STACK OVERFLOW DEVELOPER SURVEY

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OUTLINE

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

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EXECUTIVE SUMMARY

- Data contextualization and analysis goal.

- Methodology description.

- Data gathering.

- Data analysis.

- Data visualizations.

- Results presentation supported with graphs and trends.

- Discussion of overall findings and implications regarding the results previously exposed.

- Final conclusions of the carried-out research.

INTRODUCTION

- Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of people who code around the world.

- Results don't represent everyone in the developer community evenly.

- Nearly 90,000 developers.

- Trends to predict where the developers are going.

- Characterization of developers around the globe.

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METHODOLOGY

- **Collect survey data & explore its content**
- Web Scraping
- APIs.
- Request library.
- **Data Wrangling**
- **Exploratory data analysis**
- Analyzing data distribution.
- Handling outliers.
- Correlations.
- **Data Visualization**
- Highlight distribution of data, relationships, the composition and comparison of data.
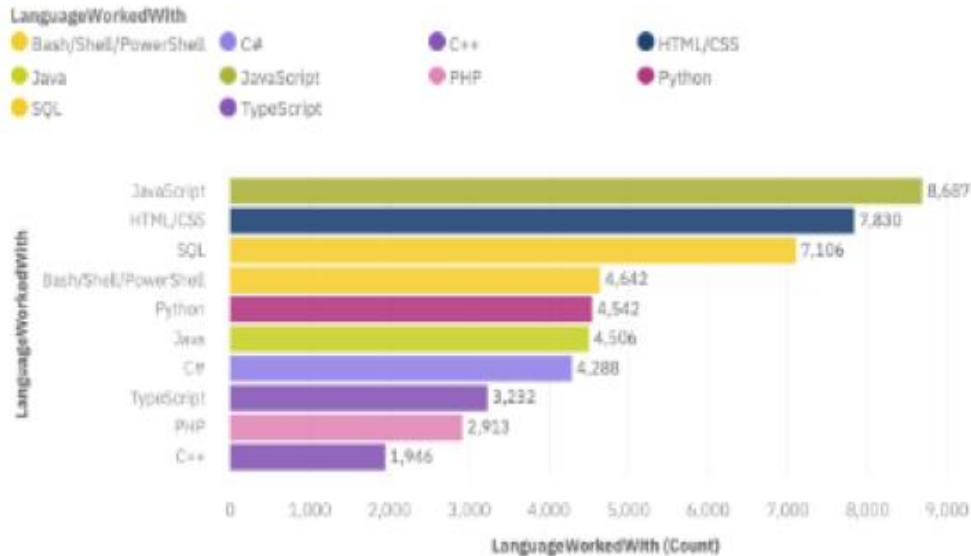- **Dashboards**

RESULTS
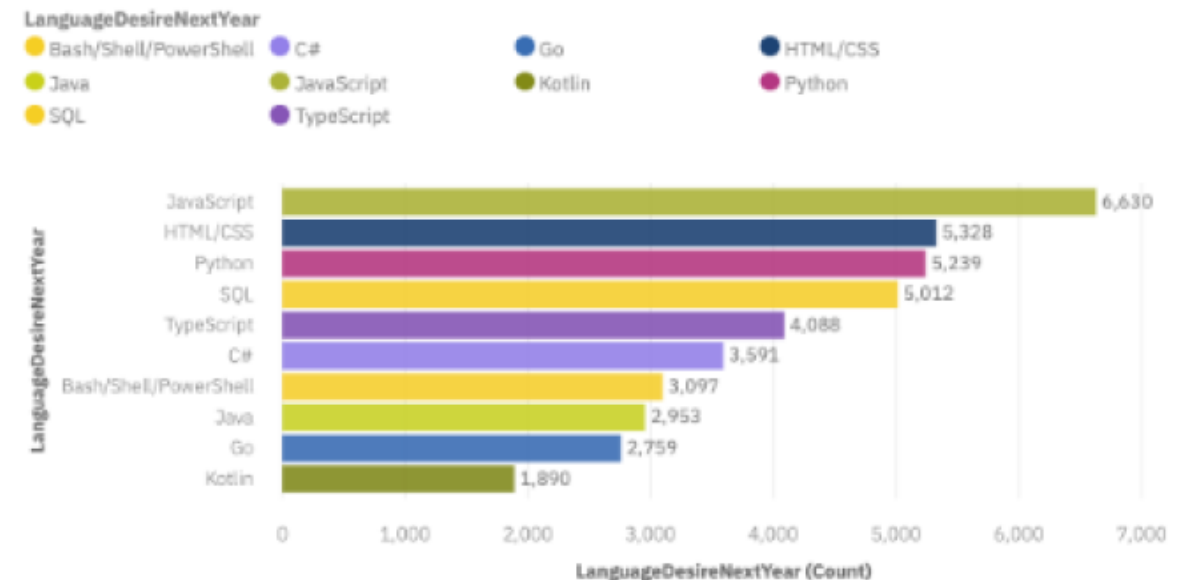
PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript seems to keep as leading language.

