PRESENT AND FUTURE TECHNOLOGY TREND ANALYSIS

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OUTLINE

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  - Dashboard
- Discussion
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EXECUTIVE SUMMARY

- Two sets of data based on technology and demographics were inherited from a modified subset of data to analyze present and future technology trends across gender, age and education level

- IBM Cognos Analytics platform was used for the performance of analysis and visualization of the trends, with results representing
  - Current Technology Usage
  - Future Technology Trend
  - Demographics

- JavaScript was the most used language, MySQL the most used database and Windows the popular platform on Current Technology Usage

- Future Technology Trend showed Python will be the more preferred language, PostgreSQL being the most sought after database to learn

- Demographics dashboard showed the majority of respondents were man consisting of 93.5% while the majority of them were holders of bachelor's degree

INTRODUCTION

- This presentation targets an audience of people in the IT, HR industry and those interested in technology trends they might learn for future purposes

- The two datasets used consisting of demographics and technology were scrapped from a modified subset of data available on Stack Overflow

- Which programming languages, databases and platforms are mostly used are some of the questions answered in this presentation report

- This presentation shows findings of technology trends of the most sought after programming languages, databases and platforms etc..
  - Showing different kinds of visualizations from Bar Charts to Maps
  - Some relevant insights and suggestions

METHODOLOGY

- Collect Survey Data

- Data Wrangling

- Exploratory Data Analysis

- The use of IBM Cognos Analytics
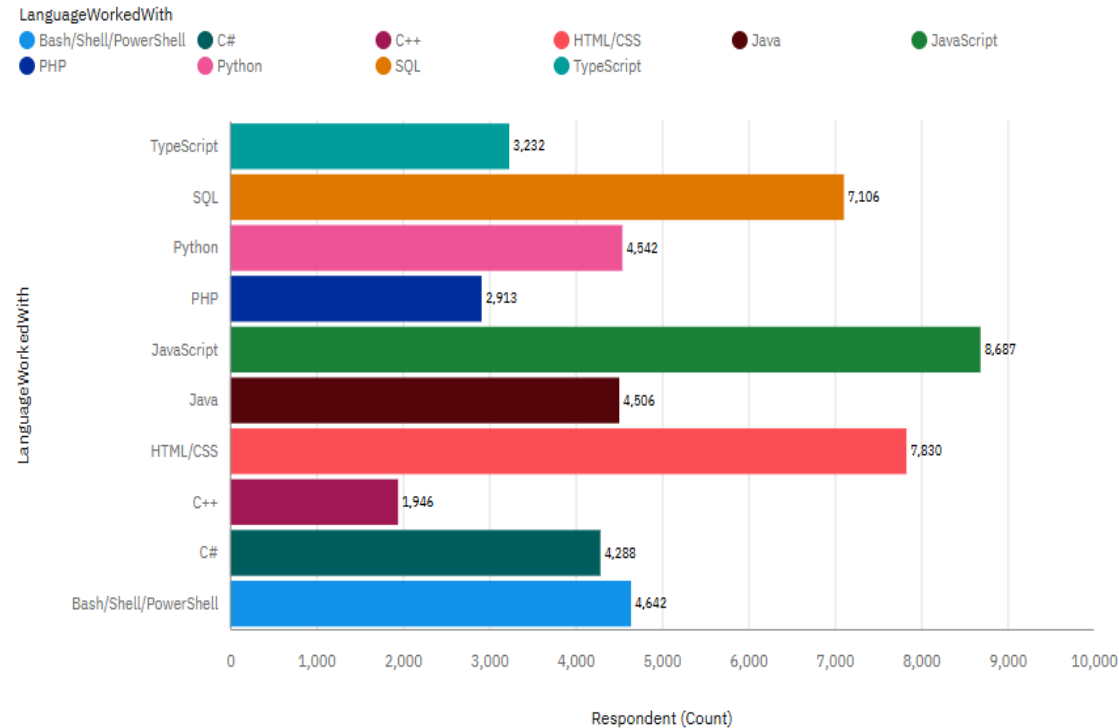 - Dashboard Creation
  - Develop Insights

