



# Stack Survey

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- Data Infoand analysis goal
- Methodology description
- Data gathering
- Data analysis
- Data visualizations
- Results shows through graphs and trends
- Discussion of overall findings
- Final conclusions of the carried out reserach

# INTRODUCTION

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- 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
- Characteristics of developers around the globe

# METHODOLOGY

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- Collect Survey data and explore its content
- web scrapping
- API
- Request library
- Data Wrangling
- Exploratory data analysis
- Analyzing data distribution
- Handling outliers
- Correlations
- Data Visualization
- Highlight distribution of data,relationships and comparison of data
- Dashboards

# RESULTS

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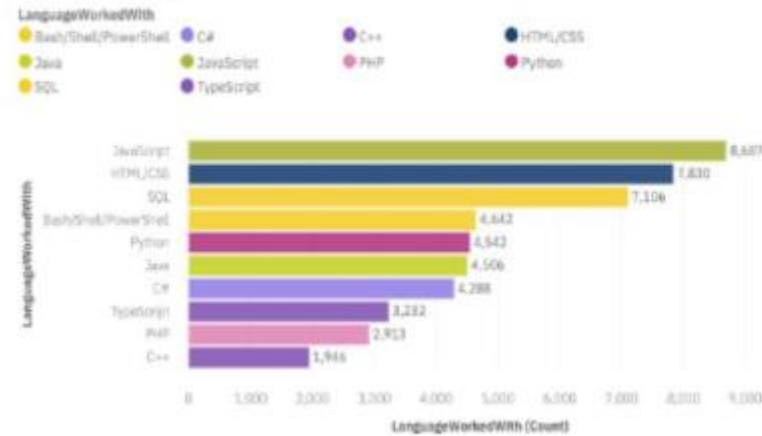
# PROGRAMMING LANGUAGE TRENDS

Current year

Next Year

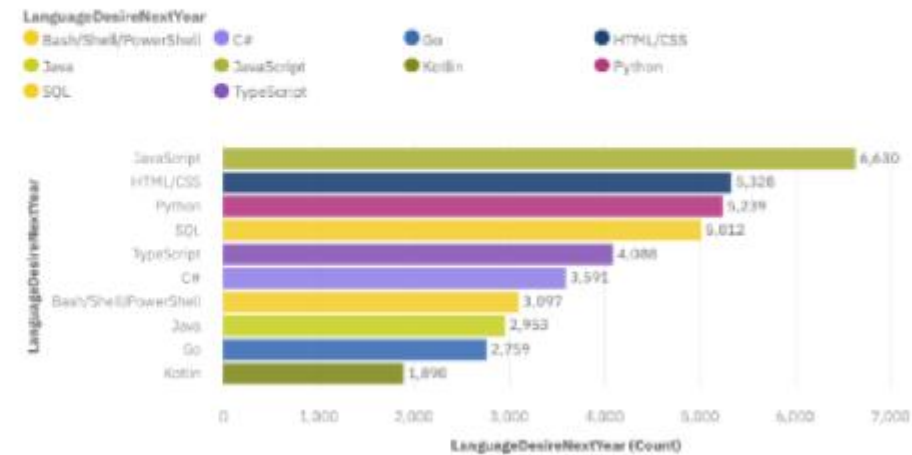
Current Year

Top 10 LanguageWorkedWith



Next Year

Top 10 LanguageDesireNextYear



# PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- JavaScript seems to keep as leading language
- Python fastest growing
- Great interest in TypeScript

