



IBM Data Analyst Capstone Project

Sudha Devarakonda
22/04/2024

OUTLINE



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

EXECUTIVE SUMMARY



- Data framing and analysis goal.
- Methodology and description
 - Data gathering
 - Data analysis
 - Data visualization
- Result presentation, support with graph and trends
- Discussion of overall findings
- Final conclusion on the result

INTRODUCTION



- Stack Overflows annual developer Survey is the largest survey
- Results don't represent everyone in the developer community evenly
- Nearly 90000 developers
- Trends to predict where the developers are going
- Characterization of the developers around the globe.

METHODOLOGY



- Data Wrangling
- Exploratory Data analysis(EDA)
- Data Visualization
- Dashboards
- Collect survey data and explore it's content
 - Web Scrapping
 - API

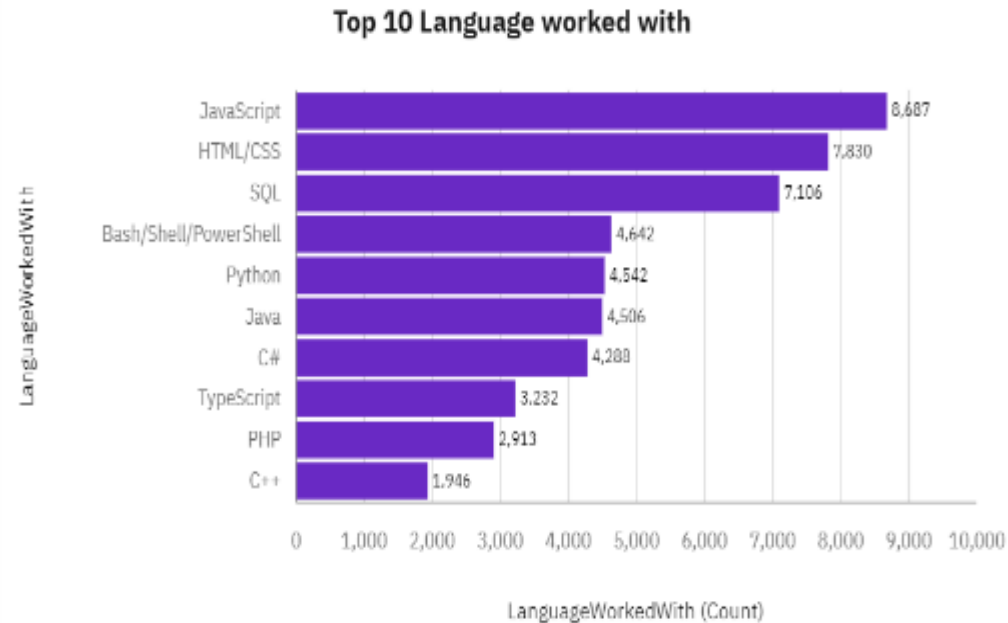
RESULTS



PROGRAMMING LANGUAGE TRENDS

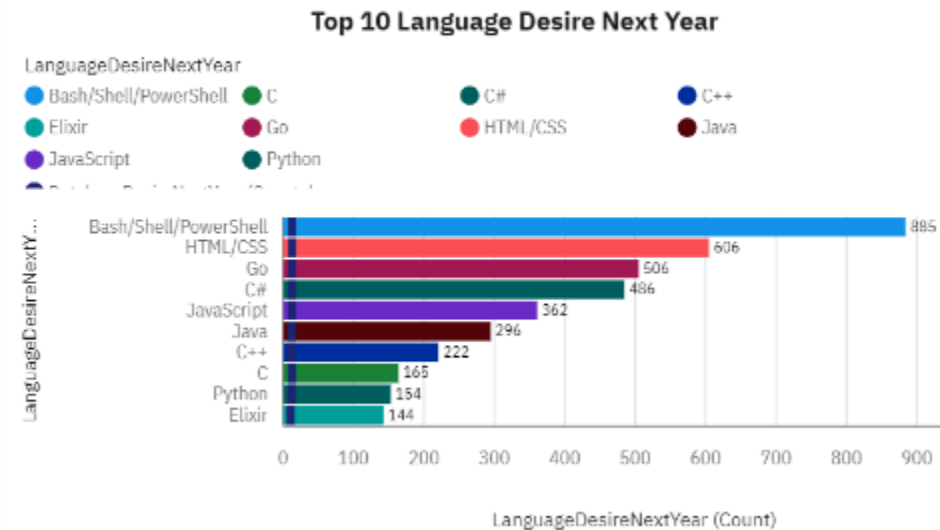
Current Year

Current technology Usage



Next Year

Future Technology trend



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

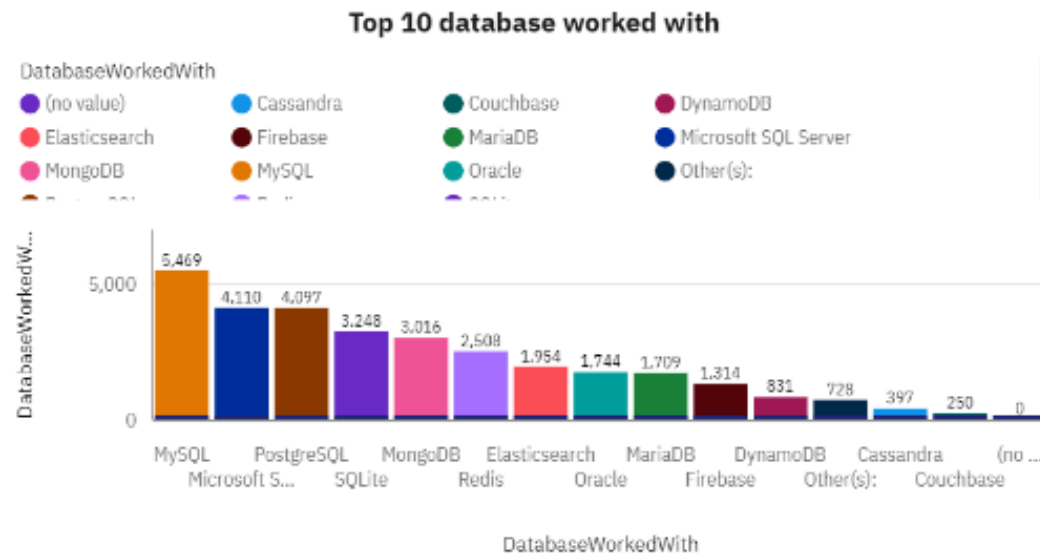
- JavaScript leading
- Bash shell will lead
- Python possible leading language

Implications

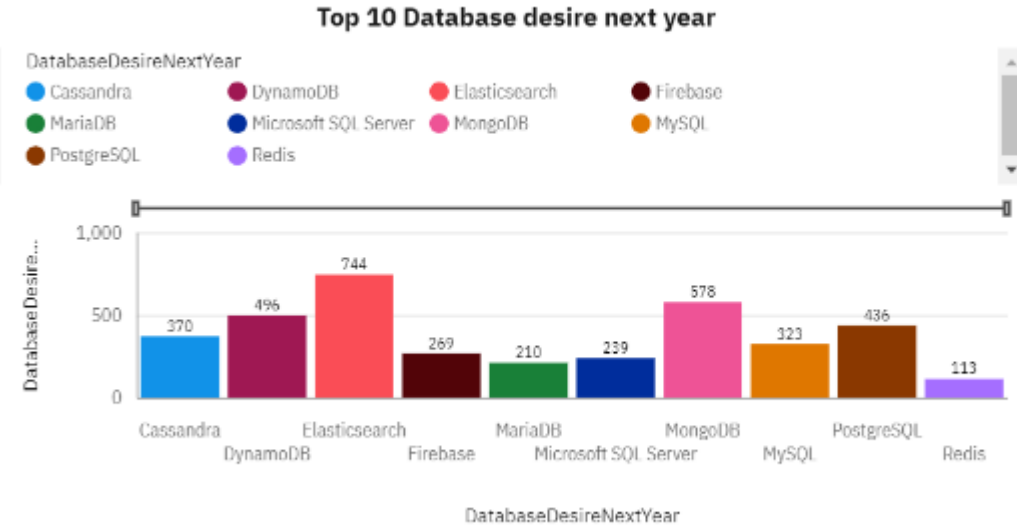
- Possible developer migration to Python
- Inclined to Data analysis jobs
- Next trend will be web development