RESULTS
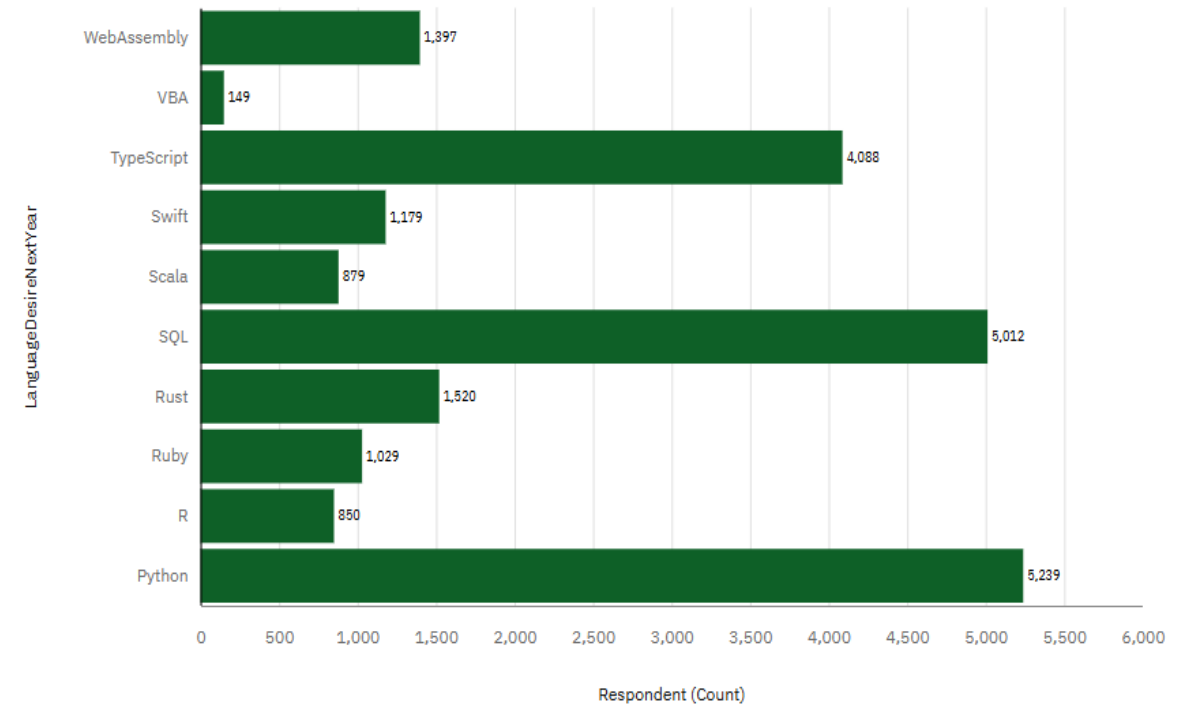
PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- From the findings there is high risk of HTML/CSS becoming Obsolete in the future
- There is growing interest in the use of Python and TypeScript languages
- Languages like Swift, Ruby and WebAssembly are likely to be sought after in the future
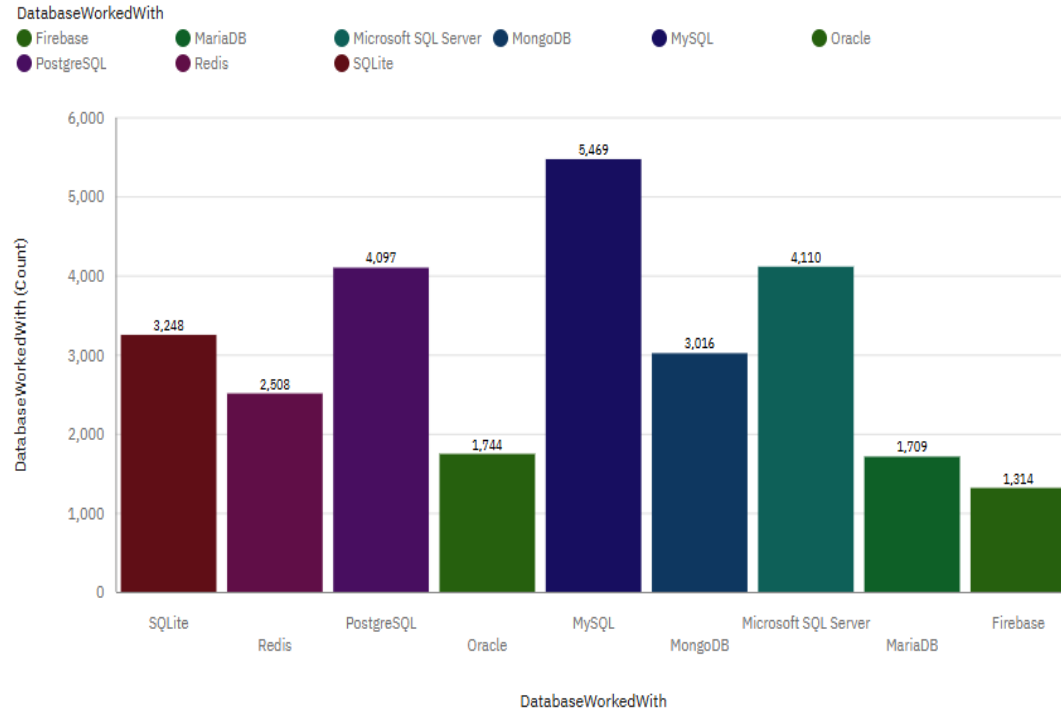
Implications