## Implications

- Possible developers migration from JavaScript to TypeScript



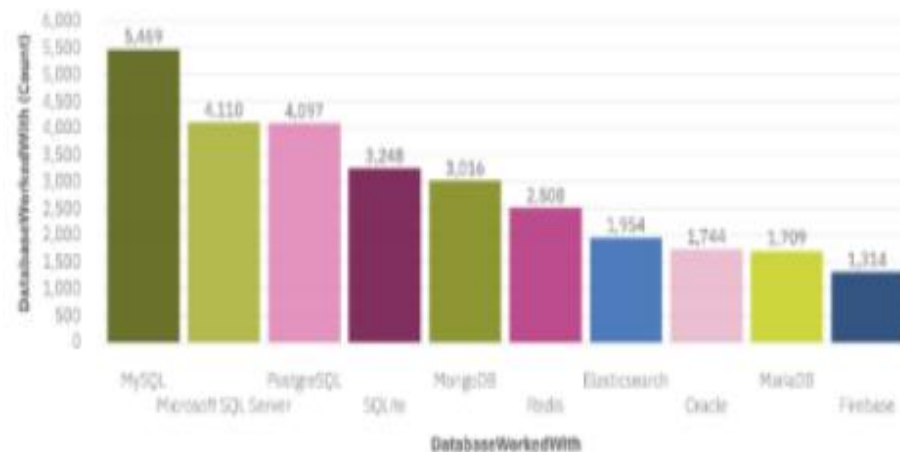
# DATABASE TRENDS

## Current Year

Top 10 DatabaseWorkedWith

DatabaseWorkedWith

DatabaseWorkedWith  
Elasticsearch, Firebase, MariaDB, Microsoft SQL Server, MongoDB, MySQL, Oracle, PostgreSQL, Redis, SQLite

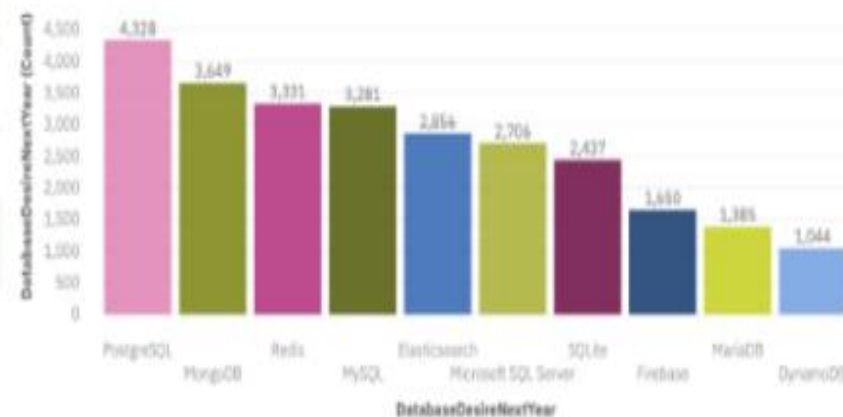


## Next Year

Top 10 DatabaseDesireNextYear

DatabaseDesireNextYear

DatabaseDesireNextYear  
DynamoDB, Elasticsearch, Firebase, MariaDB, Microsoft SQL Server, MongoDB, MySQL, PostgreSQL, Redis, SQLite



# DATABASE TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- MySQL as most used database
- Lack of interest in Microsoft SQL Server and Sqlite
- Increasing interest in postgresSQL and MongoDB