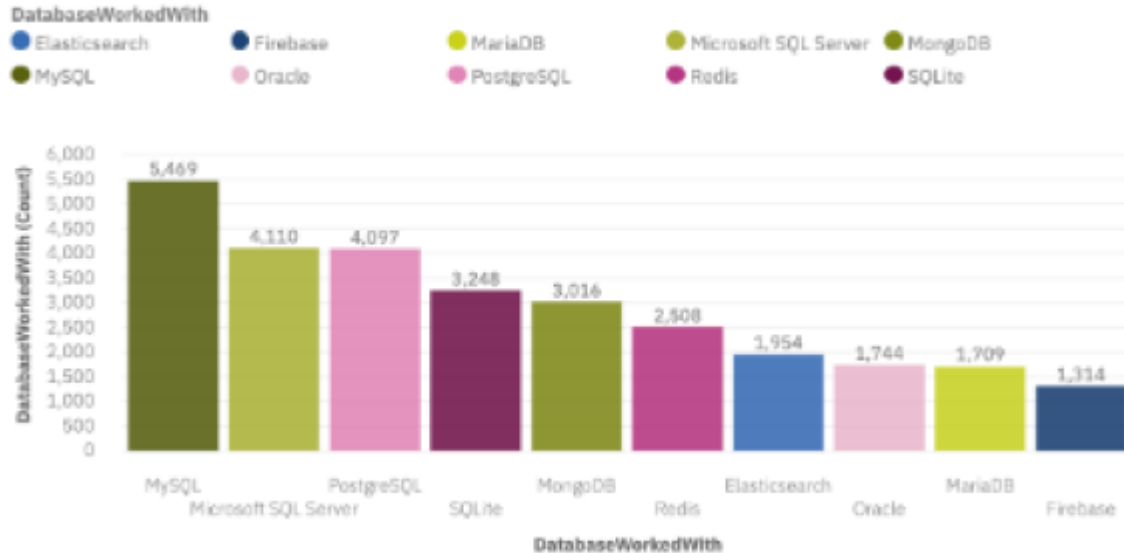- Python fastest-growing.

- Great interest in TypeScript

Implications

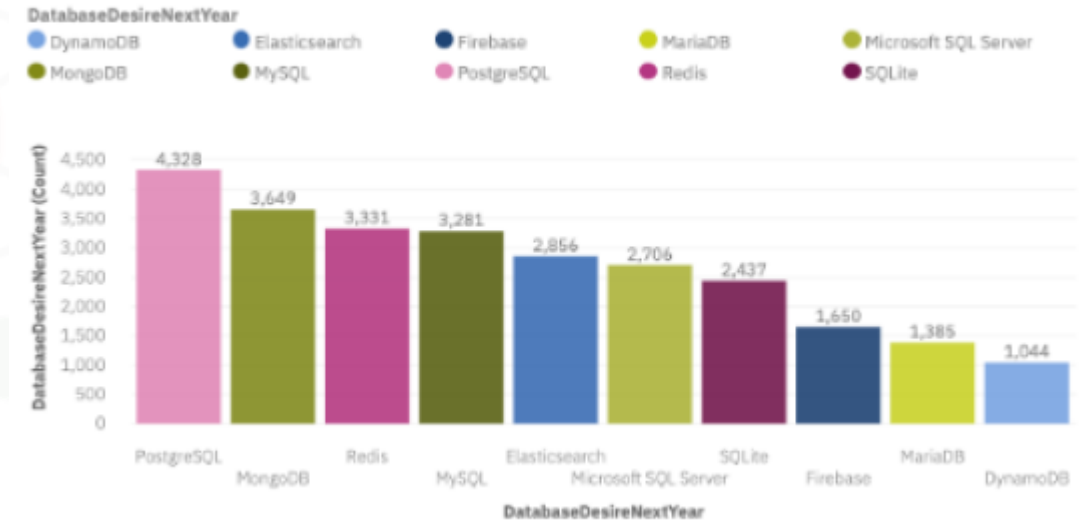- Possible developers' migration from JavaScript to TypeScript.