- HTML/CSS engineers are likely to develop skills in other fields like Python
- Python and Typescript skillset development may be prioritized by more people soon
- More job ads on people with knowledge of Swift, Ruby and WebAssembly are likely to increase
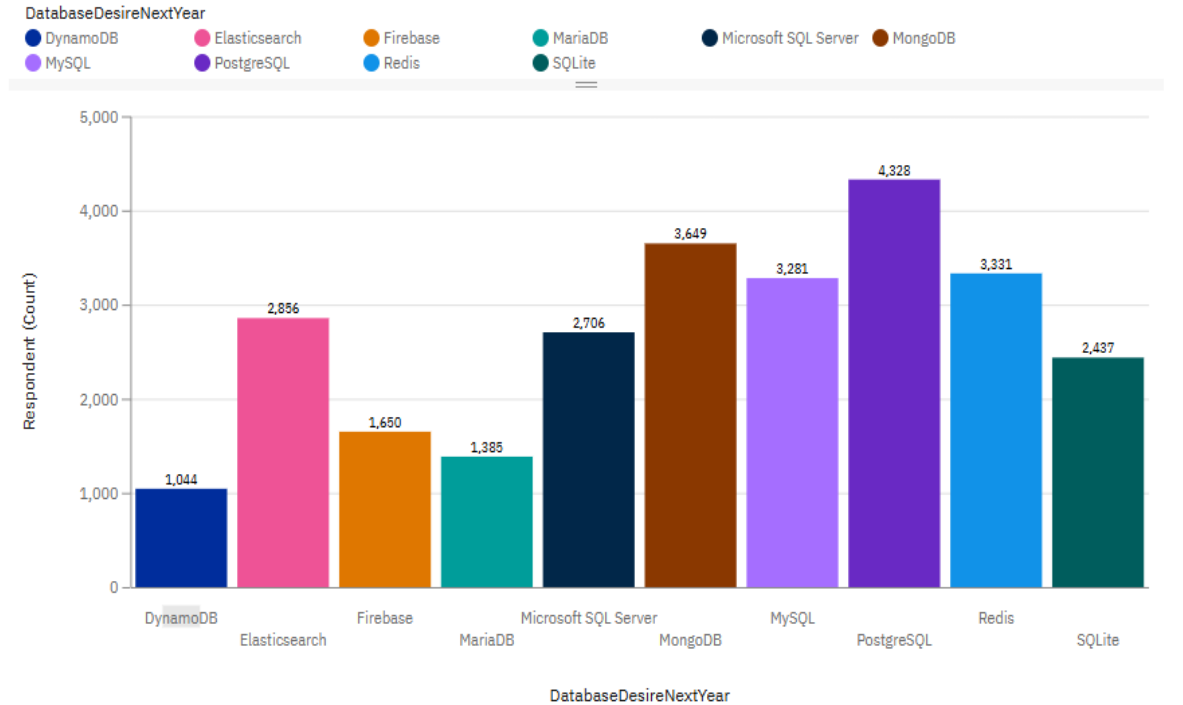
DATABASE TRENDS

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Elasticsearch is likely to have drastic rise in the future

- Visualizations show MySQL is the most popular database currently and will remain a sought after database in the future though it might not be still the most popular

