

Friends in Technology and Analysis insights Presentation

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OUTLINE



- Executive Summary
- Introduction
- Methodology
- Results
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 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- The programming trends in the IT industry and their relevance with reference to location.
- Identifying and analysis of the programming language trends in the today's industry.
- Top Industry programming language being Used
- Top Database
- Top Platforms currently being implemented
- Compilation of the Next Desired Programming Language at the Top Countries

INTRODUCTION



- It is need to provide the required programing language work to approach the demanding need of the IT Industry
- Identify and project the programming Language which is vastly in trend in present and in the future for Industries.

METHODOLOGY



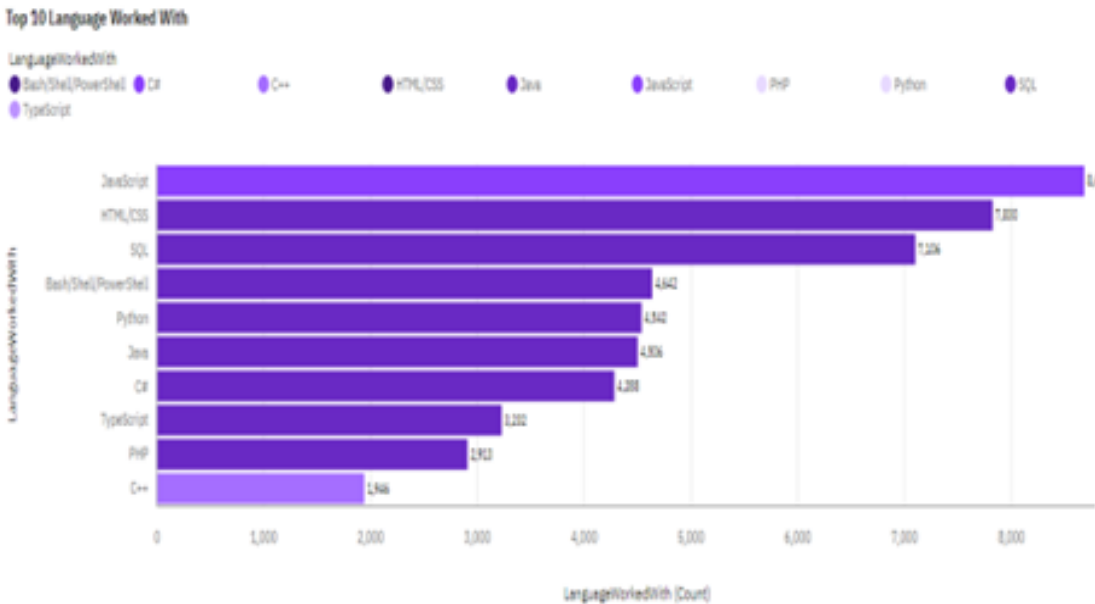
- Data Collection (API, Web Scraping)
- Data Exploring
- Data Wrangling
- Exploratory Data Analysis
- Data Visualization
- Dashboard Creation
- Presentation of Findings