DATABASE TRENDS

Current Trend



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- SQL server most demanding DB
- PostgreSQL will lead

Implications

- MongoDB will lead the market
- PostgreSQL will dominate SQL

DASHBOARD



https://github.com/SudhaRaniD/Dashboard_IBMCognos/blob/main/Building%20a%20Dashboard%20with%20IBM%20Cognos%20Analytics.pdf

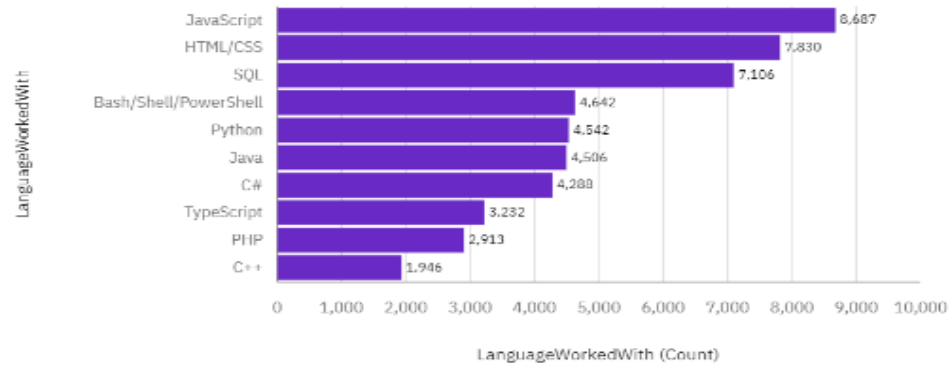
