IBM Data Analysts Capstone Project

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24 march 2024

IBM Developer

SKILLS NETWORK

OUTLINE

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

EXECUTIVE SUMMARY

Objective: The project aims to contextualize and analyze data to achieve specific goals.

Methodology: The methodology involves gathering data, analyzing it, and presenting the results through visualizations.

- Data Gathering: Data is collected using various methods to ensure its accuracy and relevance to the analysis.
- Data Analysis: The collected data is analyzed using appropriate techniques to derive meaningful insights.
- Data Visualizations: The analysis results are presented using graphs and trends to make them easy to understand and interpret.

Results Presentation:

The findings are presented in a clear and concise manner, supported by visual representations.

Discussion:

A discussion is held to interpret the findings and discuss their implications.

Conclusions:

The project concludes with final insights drawn from the research, summarizing the key findings and their significance.

INTRODUCTION

"Stack Overflow's annual Developer Survey stands out as the largest and most extensive survey of global coders. With nearly 90,000 developers participating, it provides valuable insights into the coding community's trends and preferences. While the results offer a broad view, it's important to note that they may not perfectly represent every segment of developers worldwide. This survey serves as a key tool for predicting future developer trends and offers a comprehensive characterization of developers around the globe."

METHODOLOGY

Data source: stack overflow developer survey 2019
Collecting data and explore it using
- APIs
- Web Scrapping

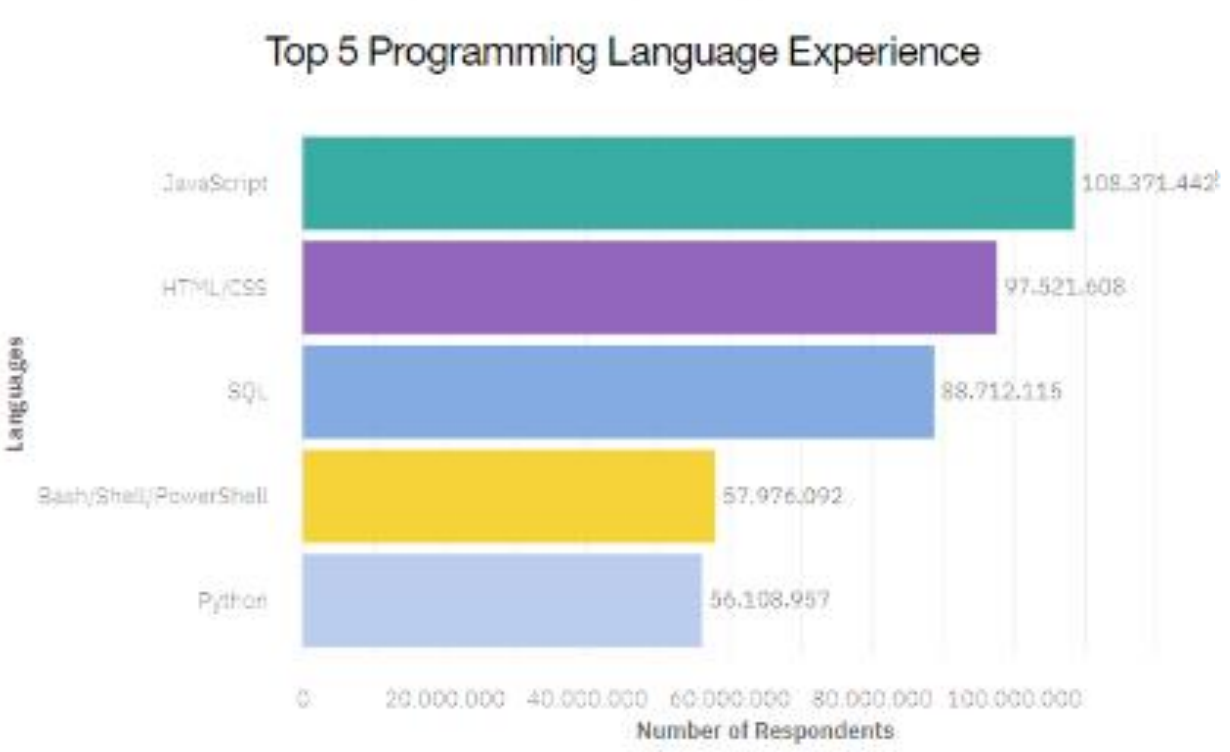
Data Wrangling to clean data and make it ready for data analysis
Exploratory data analysis
Data visualization :
- Visualized distribution of data, relation between two feature, composition and comparison of data