- Oracle may face a shift in users in the future opting for other databases

Implications

- Many job opportunities may arise for those with knowledge of Elasticsearch

- Most likely many will continue to advance their skills in MySQL

- There is a high risk of those that know Oracle only likely to end up unemployed in the future
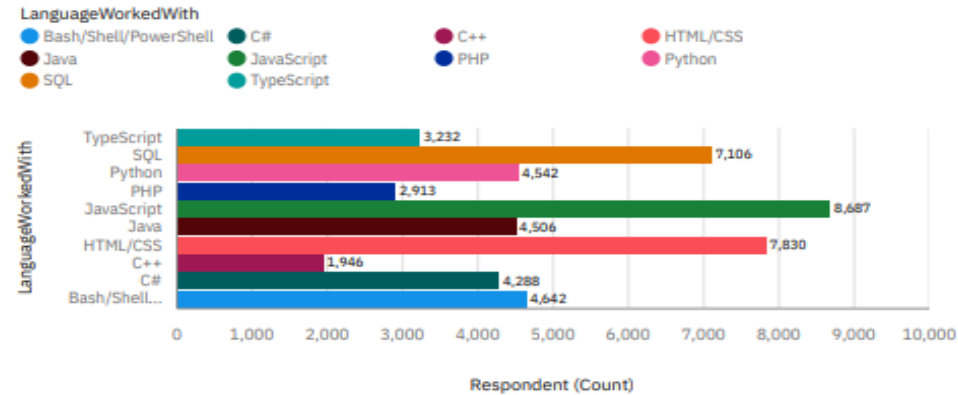
DASHBOARD

Capstone-Project/_ Capstone Project Dashboard.pdf at main · 23313K/Capstone-Project (github.com)

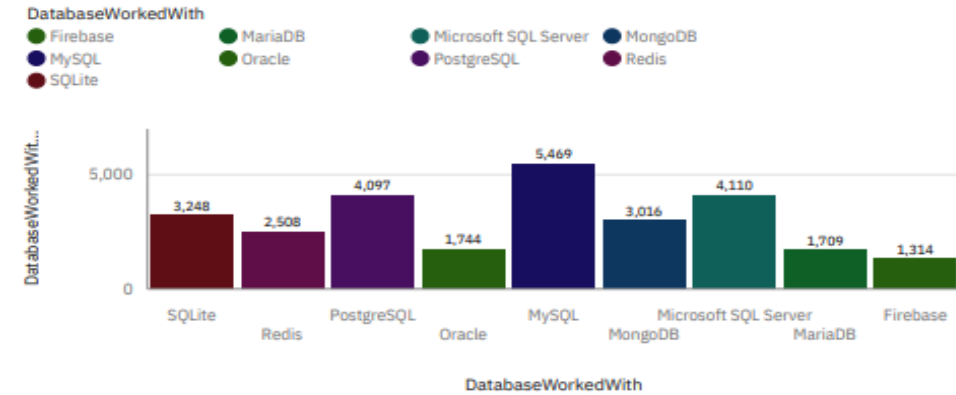# CURRENT TECHNOLOGY USAGE
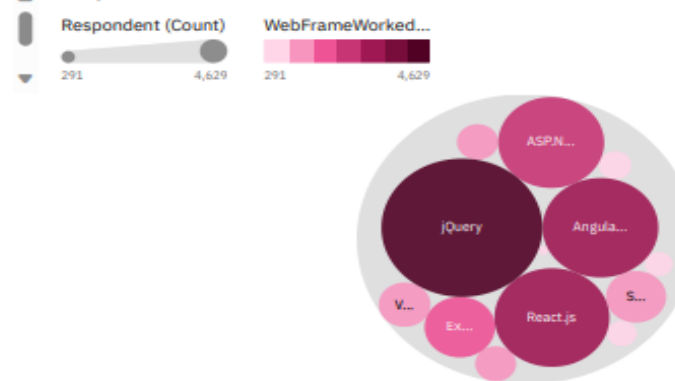
FUTURE TECHNOLOGY TREND