RESULTS

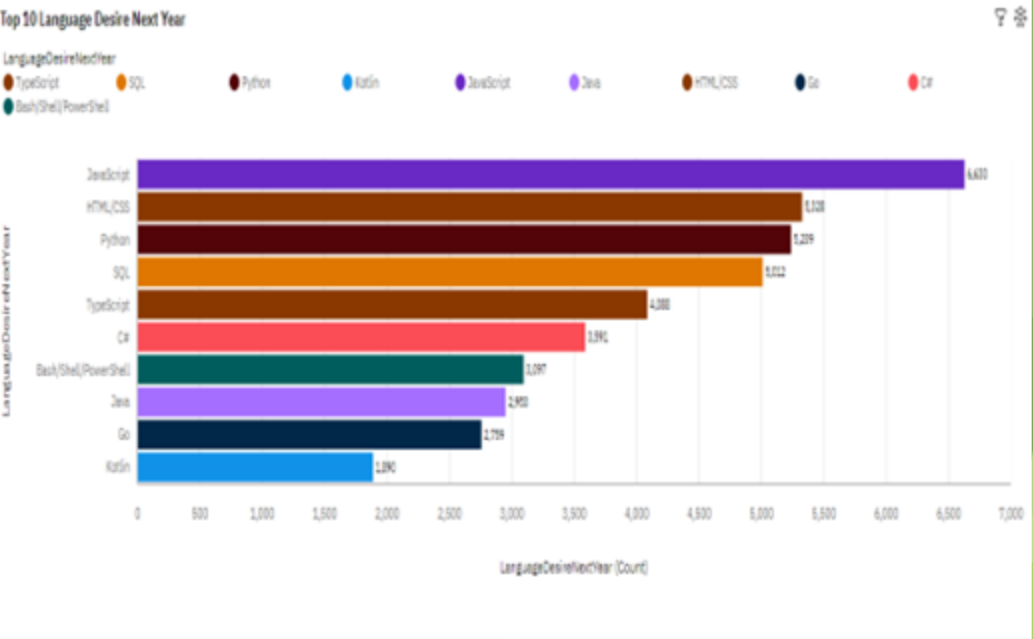
- Data is gathered and analyzed for trends in technology, software and databases.
- First, data collection is carried out by collecting data from given sources about various software programs, technologies, and databases that are being used. This includes information about which programs are popular right now and which ones people expect to be in demand next year.
- Data is cleaned and organized for accurate and usable analysis. Statistical techniques are used to identify patterns, trends, and relationships in the data, such as which software programs are currently trending and which technologies are most likely to be in demand next year.
- Based on the analysis, the top 10 trending software programs and languages as shown in graphs are ranked, showing which ones are the most popular right now. Similarly, the top 10 most desired technologies for the coming year are ranked based on the analysis.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript and HTML/CSS are still in demand.
- Following them SQL Program Demand is low as compare to these top 2 programming languages.
- Python shows increase for In-demand program language desired next year
- TypeScript enters the Top 5 demanding program Language desired next year.

Implications

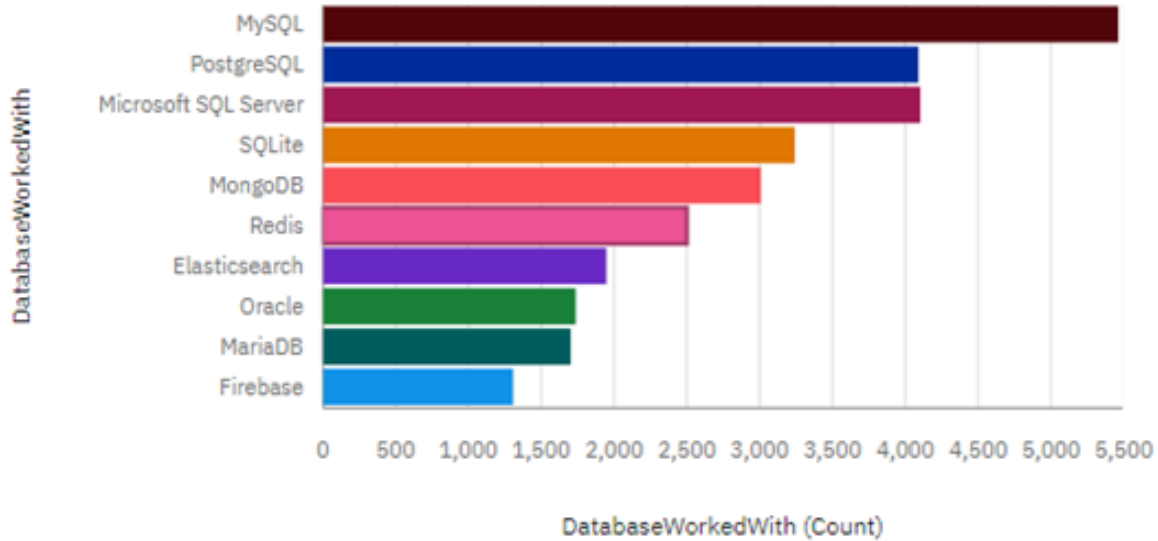
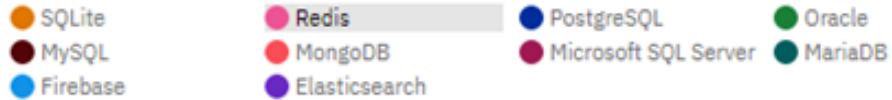
- JavaScript and HTML/CSS are both trending program languages in the current and future trends of programs.
- Python see an increase in popularity along with Bash/Shell/Power Shell dropping out of the top 5 programming languages.