Create dashboard Using Cognos Analytics

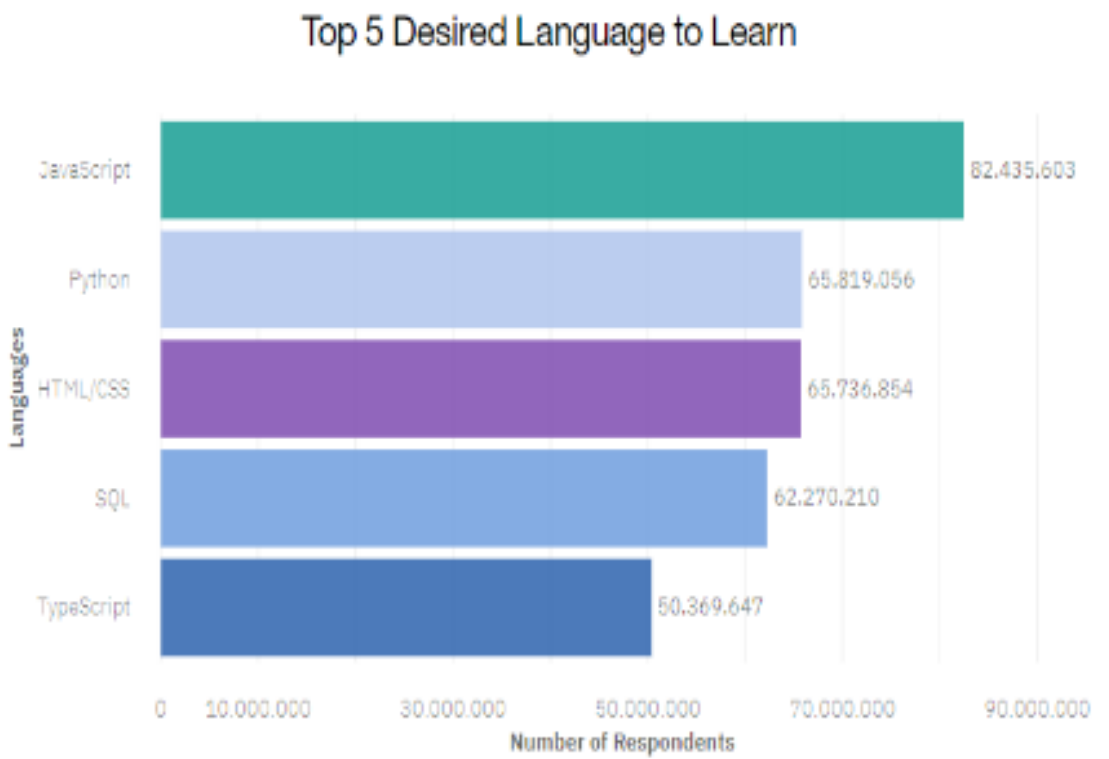
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

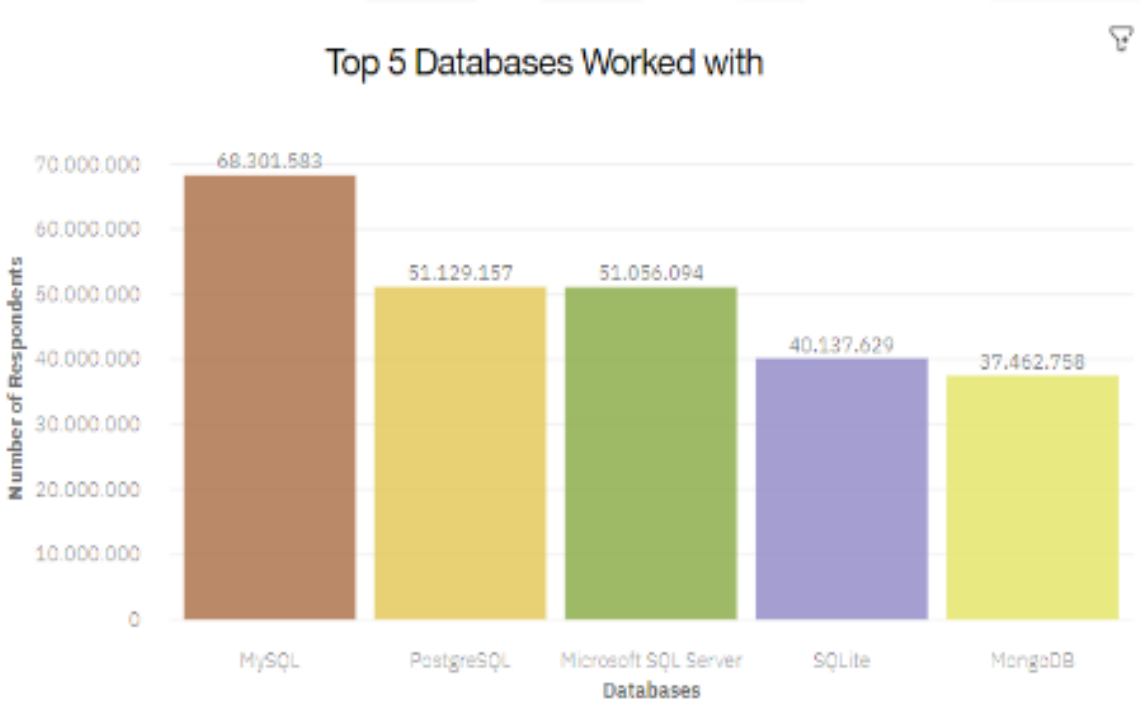
- JavaScript is most used language.
- Python is fastest growing at 2nd position.
- Most people shows interest in TypeScript.