DASHBOARD TAB 1

4/22/24, 12:58 PM

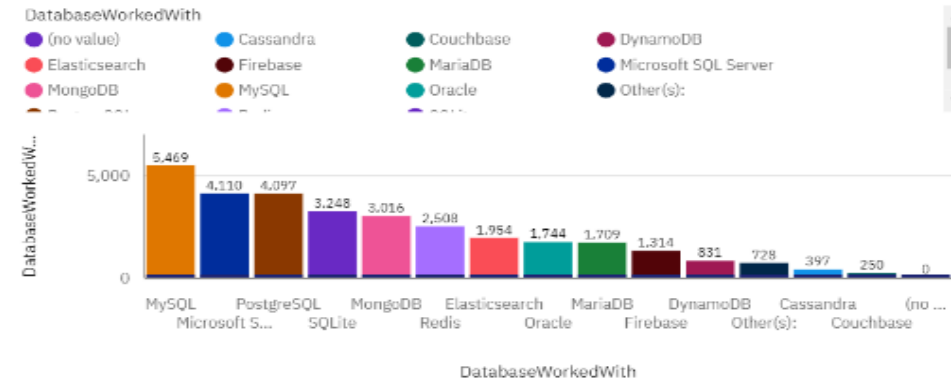
Current Trend

Current technology Usage

Top 10 Language worked with



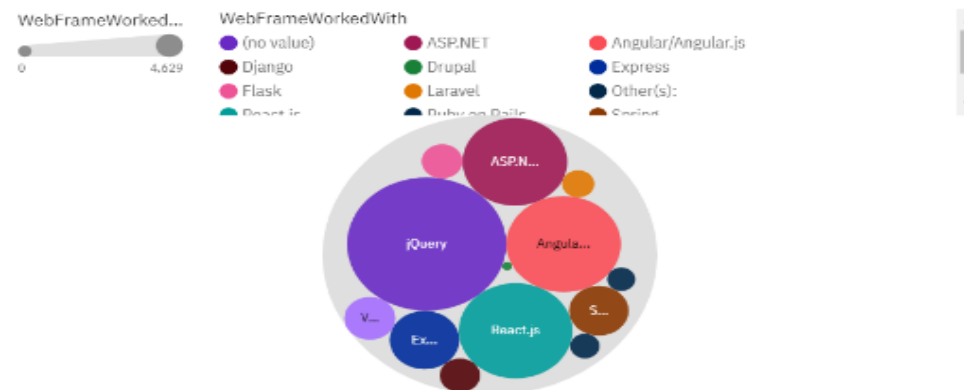
Top 10 database worked with



Platform Worked With



Web Frame Worked with

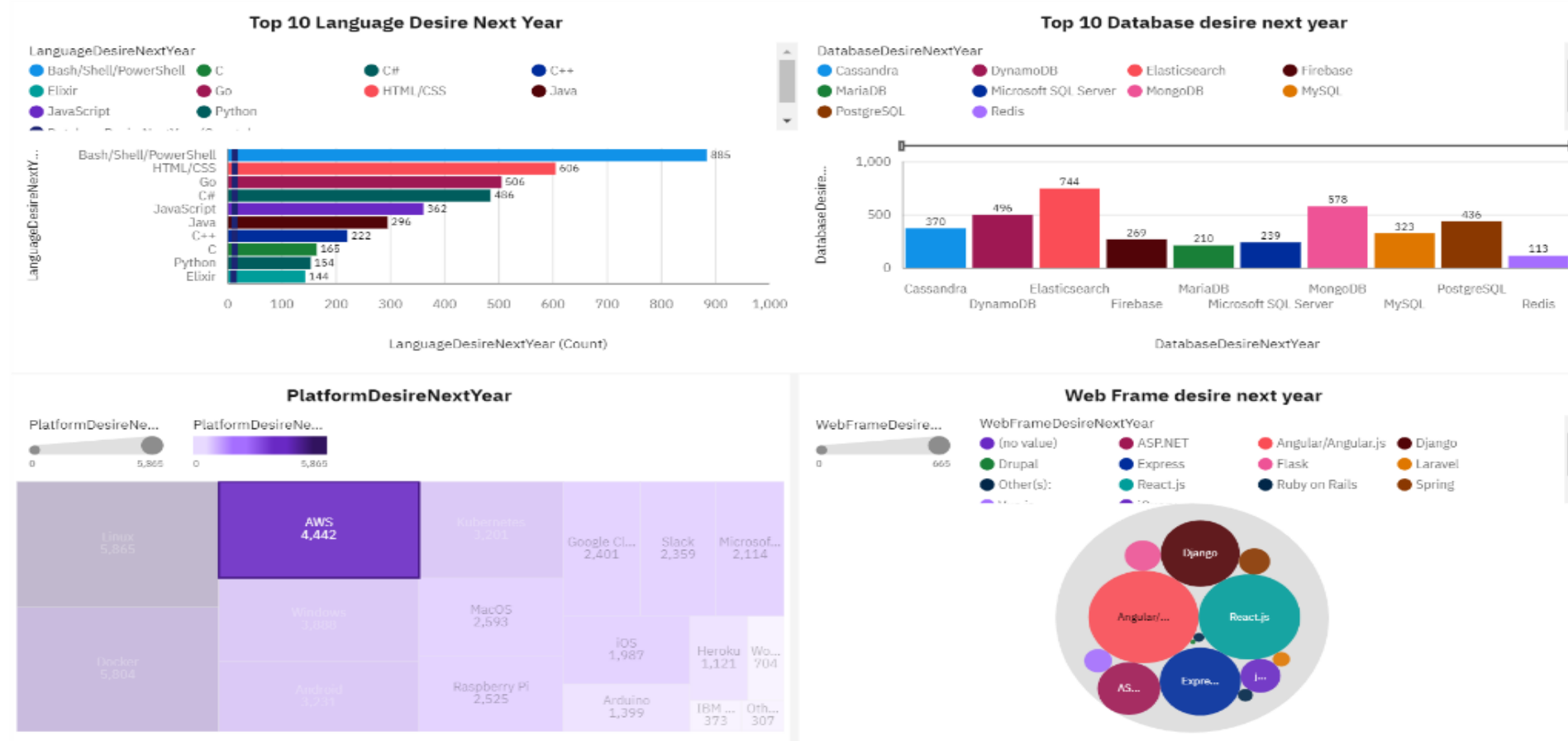


DASHBOARD TAB 2

4/22/24, 12:58 PM

Current Trend

Future Technology trend



DASHBOARD TAB 3