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DATABASE TRENDS

Current Year

Next Year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL as most used database.
- Lack of interest in Microsoft SQL Server and SQLite.
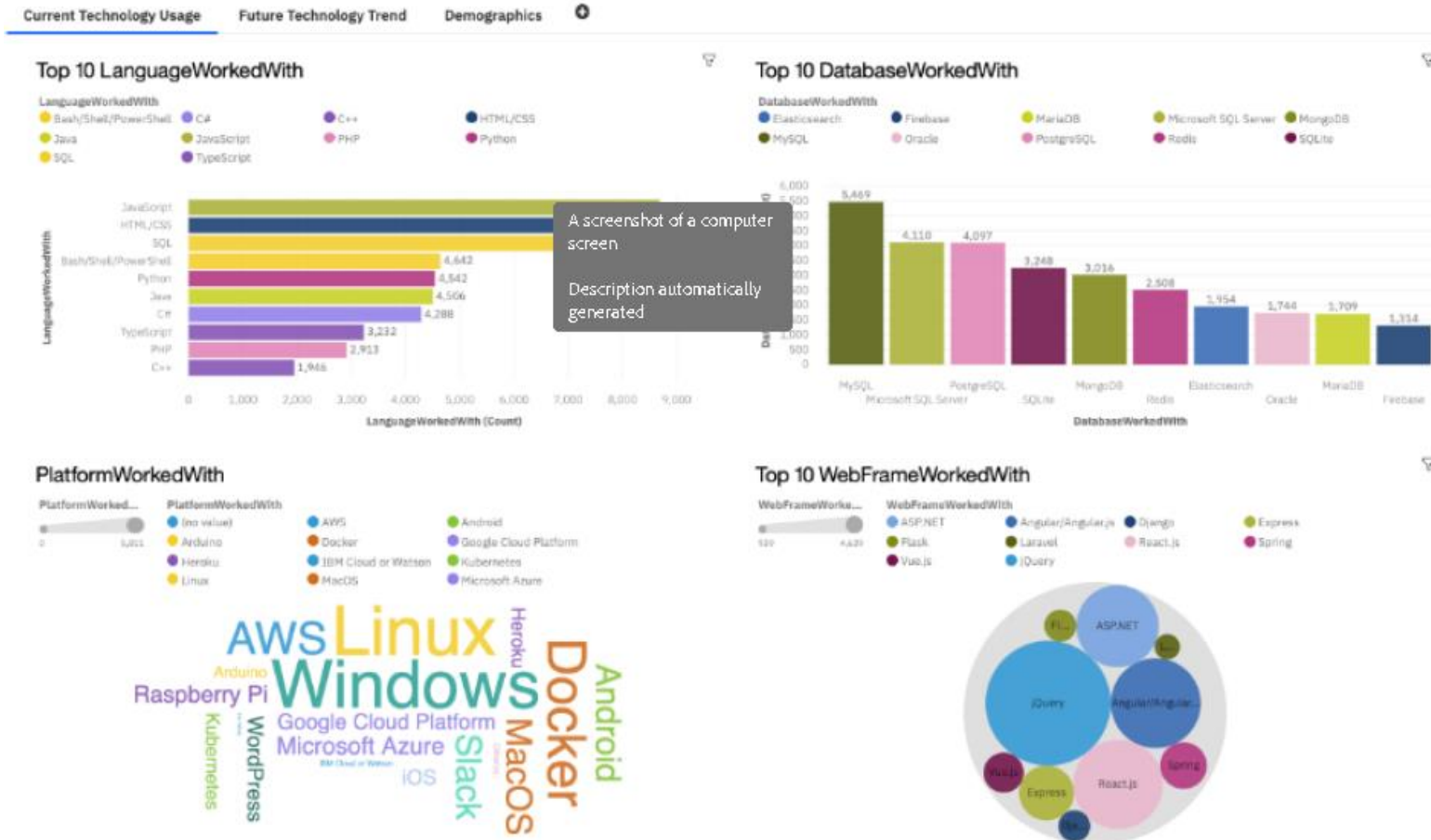- Increasing interest in PostgreSQL and MongoDB.