DATABASE TRENDS

Current Year

Top 10 Database Worked With

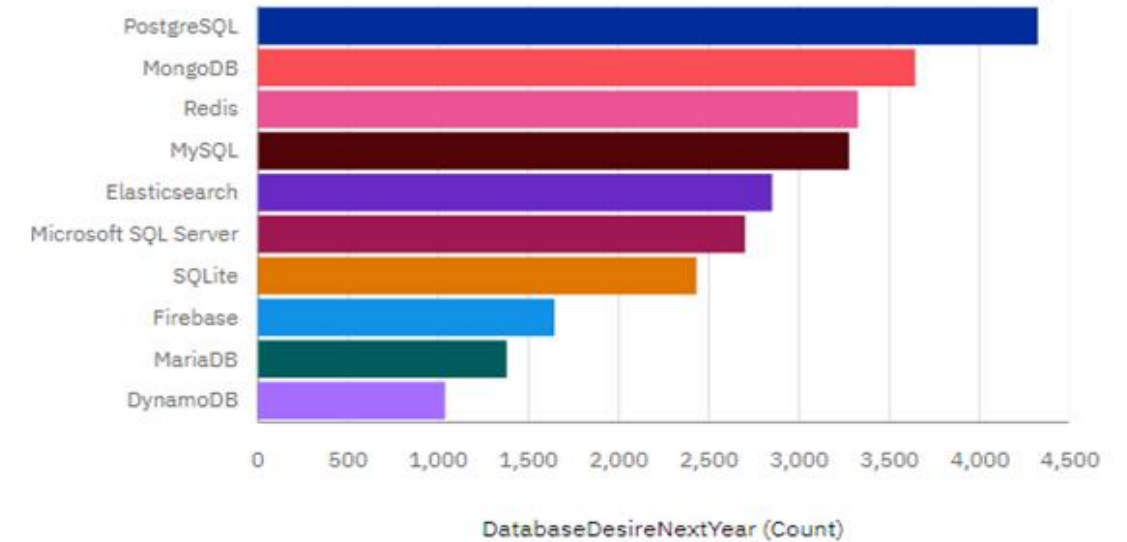
DatabaseWorkedWith



Next Year

Top 10 Database Desire NextYear

DatabaseDesireNextYear



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- The current year databases shows MySQL, Microsoft SQL Server and PostgreSQL as the TOP 3 databases.
- Both Microsoft SQLServer and SQLite potentially dropping out from the top 5 in Database for Next Year.
- PostgreSQL and Mongo MB could show an increasing trend and it is the most used Database for next year
- Redis and Elasticsearch substituting Microsoft SQLServer and SQLite in the Top5 next year.
- MySQL show a drop in usage as well.