## Implications

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

# DASHBOARD

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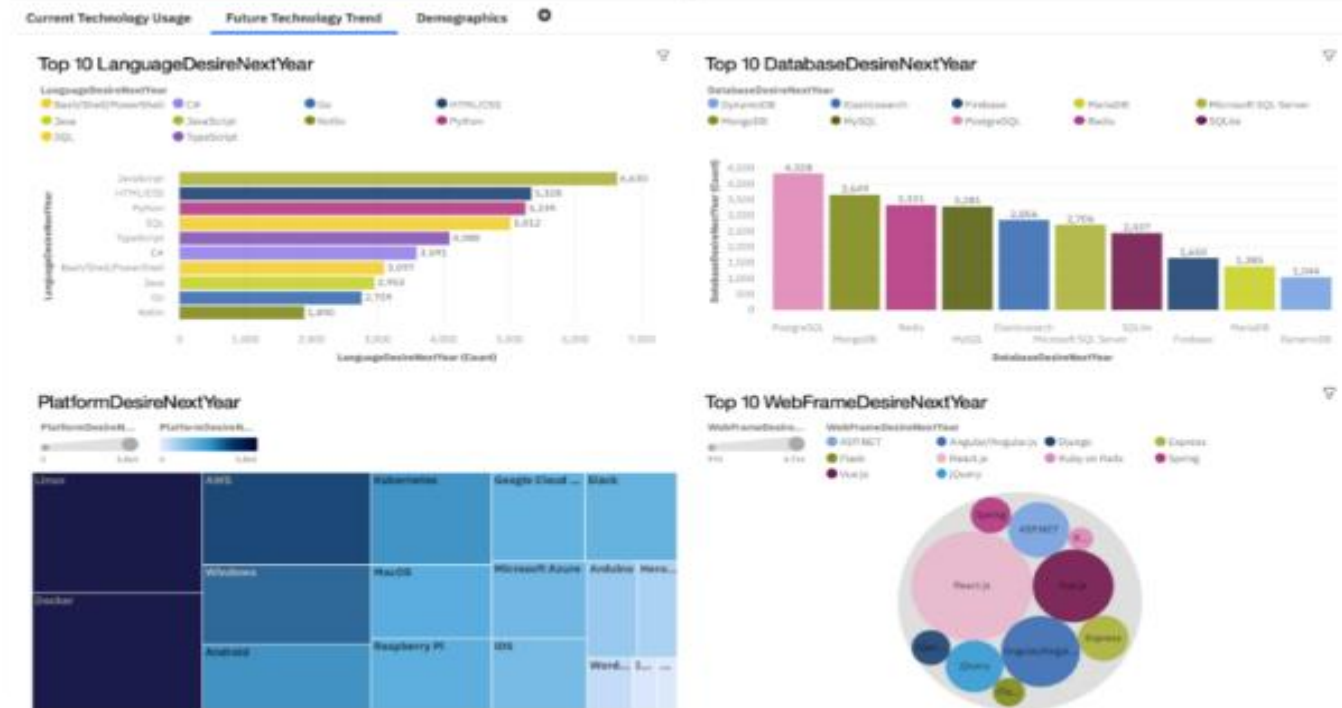


The <https://github.com/NeetuBawa/TASK06-Dashboard-with-Cognos-Dashboard-Embedded--CDE-.pdf> GitHub link of the Cognos dashboard goes here.

# DASHBOARD TAB 1



# DASHBOARD TAB 2



# DASHBOARD TAB 3

## Demographics

Current Technology Usage Future Technology Trend **Demographics**

Respondent classified by Gender

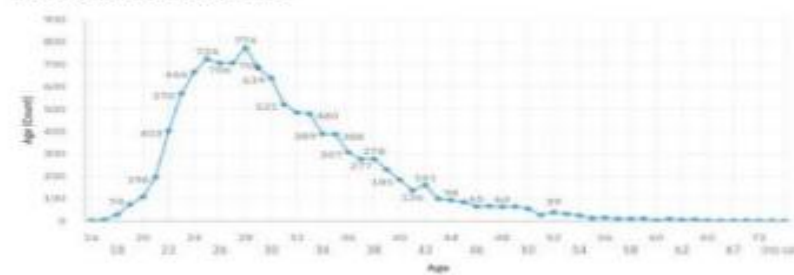
Gender  
Male Female



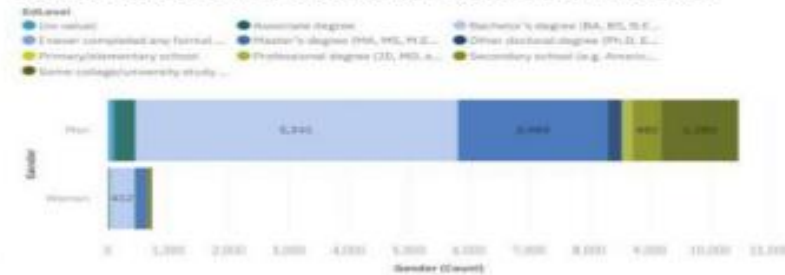
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



# DISCUSSION

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# OVERALL FINDINGS & IMPLICATIONS

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## 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.



