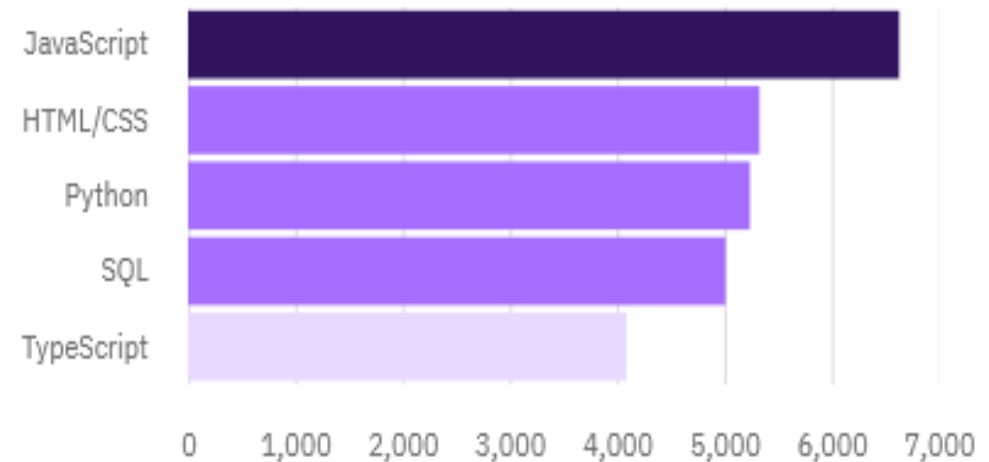
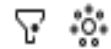
Current Year

Next Year

**Top 5 Languages Worked With**



**Top 5 Language Desire for Next Year**



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- JavaScript & HTML/CSS are top programming languages for both current and future trend.
- Python has become the third most popular programming language.
- PowerShell and Bash/Shell have disappeared from the top 5.

## Implications

- Knowledge of JavaScript & HTML/CSS is very important for current and future employees.
- Python and TypeScript are good skills for future employees.
- PowerShell and Bash/Shell are gradually falling out of interest.

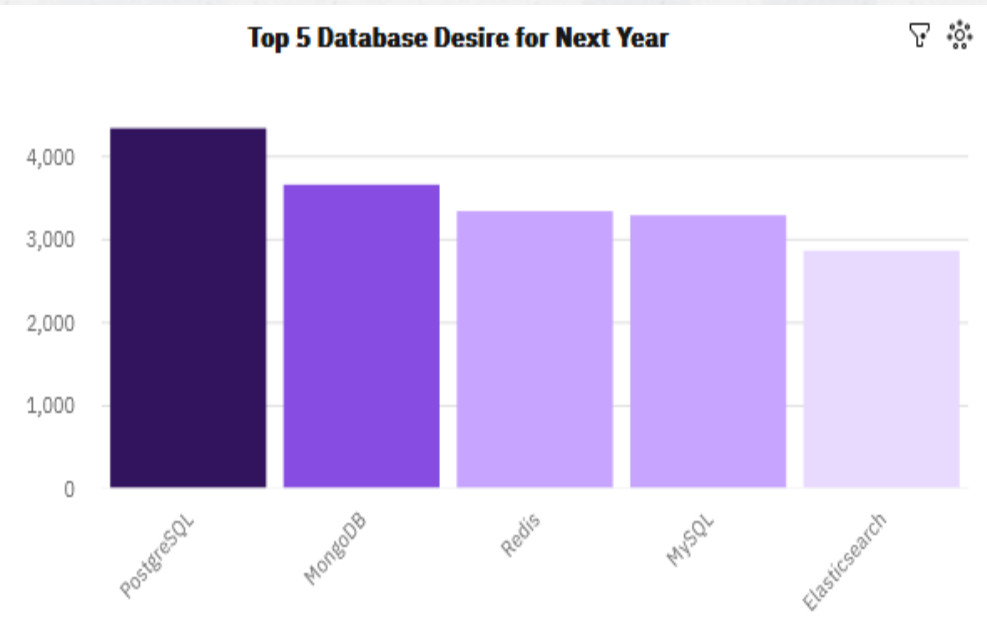


# DATABASE TRENDS

Current Year



Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- MySQL & Microsoft SQL Server moved from top 2 Databases.
- PostgreSQL becomes the most desired Database for next year.
- MongoDB moves from top 5 to top 2.