Implications

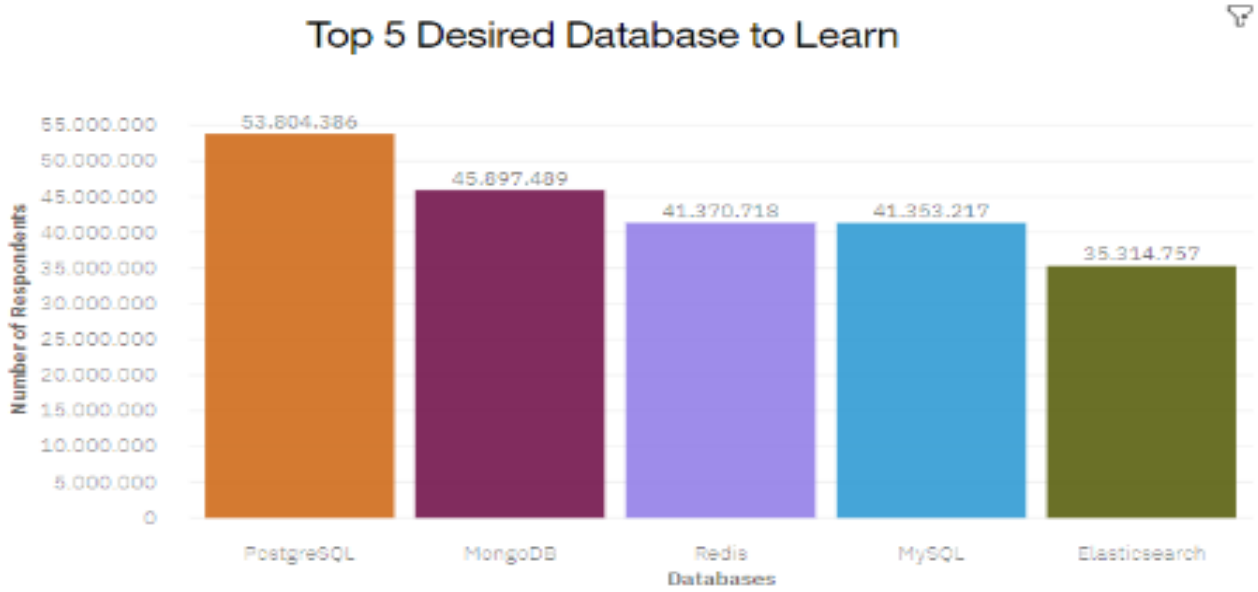
- Learning Python and TypeScript is essential.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is most used database.
- But for next year people loosing interest in MySQL.
- Increasing interest in PostgreSQL and MongoDB.

Implications

- PostgreSQL and MongoDB are popular in the market.
- MySQL loose their position.

DASHBOARD

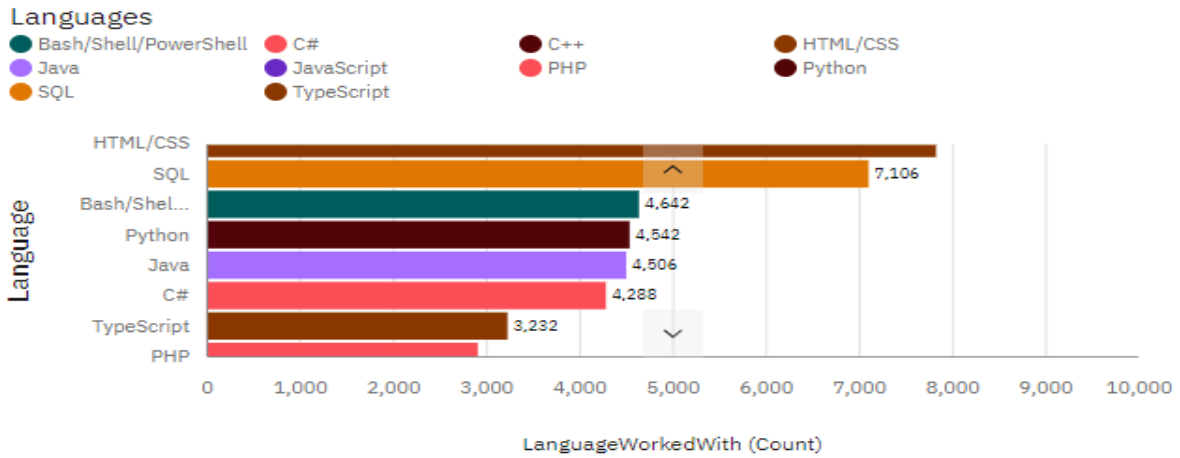
https://github.com/ShrutikaSelokar/finalassignment