# CONCLUSION

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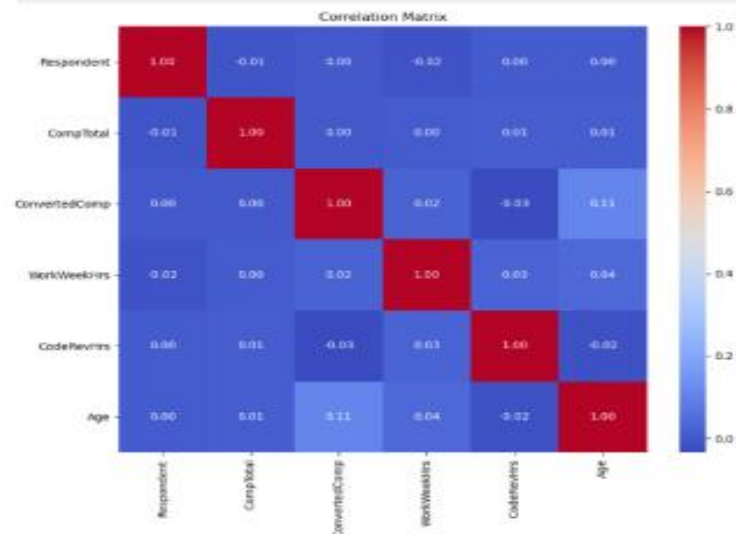


- Developers are people with very marked characteristics
- A good idea of popularity trends of different tools, platforms and languages can be obtained
- There is a job to be done to spread accessibility of this labor market to countries in development

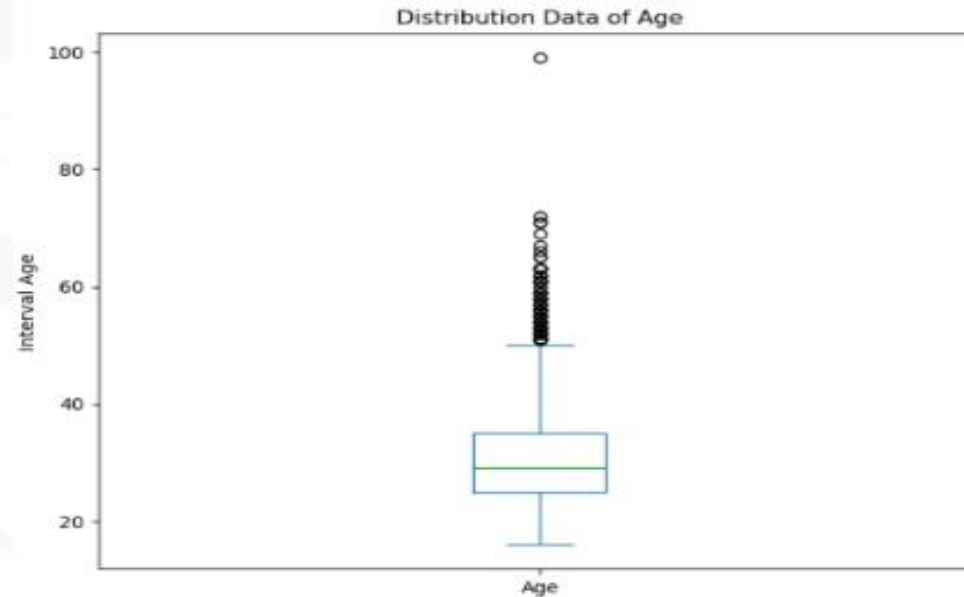
# APPENDIX

```
In [24]: import seaborn as sns
# displaying correlation matrix
corr = df.corr()

# plotting the heatmap
plt.figure(figsize=(30, 30))
sns.heatmap(corr, annot=True, cmap='coolwarm', ytick_labels='df')
plt.title('Correlation matrix')
plt.show()
```