Implications

- Microsoft SQL Server and SQLite losing ground in the market.
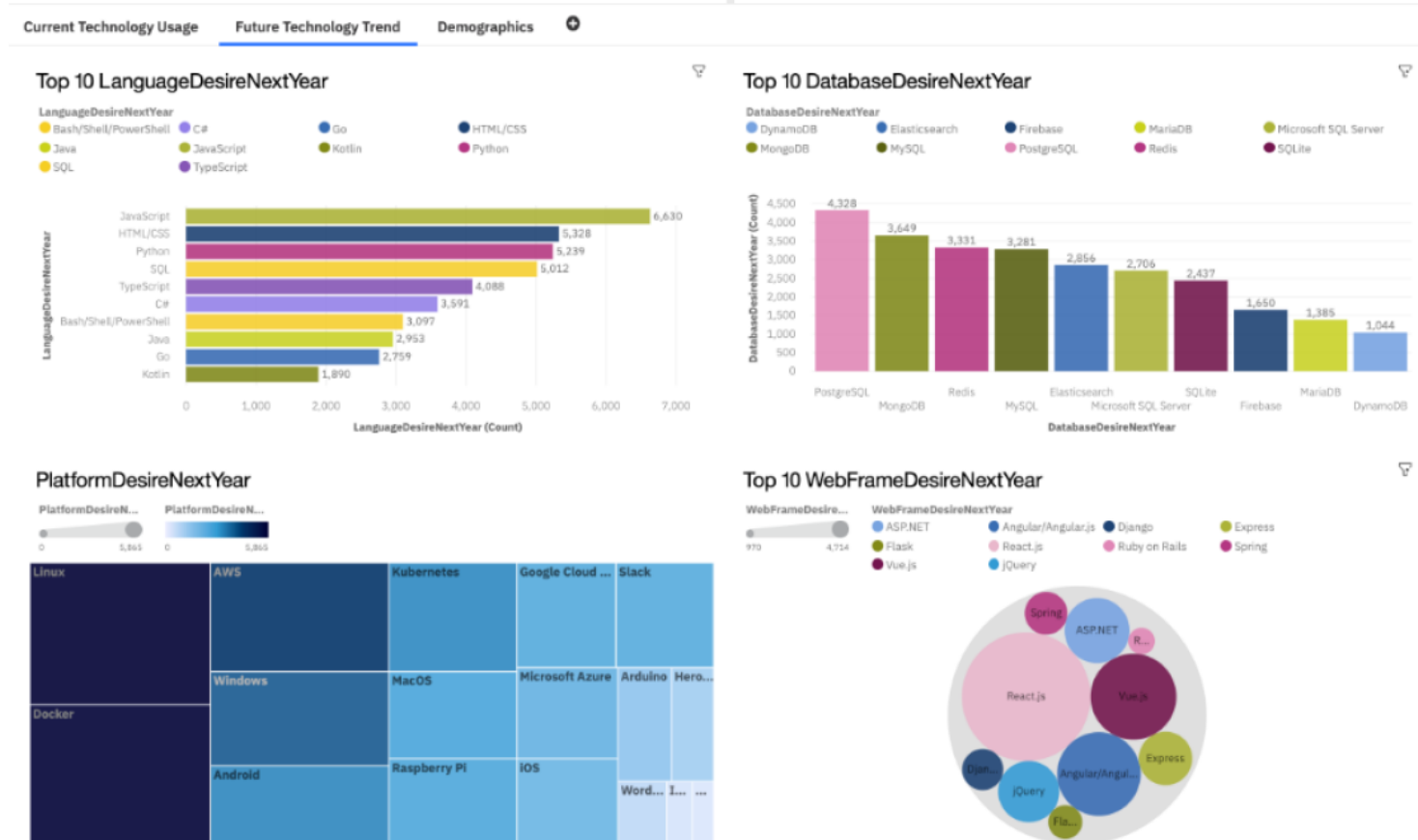- •PostgreSQL and MongoDB establishment in the market.