DASHBOARD TAB 1

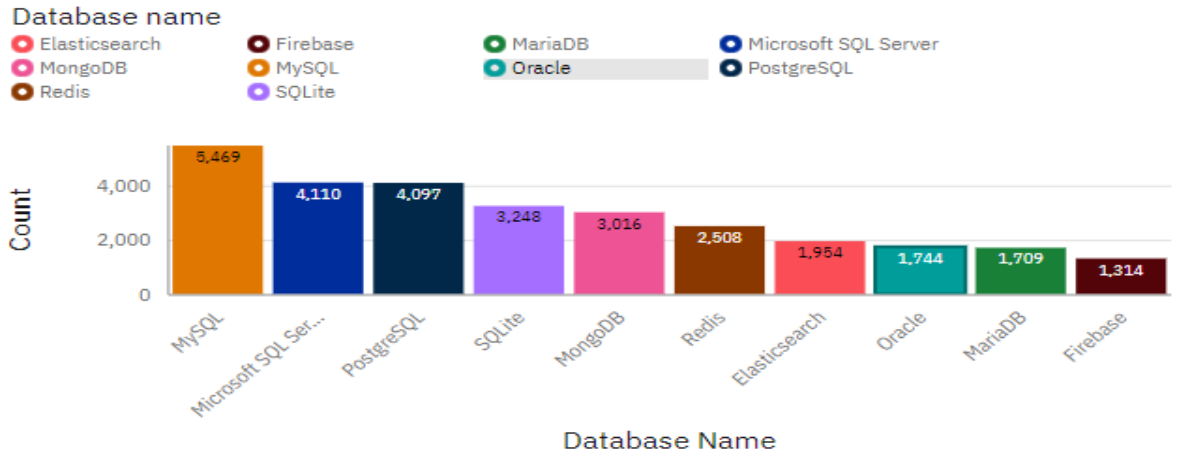
Edit | 100% | Analytics | Filters

Tab 1

Top 10 Languages Work With

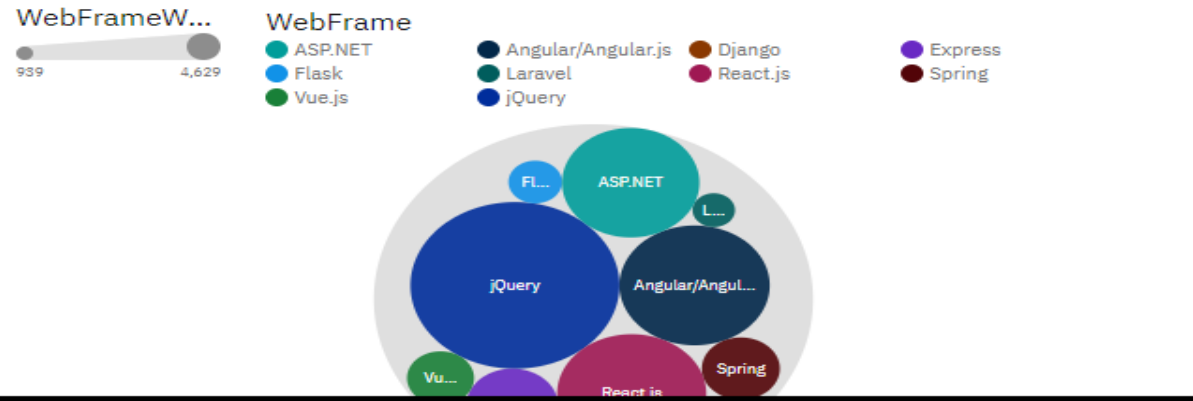


Top 10 Database Worked With



Word Cloud Chart for Platform Worked With

Top 10 WebFrame Worked With

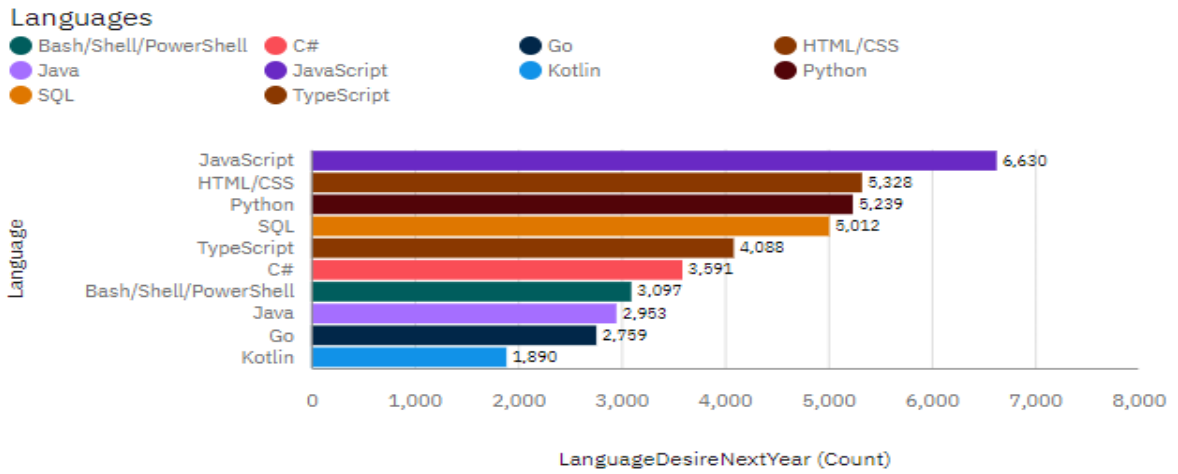


DASHBOARD TAB 2

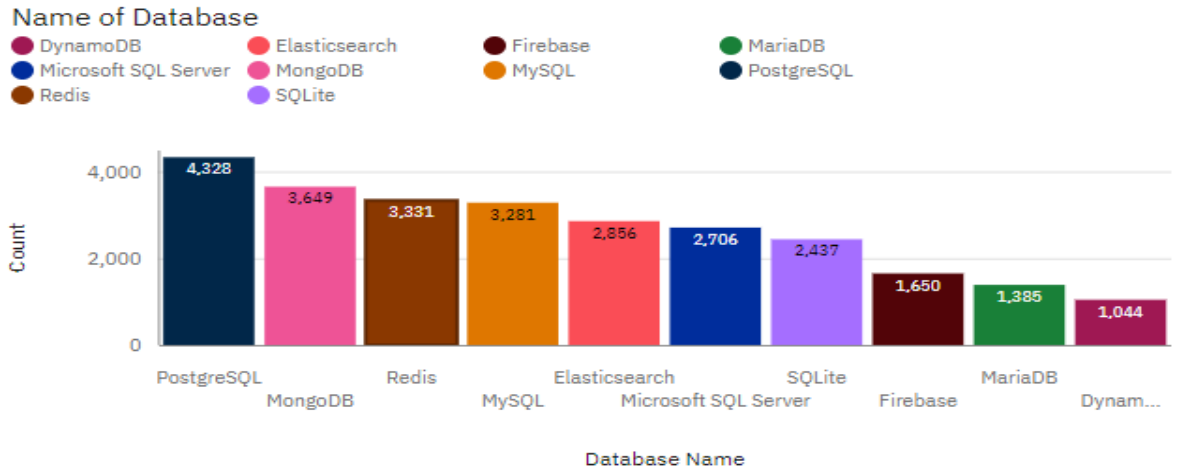
Edit | 100% | Analytics | Filters