Implications

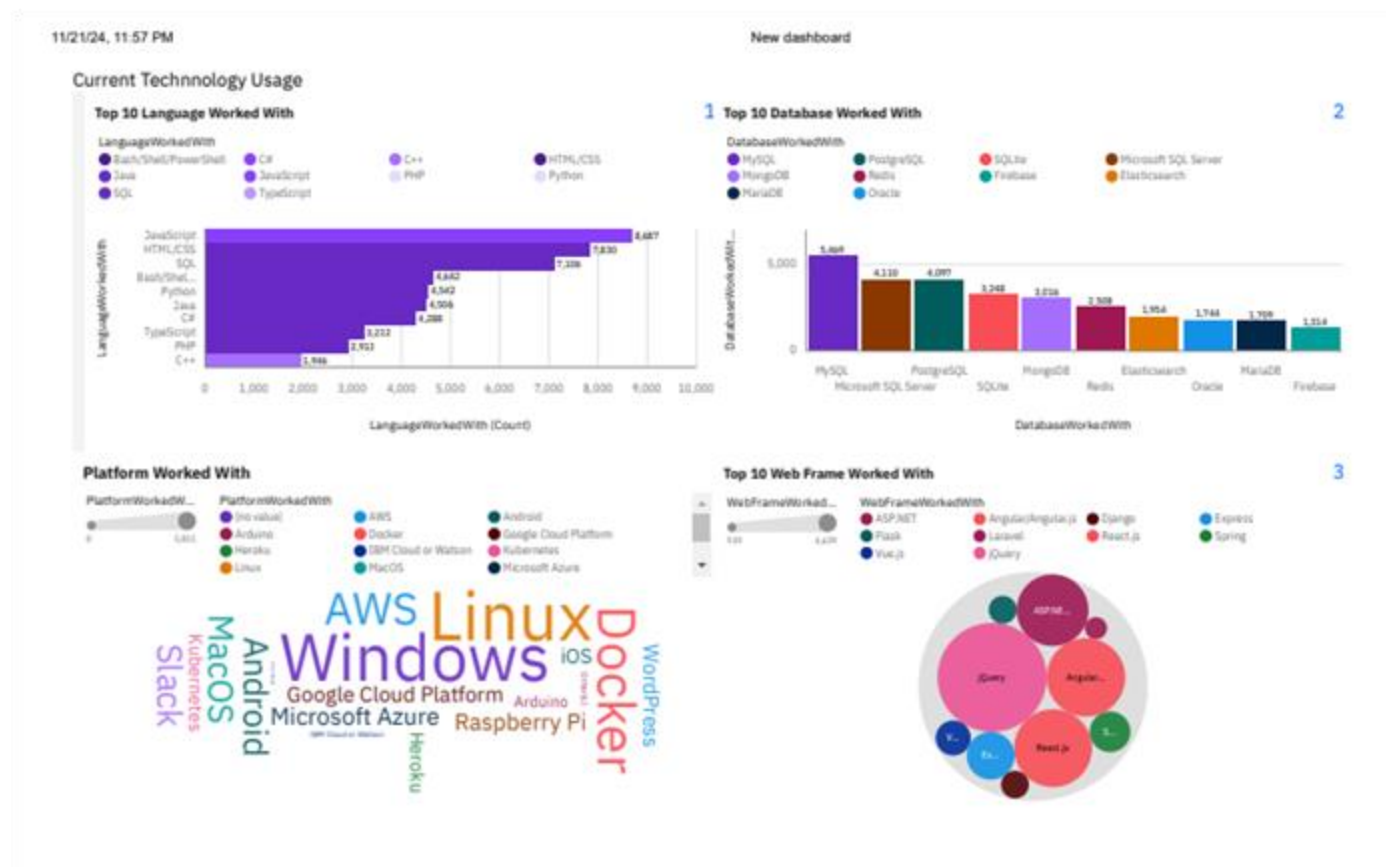
- Postgre SQL and MongoMB could show an increasing trend as the popular used Database for next year.
Their rise in usage will likely be propelled by further approach of cloud-native environments, growing data demands, and the result will shift towards microservices and modern application architectures.
- Redis and Elastic search replacing Microsoft SQL Server and SQLite in the Top5 next year.
- MySQL might show a drop in usage as well due to competition with top

DASHBOARD



<<https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&id=iEE021DB5F15C4CF7A17DF39AE974E9C8&objRef=iEE021DB5F15C4CF7A17DF39AE974E9C8&options%5BdisableGlassPrefetch%5D=true&options%5Bcollections%5D%5BcanvasExtension%5D%5Bid%5D=com.ibm.bi.dashboard.canvasExtension&options%5Bcollections%5D%5BfeatureExtension%5D>>