DASHBOARD

https://github.com/sonyParas1187/IBM-Data-Analyst-Capstone-Project/blob/main/TASK06-Dashboard-with-Cognos-Dashboard-Embedded-(CDE).pdf
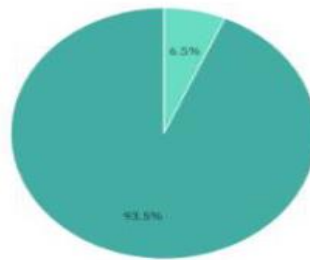
DASHBOARD TAB 1
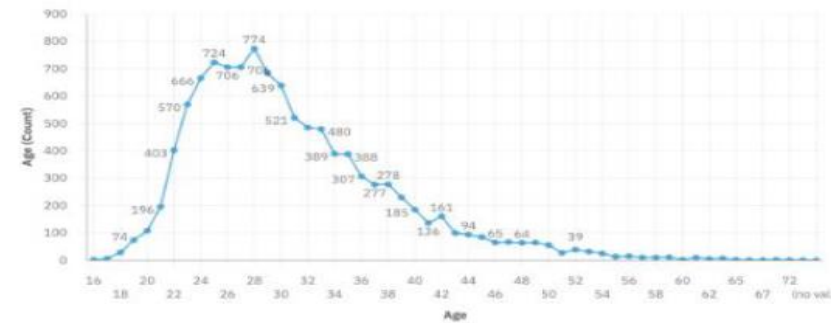
DASHBOARD TAB 2

DASHBOARD TAB 3
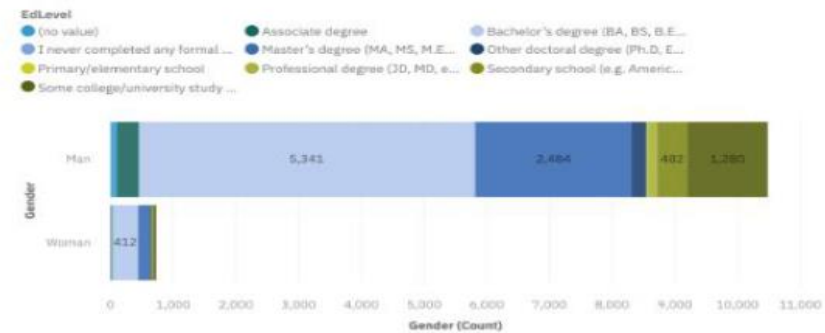
DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript widely used and TypeScript getting popular.

- Over 90% young male developers.

- Developers mostly located in developed countries.

Implications

- JavaScript and TypeScript web frames gaining followers.

- Global polarization of developer's location and gender.

- Young developers without postgrad studies on its majority.