## Implications

- MySQL & Microsoft SQL Server are becoming less desirable.
- PostgreSQL is a desired skill to have.
- Non relational Databases (MongoDB & Redis) seem to be very important for the future.



# DASHBOARD



# DASHBOARD TAB 1

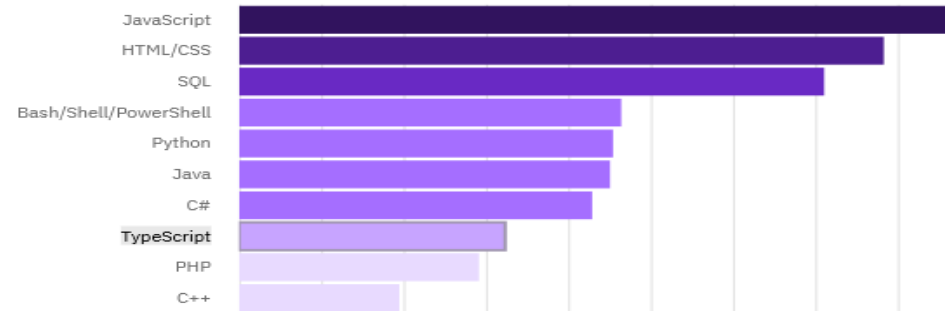
Current Technology Usage

Future Technology Trend

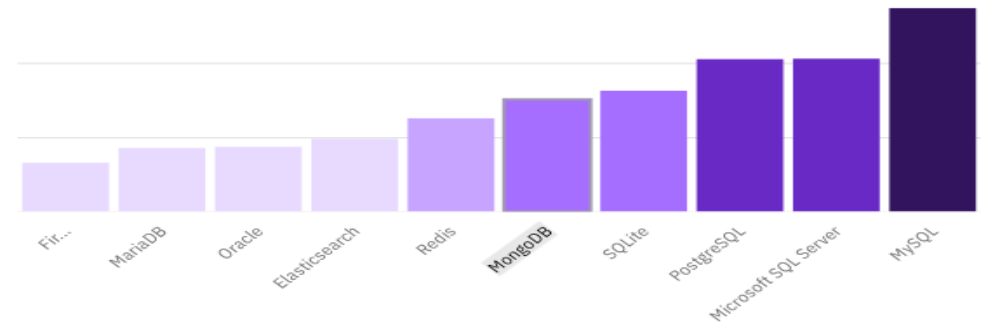
Demographics

+

Top 10 Languages Worked With



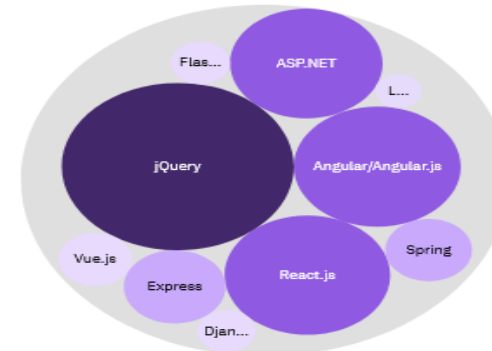