4/22/24, 12:58 PM

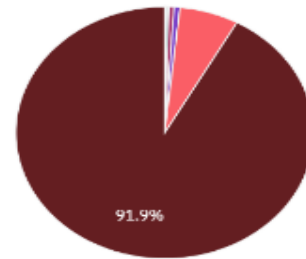
Current Trend

Demographics

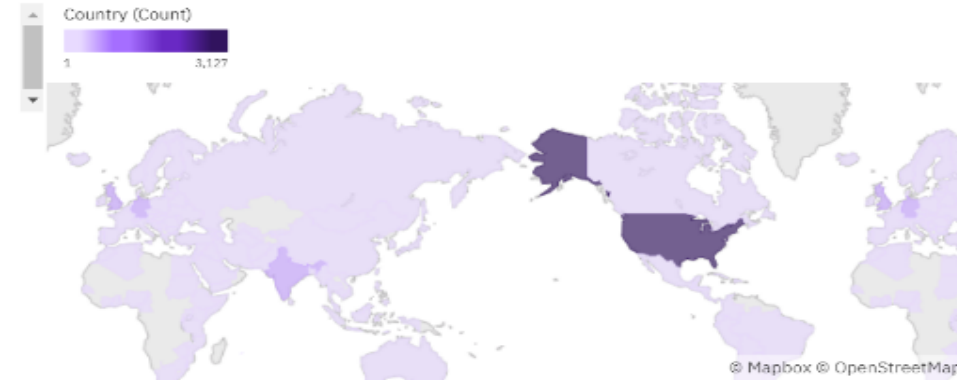
Respondent by Gender

Gender

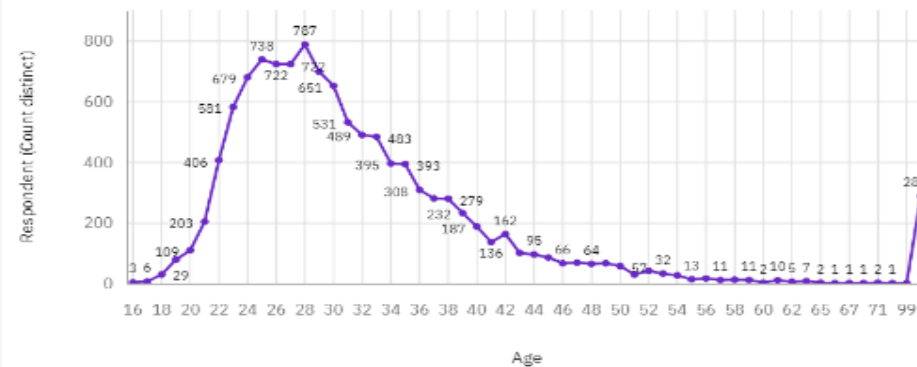
- Woman;Man;Non-binary, genderq...
- Man;Non-binary, genderqueer, or ...
- Woman
- Woman;Man
- Non-binary, genderqueer, or gend...
- Man
- Woman;Non-binary, genderqueer, ...
- (no value)