Future Technology Trend dashboard containing four charts.
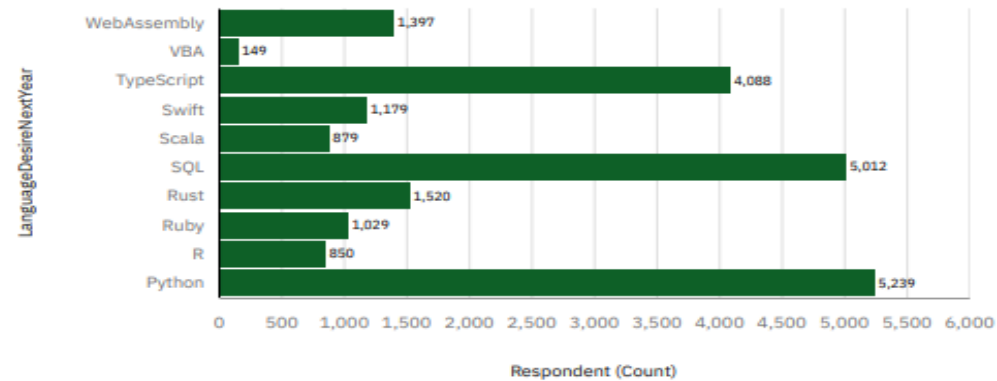
DEMOGRAPHICS
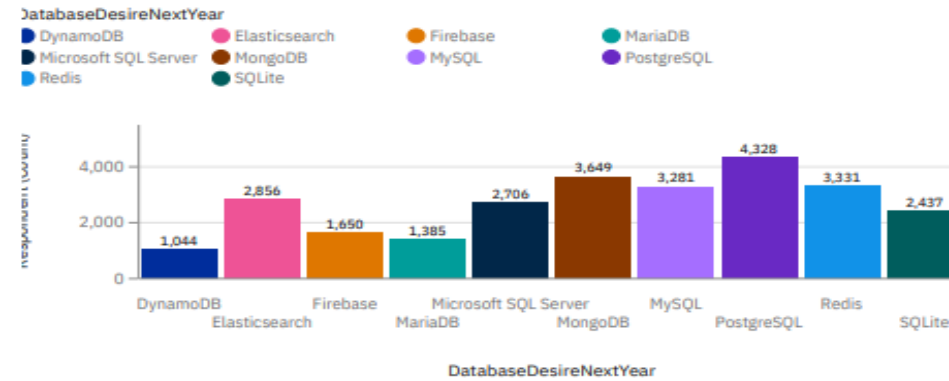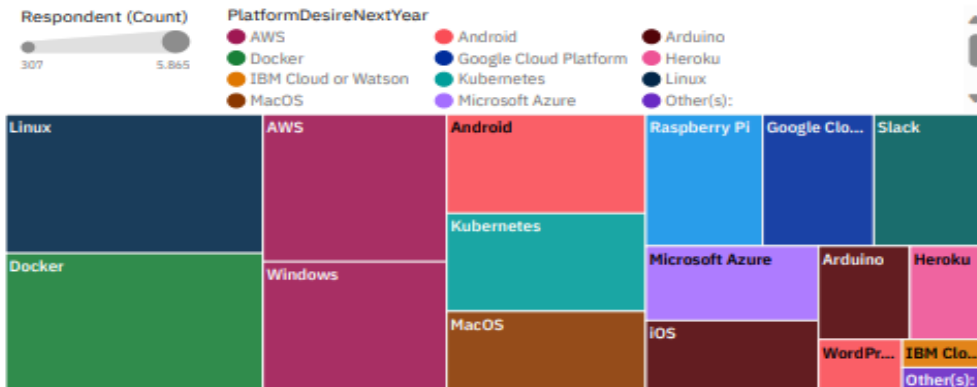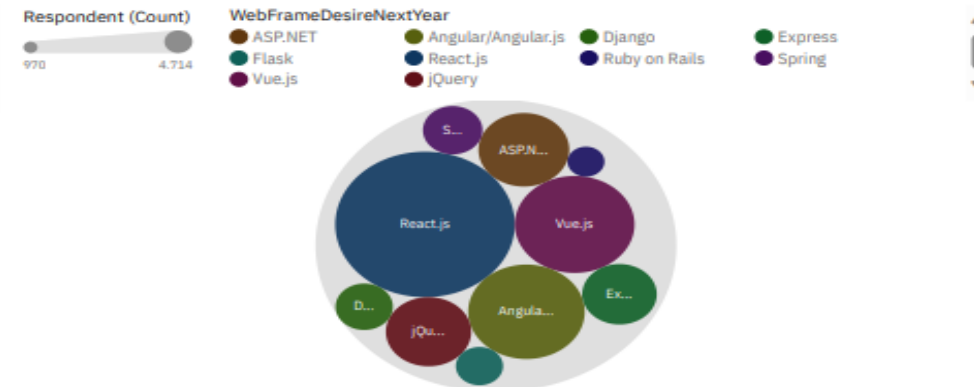
DISCUSSION

- Will there be a shift from the most sought after languages like JavaScript, SQL and HTML/CSS?