Top 10 Databases Worked With



Platforms Worked With



Top 10 Web Frames Worked With





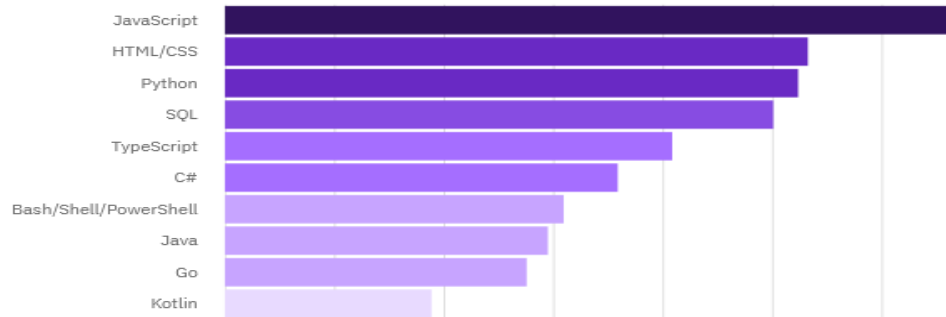
# DASHBOARD TAB 2

Current Technology Usage

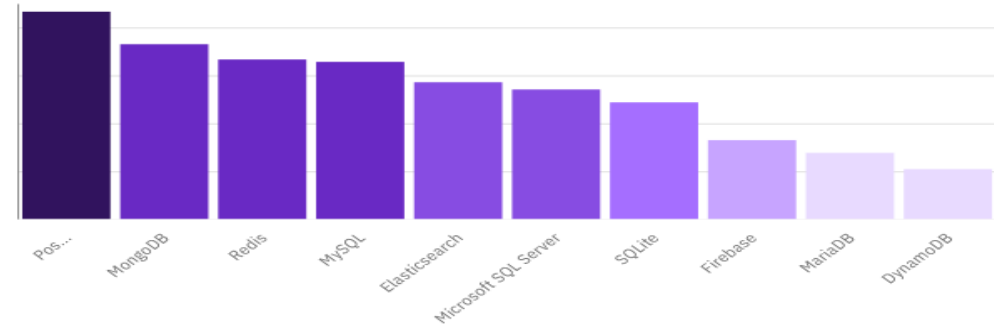
**Future Technology Trend**

Demographics

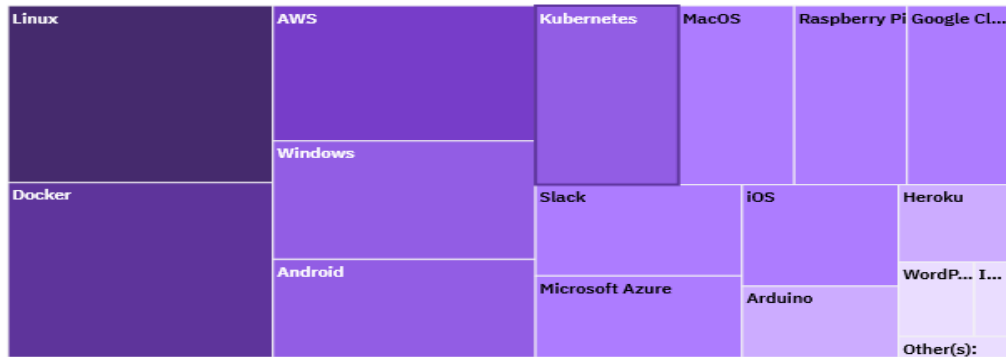
**Top 10 Language Desire for Next Year.**



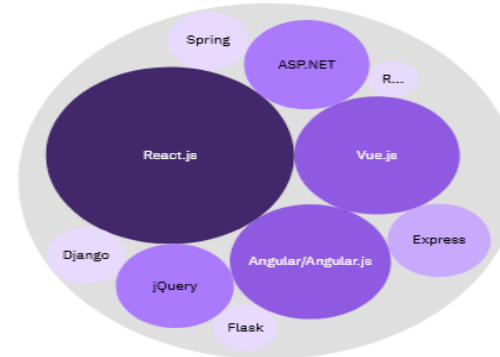
**Top 10 Database Desire for Next Year**