Respondent Count for Countries



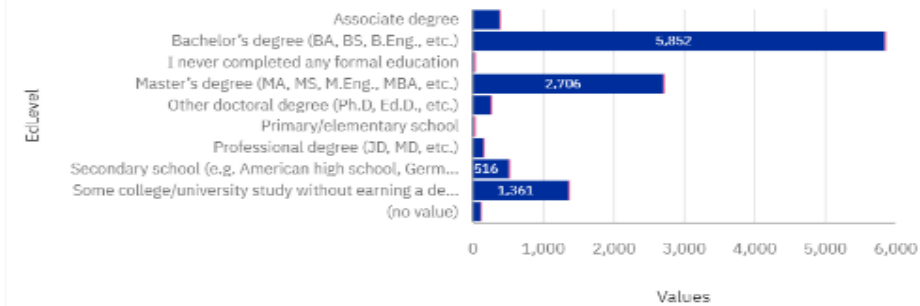
Respondent Count by Age



Respondent and Gender by EdLevel

Measures

- Respondent
- Gender



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript Widely used and TypeScript getting popular
- SQL and Python are in good position
- Developers mostly located the developed countries

Implications

- Typescript will capture the market
- MongoDB will lead and more python developers
- Young developer with postgrad on it's majority

CONCLUSION



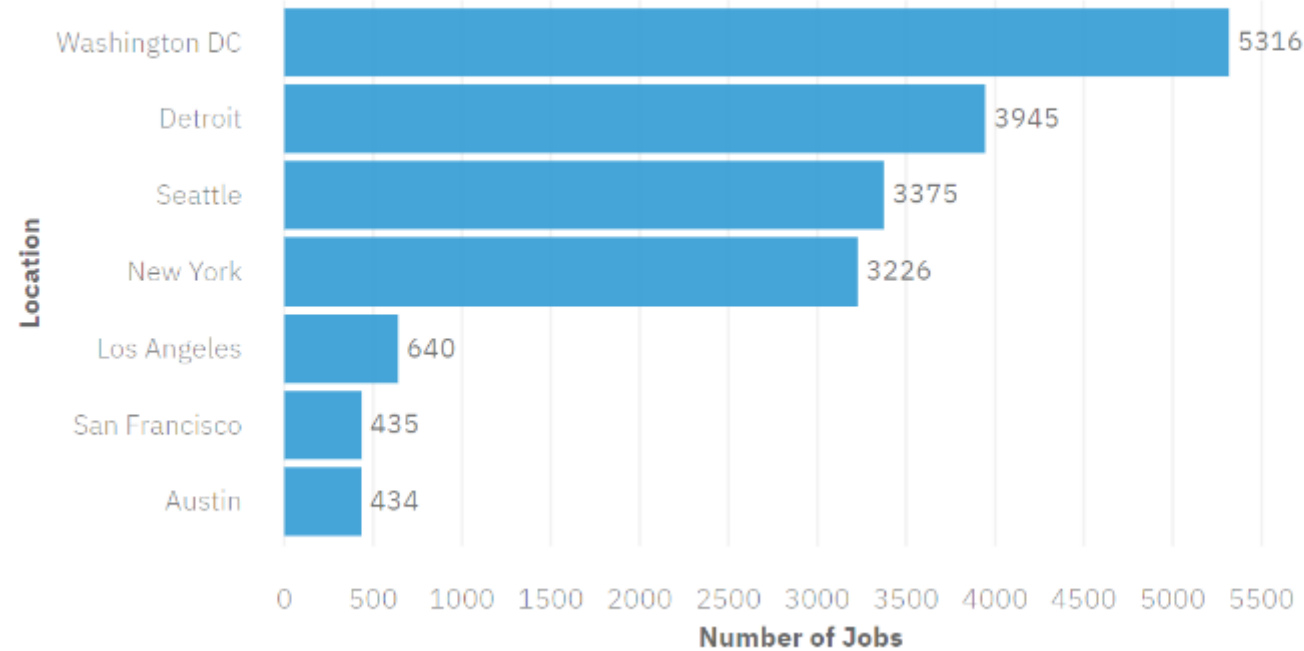
- Time to develop under developed countries with some kind of training to make best developers and professionals.
- Need to encourage the female developers
- Quick adoption of new technology to avoid the unemployment in the tech field as the technologies are keep on changing.

APPENDIX



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

JOB POSTINGS



POPULAR LANGUAGES