- Can PostgreSQL and Microsoft SQL server be the most popular databases surpassing MySQL?

- Which platform will likely seize the opportunity to become the most used?

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript, HTML/CSS and SQL are the most sought after languages although future trends suggest the use of python, typescript and SQL

- HTML/CSS faces a drastic decline in the future

- Majority of the respondents age ranges between 24 to 30 years

Implications

- It seems people are finding it easier SQL currently and in the future

- Many might take an interest in learning python in the future

- Holders of Bachelors' Degree seem to be taking an interest more than other EDLevels which might be helpful if more Webinars were hosted
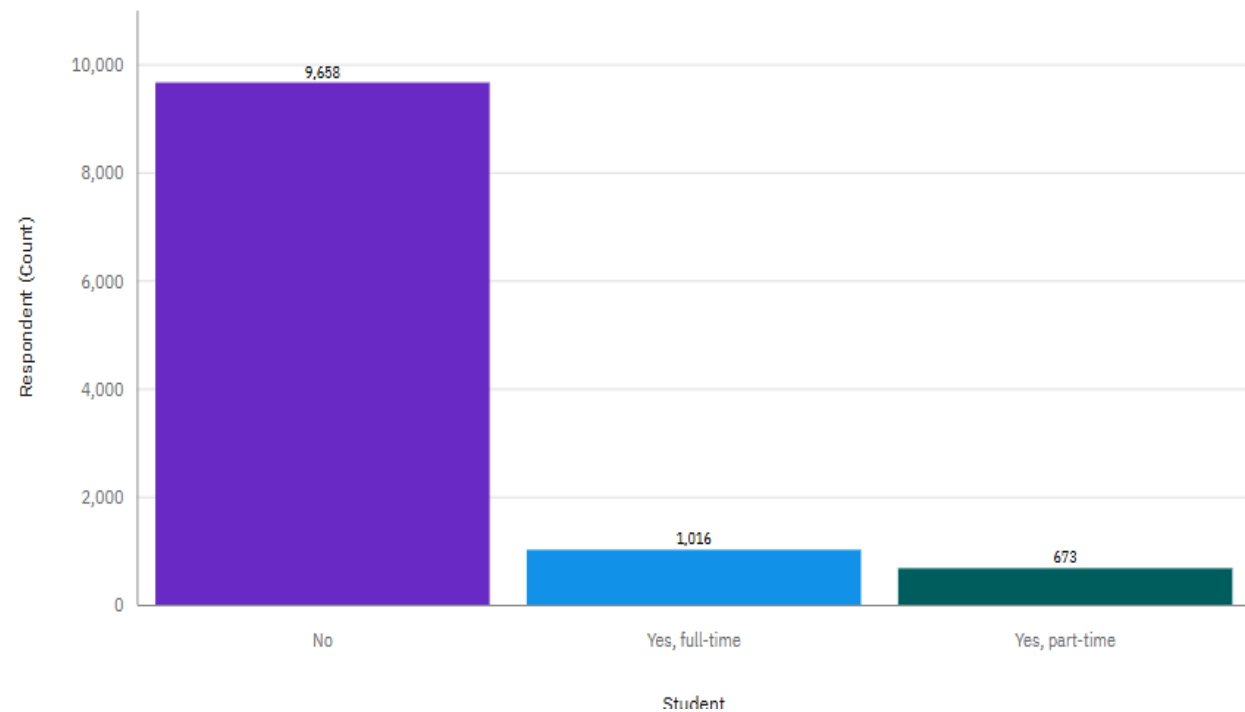
CONCLUSION

- From the visualizations of current and preferred technology SQL will remain a sought after language although not being the most popular with a shift on usage from JavaScript to Python in the future

- MySQL is currently the most popular database although there are suggestions from visualizations that PostgreSQL may become popular in future

- Future Trend visualizations suggest Linux and Docker will probably become the most used platforms with Windows losing an edge a bit