**Platform Desire for Next Year**



**Top 10 Web Frames Desire for Next Year**



# DASHBOARD TAB 3

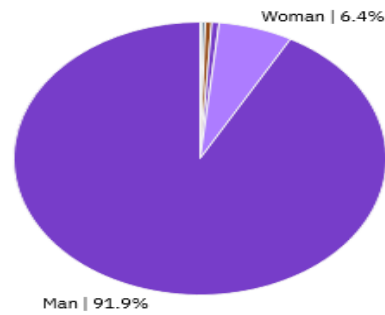
Current Technology Usage

Future Technology Trend

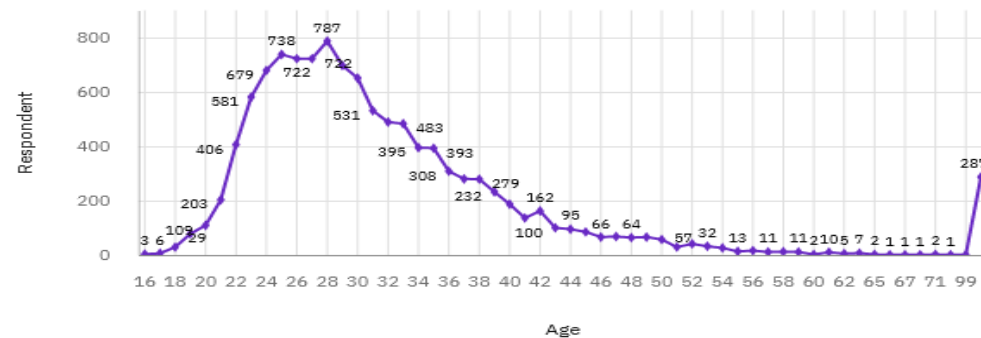
Demographics

+

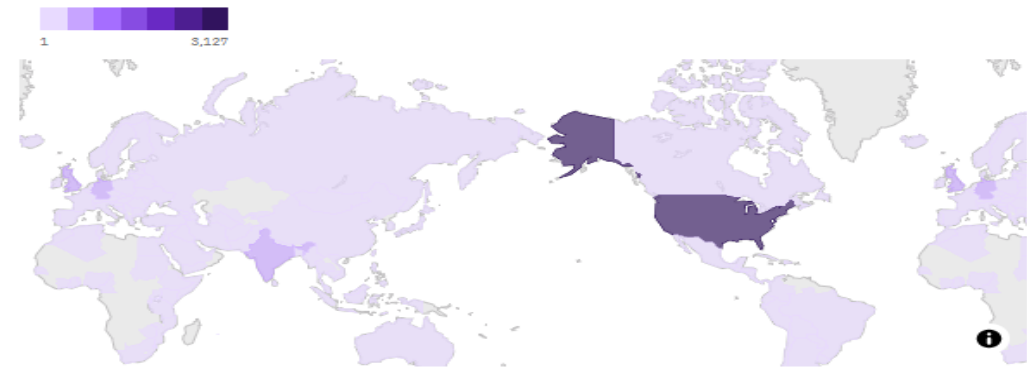
Respondent classified by Gender



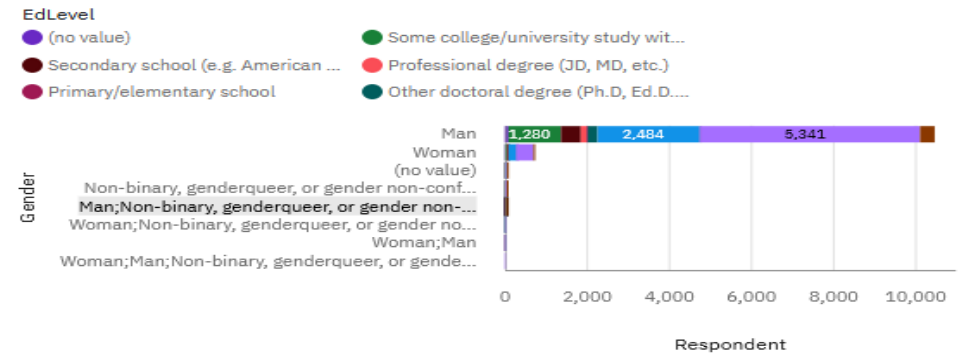
Respondent by Age



Respondent for Country regions



Respondent by Gender classified by Education Level





# DISCUSSION



# OVERALL FINDINGS & IMPLICATIONS

## Findings

- **Programming Languages:** JavaScript & HTML/CSS remain top programming languages. Python continues to grow.
- **Databases:** PostgreSQL and Non Relational Databases are gaining more interest.
- **Platforms:** Linux is the most significant platform. Docker and AWS are preferred to Windows for the next year.
- **Web Frames:** React.js & Vue.js continue to grow and are preferred over jQuery.

## Implications

- Web applications are a very important asset for current and future employees.
- Future employees need the knowledge for both Relational and Non Relational Databases.
- Linux is still the most used platform.
- Future employees have to be skilled in React.js & Vue.js.