Tab 1

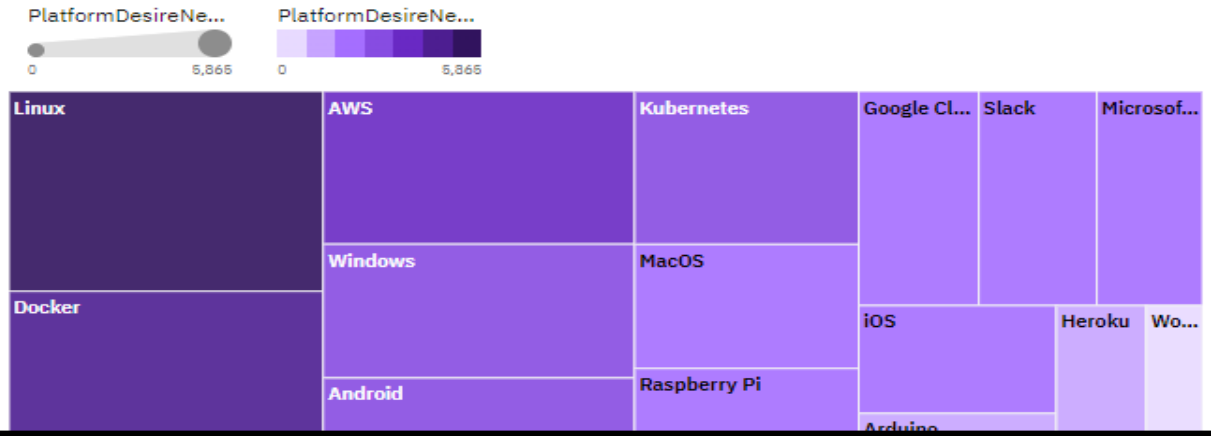
Top 10 Languages Desire For Next year



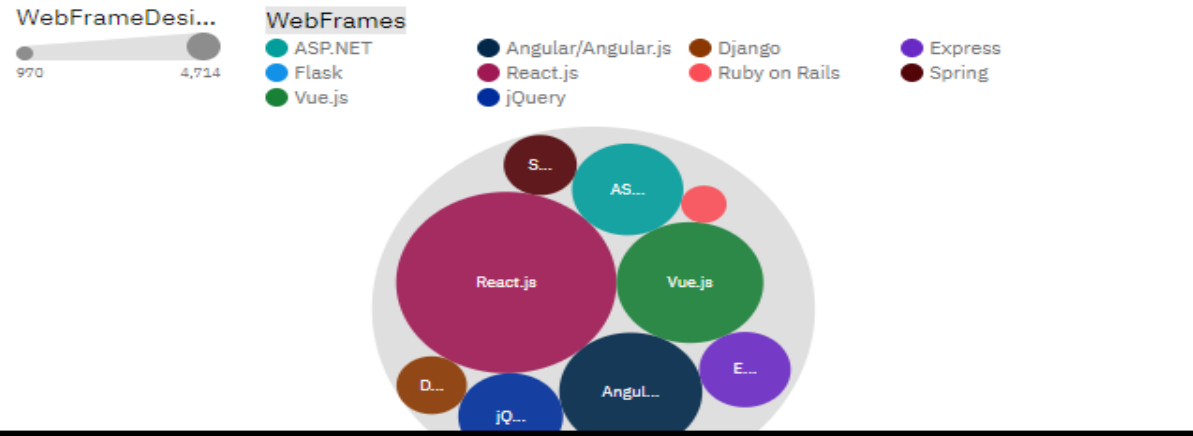
Top 10 Database Desire For Next Year



Tree Map for Platform Desire for Next year



Top 10 WebFrame Desire For Next Year

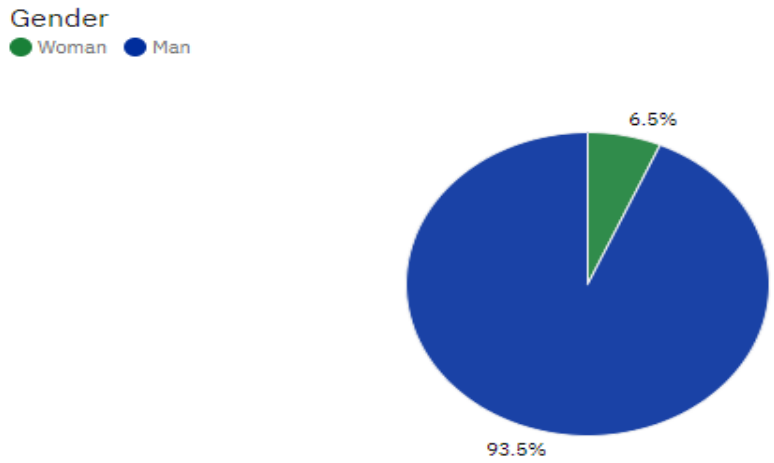


DASHBOARD TAB 3

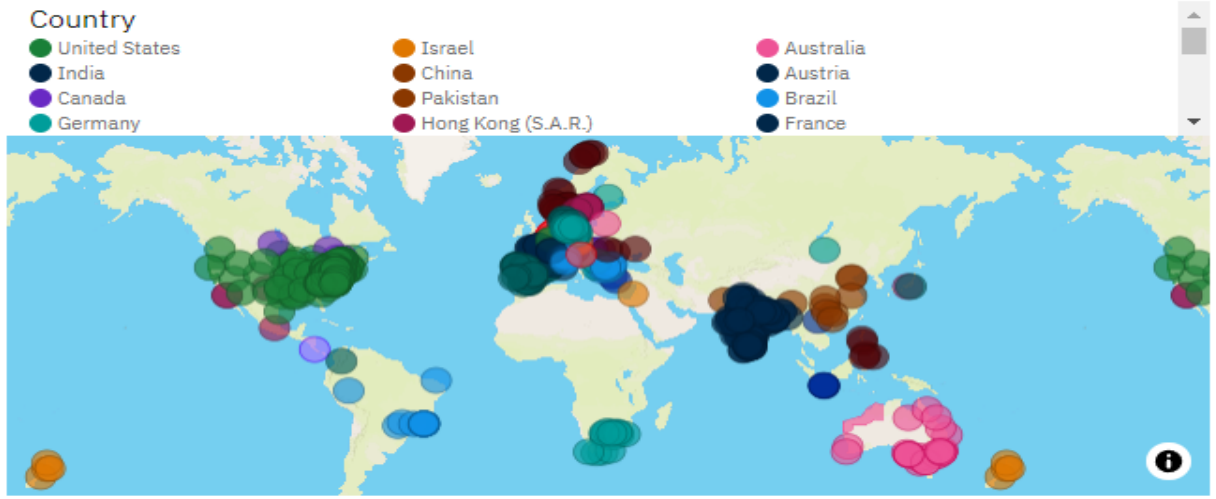
Edit | 100% | Analytics | Filters

Tab 1