- Majority of the respondents were man constituting of 93.5% of the respondents and of those men, 5341 were holders of a Bachelor's Degree
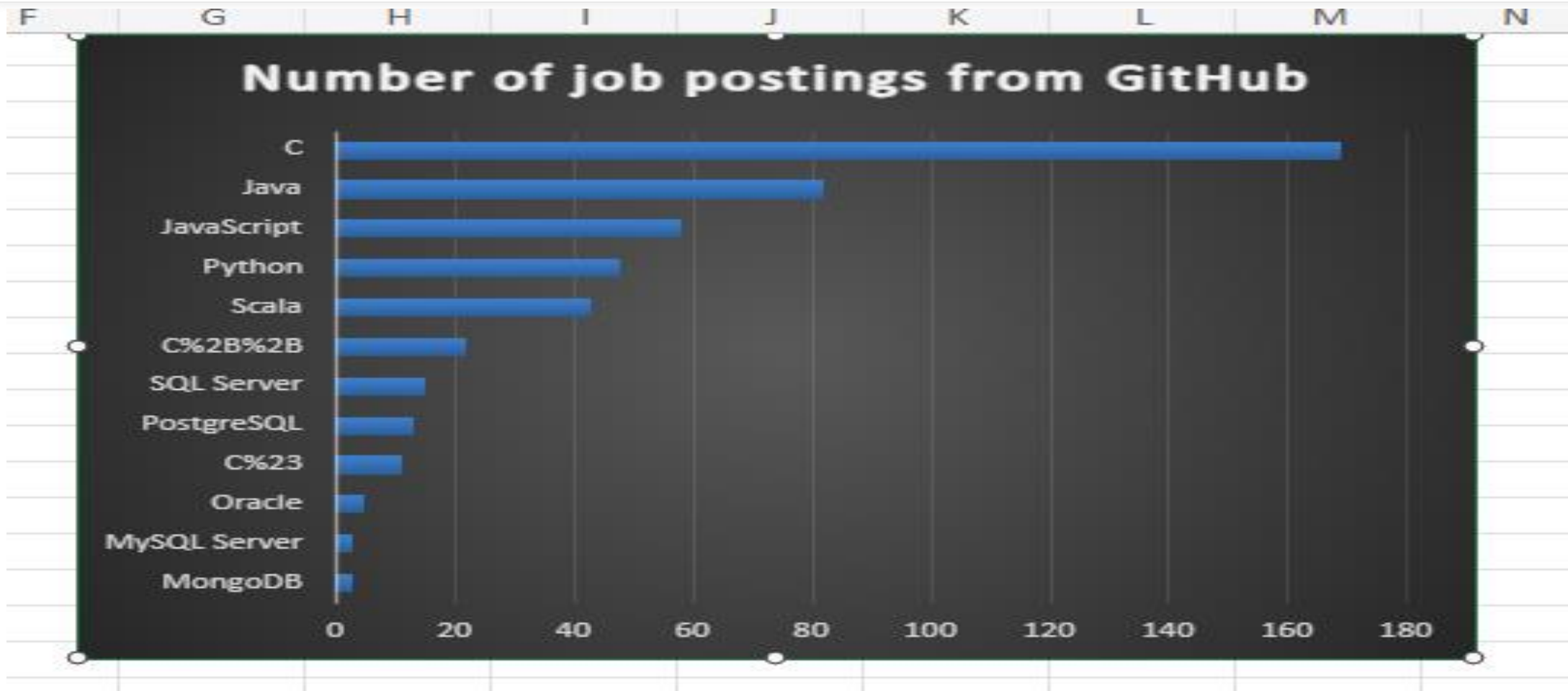
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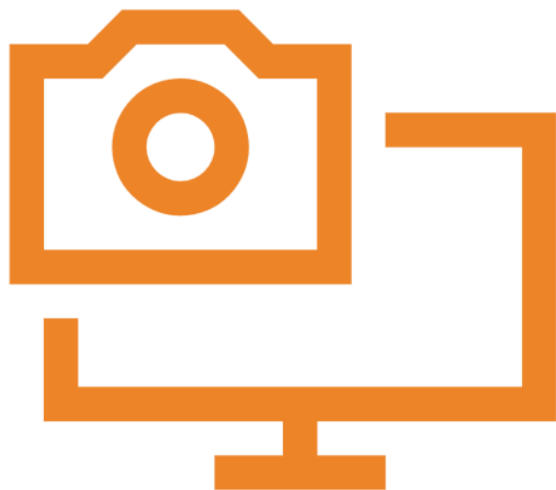
Student Status using demographic data

Student
- No
- Yes, full-time
- Yes, part-time

9,658

1,016

673

No | Yes, full-time | Yes, part-time

Student

Respondent (Count)

JOB POSTINGS

POPULAR LANGUAGES

Average Annual Salary