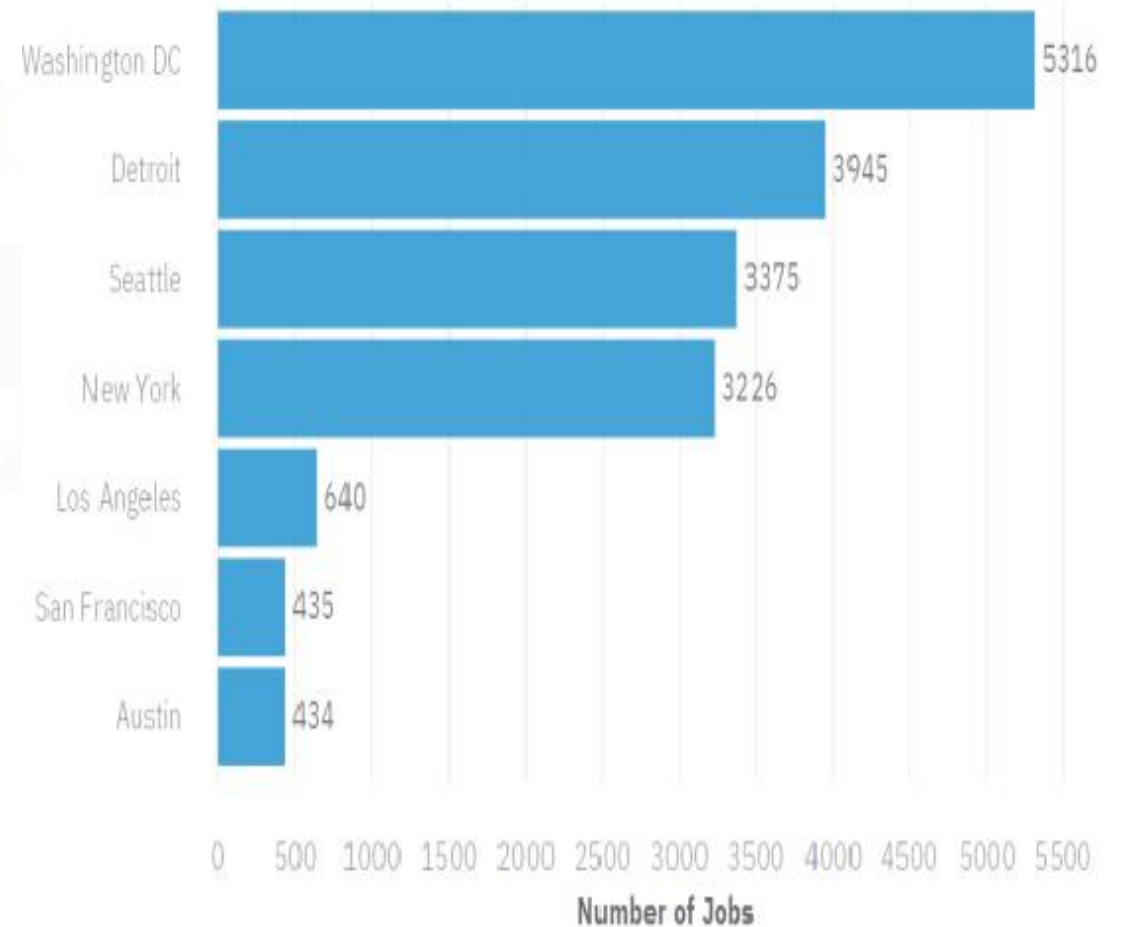


```
df['Age'].plot(kind='box', figsize=(8, 6))
plt.title('Distribution Data of Age')
plt.ylabel('Interval Age')
plt.show()
```



# 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.