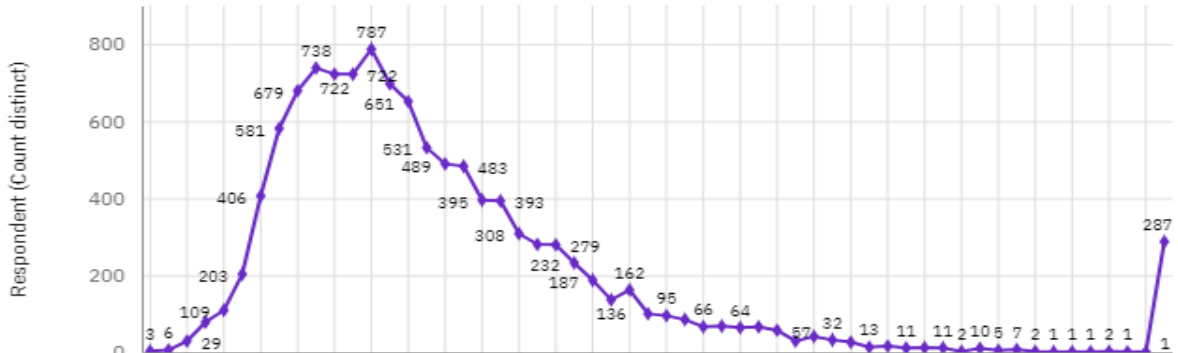
Respondent Classified by Gender



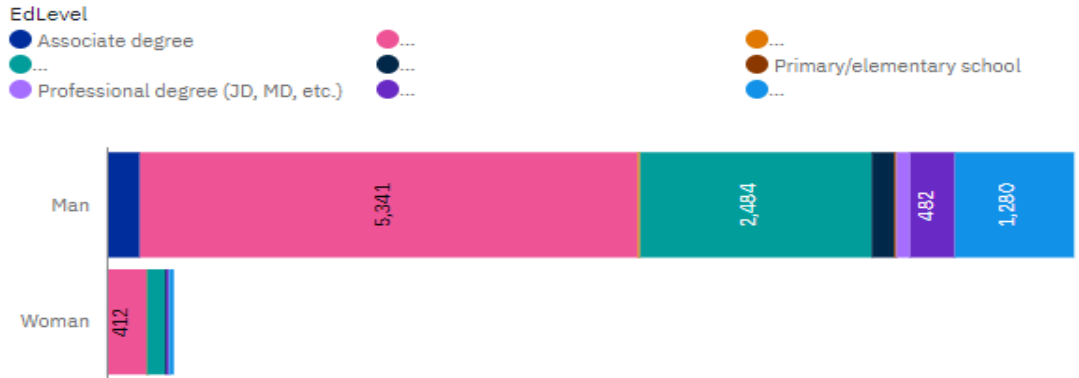
Country-Wise Respondent



Respondent by Age



Respondent by Gender Classified by Formal Education Level



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript widely used and TypeScript getting popular.
- Over 90% young male developers.
- Developers mostly located in developed countries like US.