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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.
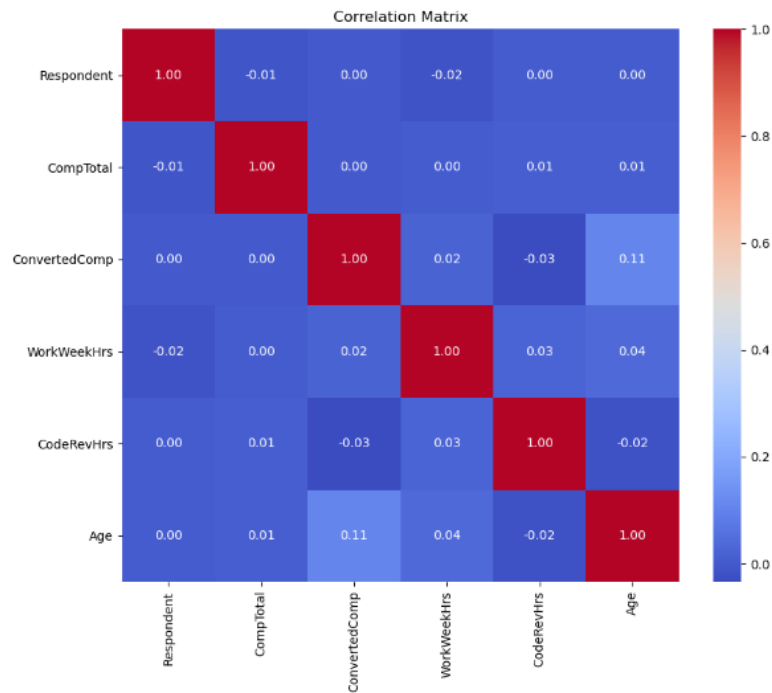
APPENDIX


```
In [28]:  import seaborn as sns

          # Finding correlation matrix
          corr = df.corr()

          # Plotting the heatmap
          plt.figure(figsize=(10, 8))
          sns.heatmap(corr, annot=True, cmap='coolwarm', fmt=".2f")
          plt.title("Correlation Matrix")