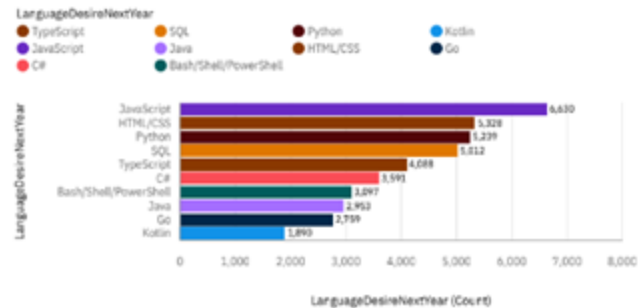
DASHBOARD TAB 1



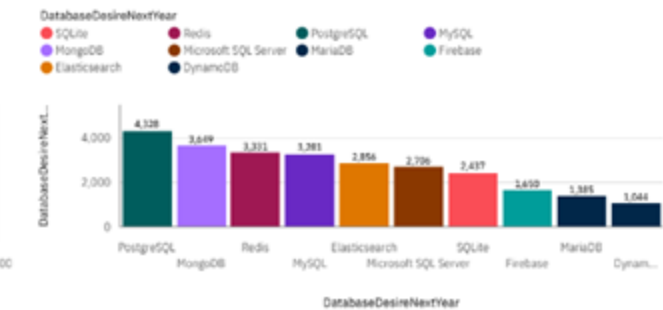
DASHBOARD TAB 2

Future Technology Trends

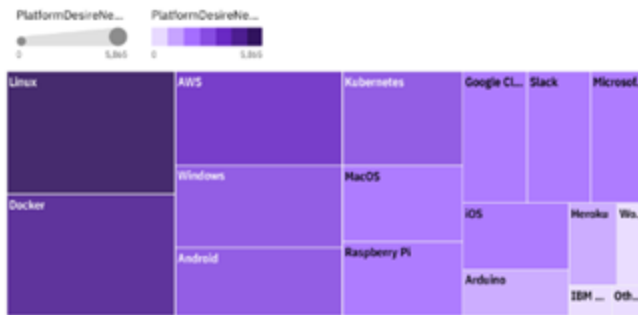
Top 10 Language Desire Next Year



Top 10 Database Desire Next Year



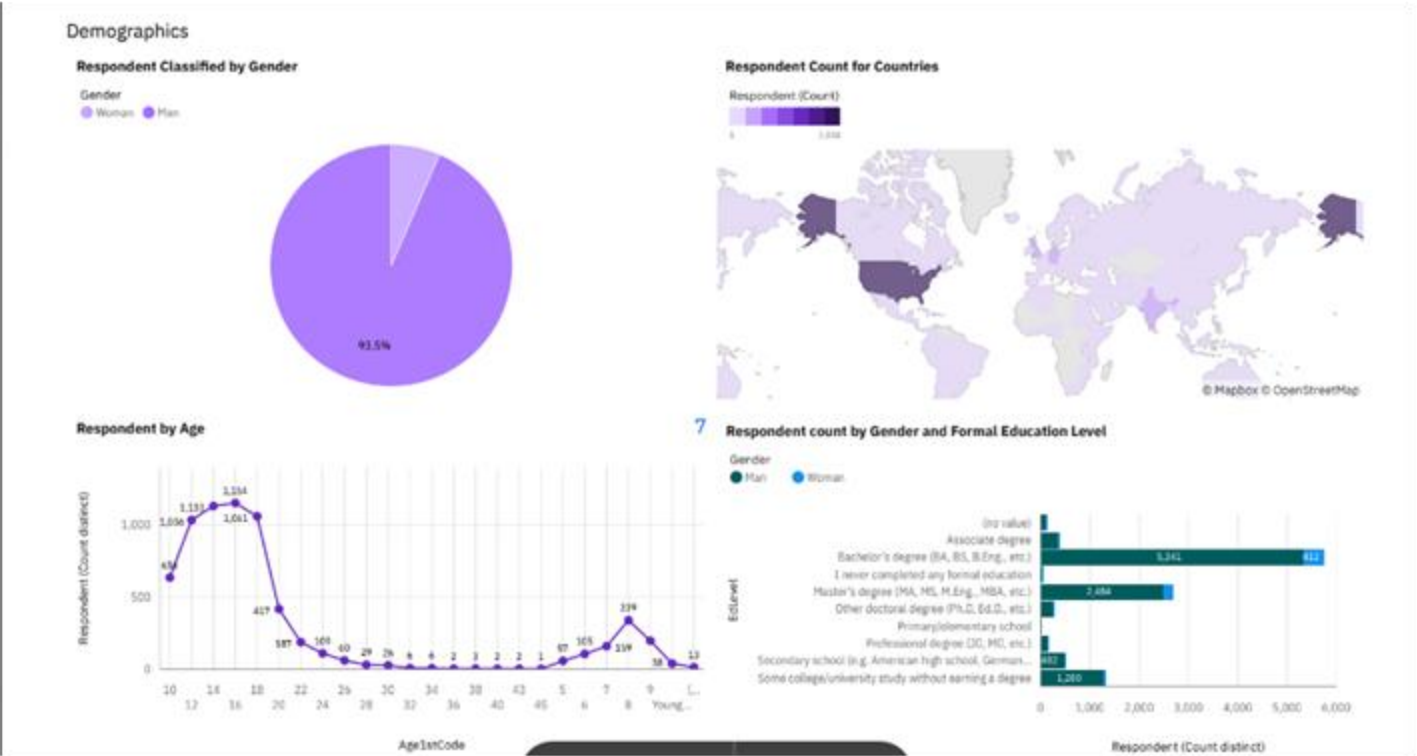
Platform Desire Next Year



Web Frame Desire Next Year



DASHBOARD TAB 3



DISCUSSION



- It is noticed that the Male Gender are quite attractive to IT Sector with 93.5% respondent.
- United State of Amercia shows the most amount of IT professionals
- The Programming Language Python is on an increasing trend with JavaScript and HTML/CSS to continue being used.