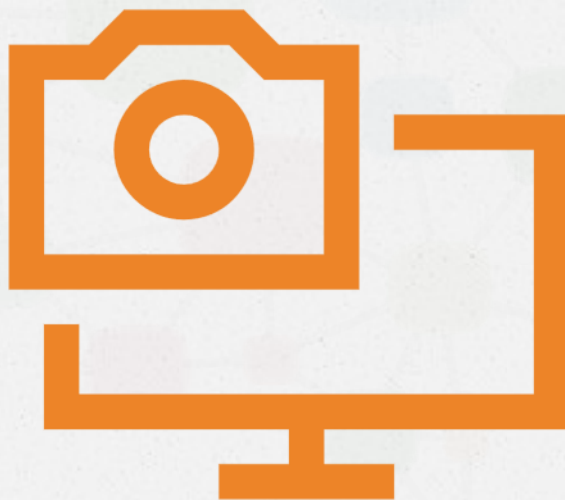


# CONCLUSION



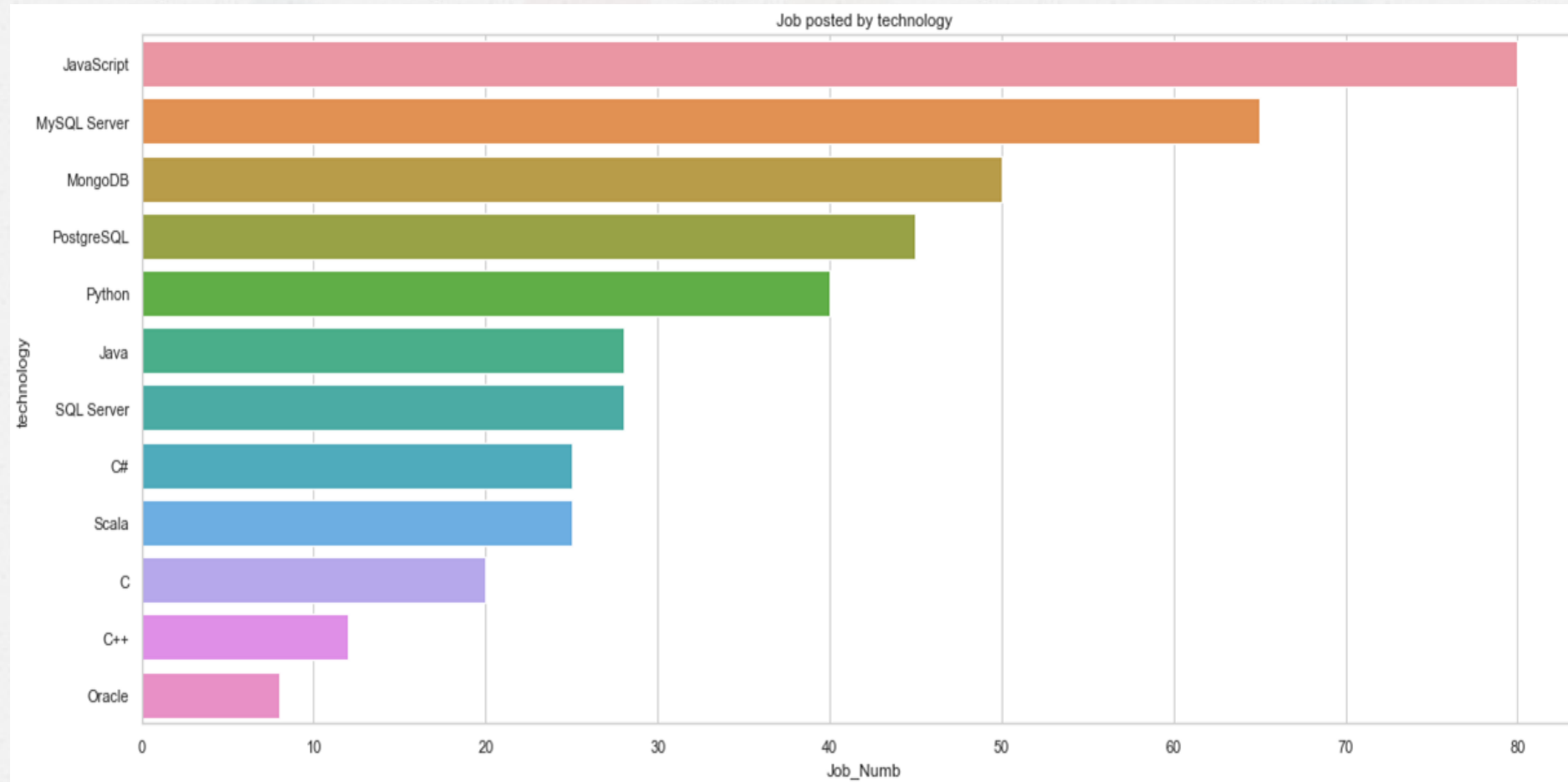
- o Businesses need training programs for the existing employees to keep up with the rapid changes.
- o New employees should have the knowledge of both Relational and Non Relational Databases. As far as the programming languages are concerned, web applications are an asset and Python is a solid choice.

# APPENDIX





# JOB POSTINGS



# POPULAR LANGUAGES