          plt.show()
```
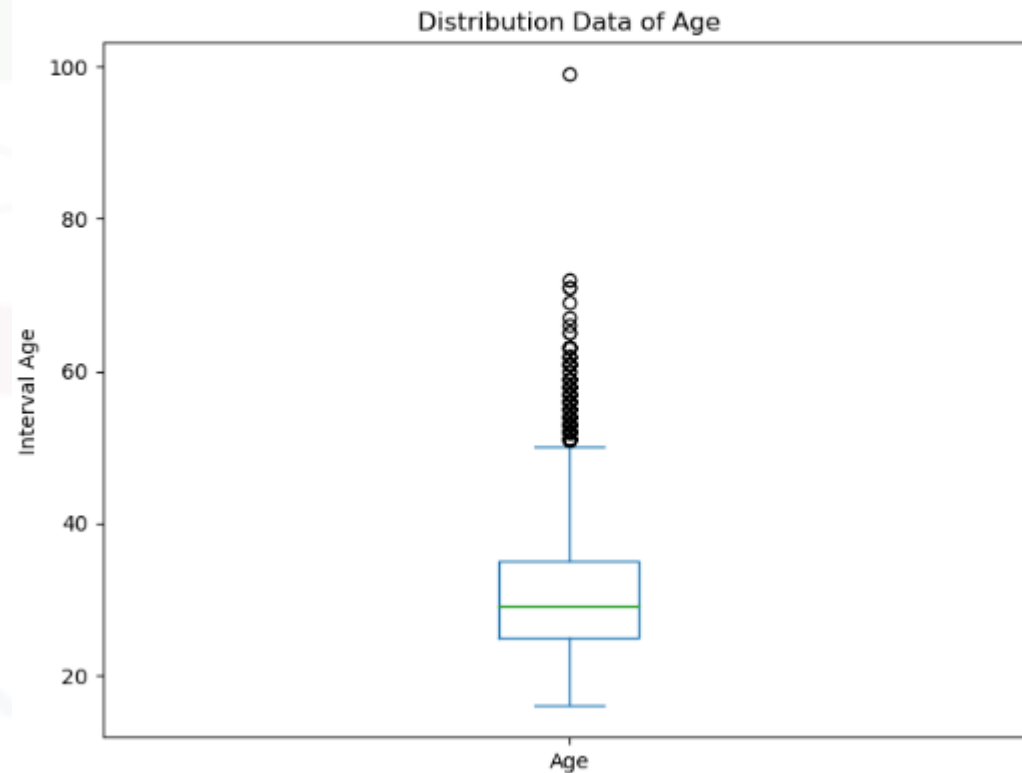


```
df['Age'].plot(kind='box', figsize=(8, 6))

plt.title('Distribution Data of Age')
plt.ylabel('Interval Age')

plt.show()
```
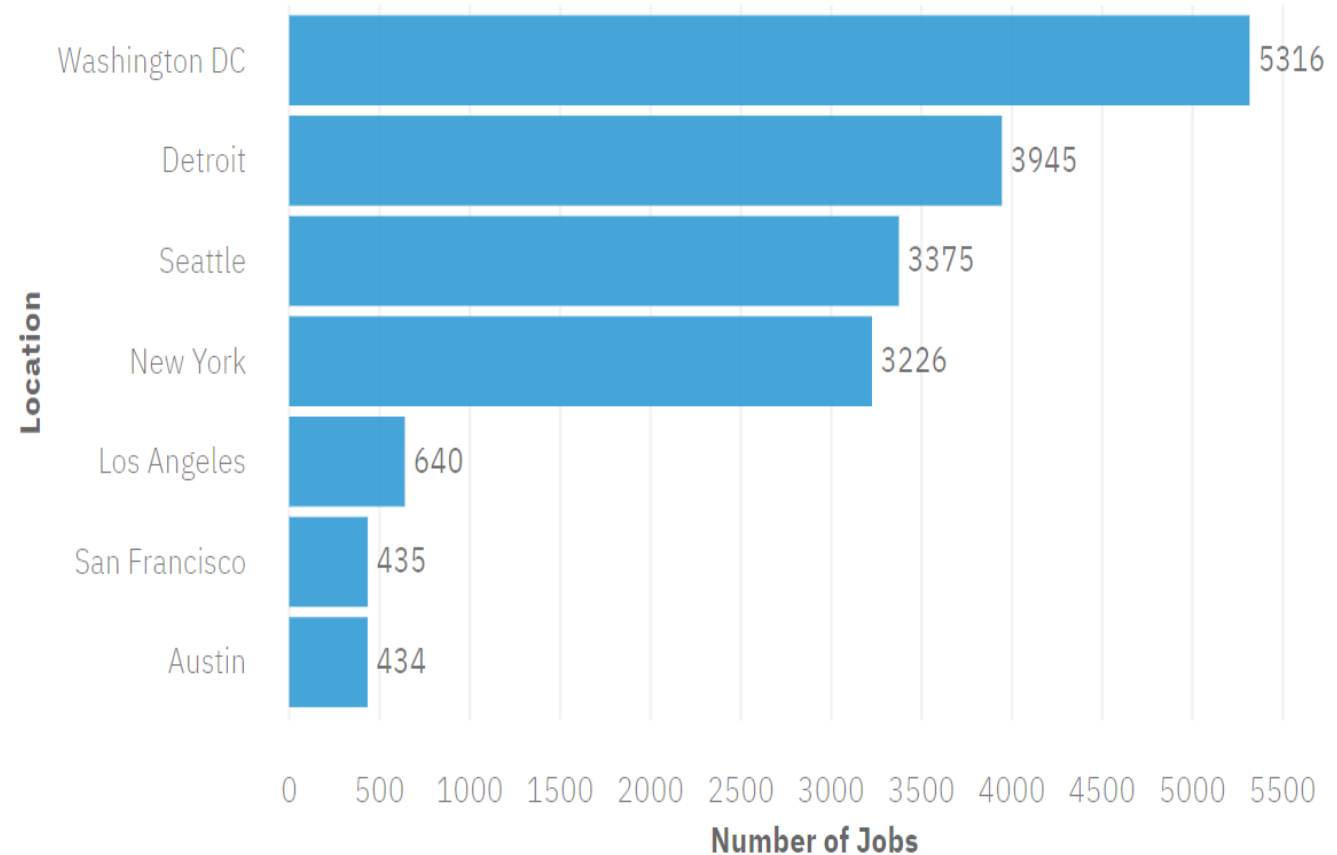

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JOB POSTINGS

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.

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