OVERALL FINDINGS & IMPLICATIONS

Findings

The current year databases see MySQL, Microsoft SQL Server and PostgreSQL as the TOP 3 database.

With both Microsoft SQL Server and SQLite potentially dropping out the top 5 in Database for Next Year.

Men are quite involved in the Tech space

Africa Countries are quite few compared to their counterparts

Python see a 20% increase for In-demand program desired next year

TypeScript enters the Top 5 for in-demand program desired next year

Implications

Python would see a sharp rise of in-demand programming language

PostgreSQL is also increase in popularity on the database to be used

Women Involvement should be looked at on how to enter the labour market

African countries involvement is very limited

CONCLUSION



- HTML/CSS and JavaScript are the most popular and mostly demanding programming language.
- PostgreSQL results shows that it will be the most in-demand database in the future
- African Countries are looking to enter the IT-Space but they would need future data
- The most used Platforms are Linux and Docker.
- Overall findings confirm a scenario that number of Men involved in the IT-Sector is higher.

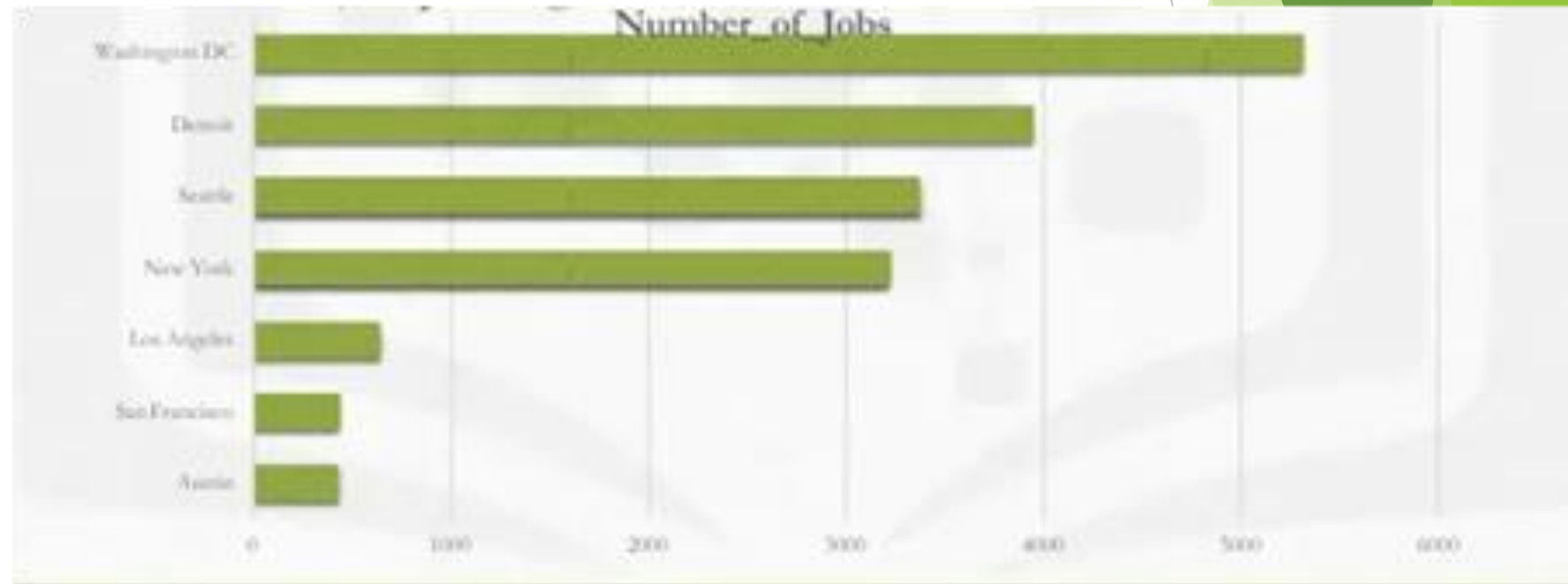
APPENDIX



- M5_survey_data_technologies_normalised
- M5_survey_data_demographics

JOB POSTINGS

In Module 1 you have collected the job posting data using Job API in a file named “job-postings.xlsx”. Present that data using a bar chart here. Order the bar chart in the descending order of the number of job postings.



POPULAR LANGUAGES

In Module 1 you have collected the job postings data using web scraping in a file named “popular-languages.csv”. Present that data using a bar chart here. Order the bar chart in the descending order of salary.