Implications

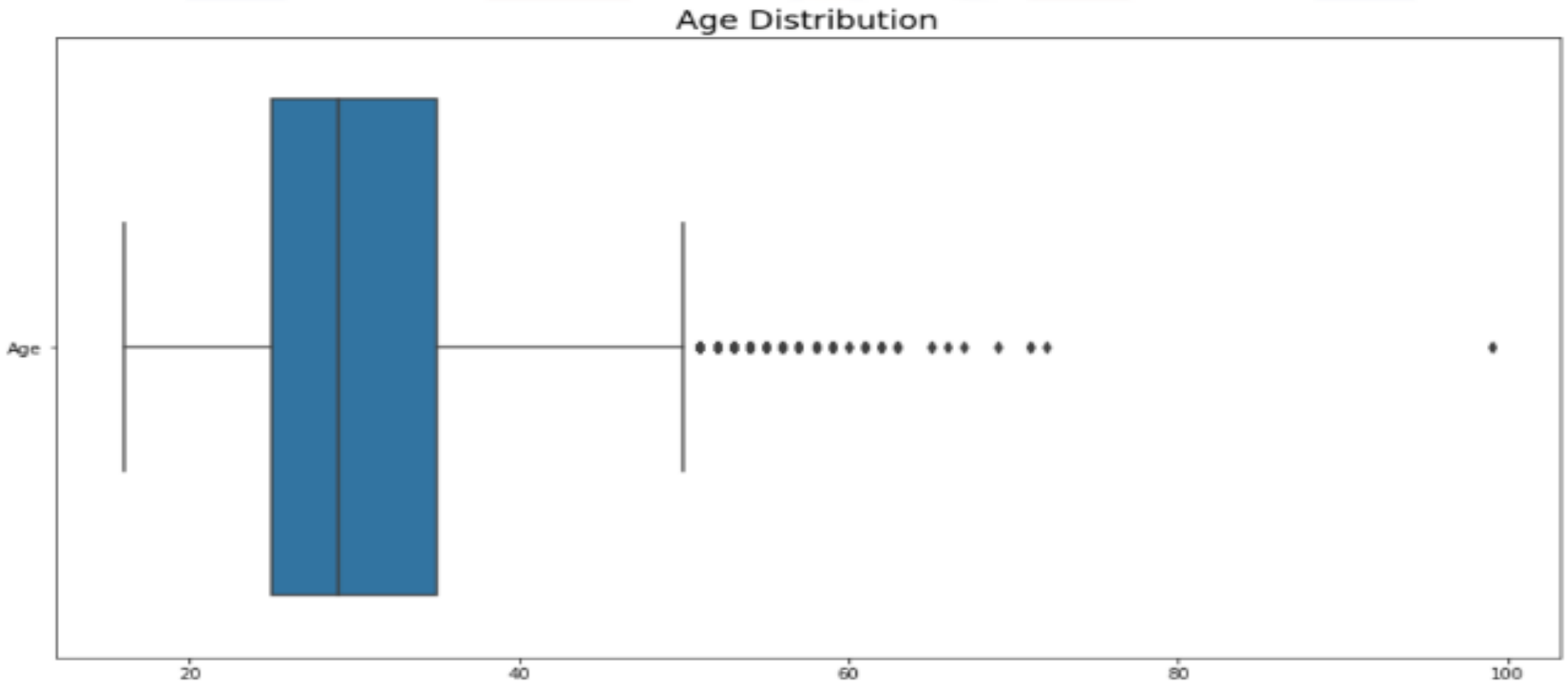
- JavaScript and TypeScript web frames gaining followers.
- Global polarization of developers location and gender.
- Young developers without postgrad studies on its majority.

CONCLUSION

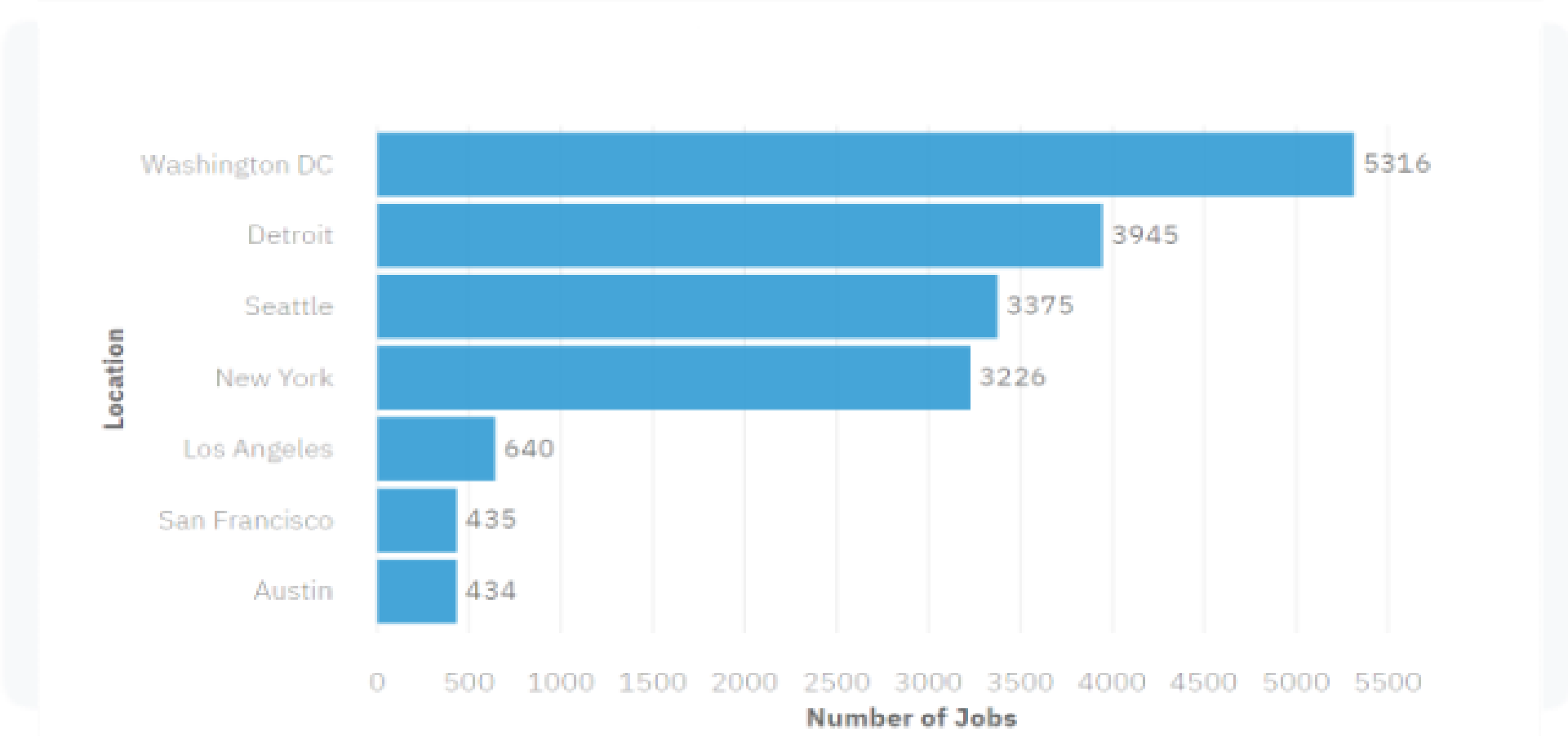
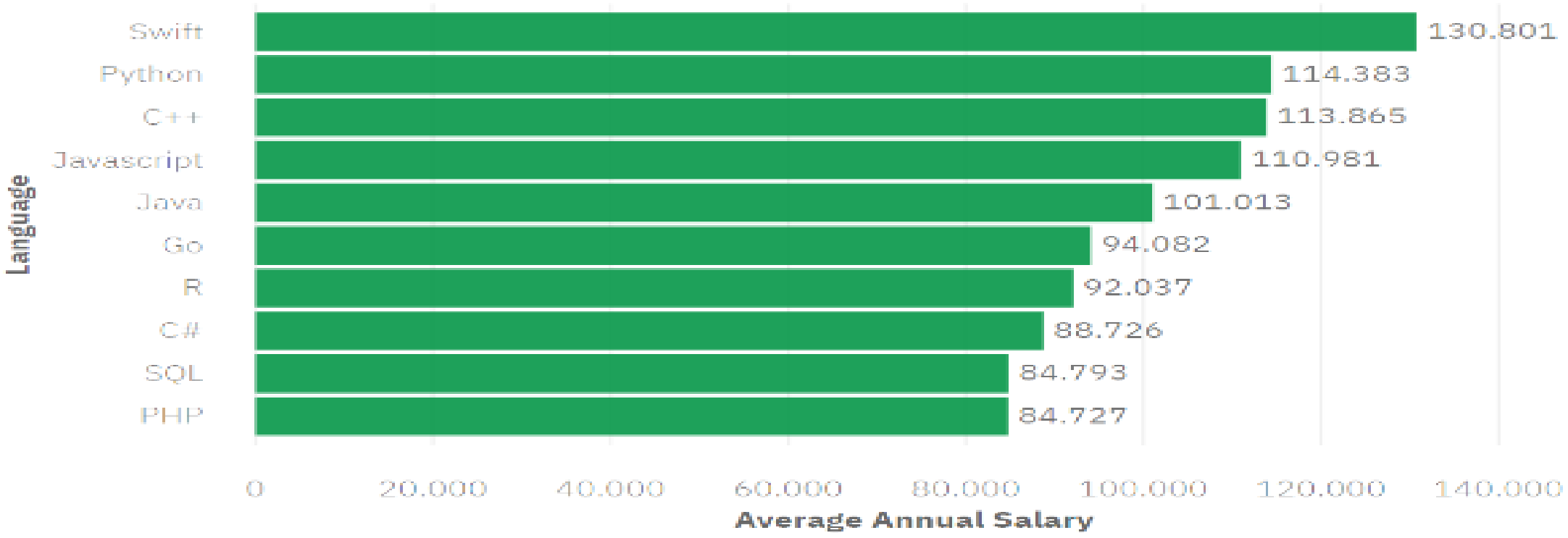
- Developers are people with very marked characteristics.
- A good idea of popularity trends of different tools, platforms and languages can be obtained.
- There is a job to be done to spread accessibility of this labor market to countries in development.

APPENDIX

AGE DISTRIBUTION BOXPLOT



JOB POSTINGS



POPULAR LANGUAGES