STACK OVERFLOW DEVELOPER SURVEY 2019

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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 presentations 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
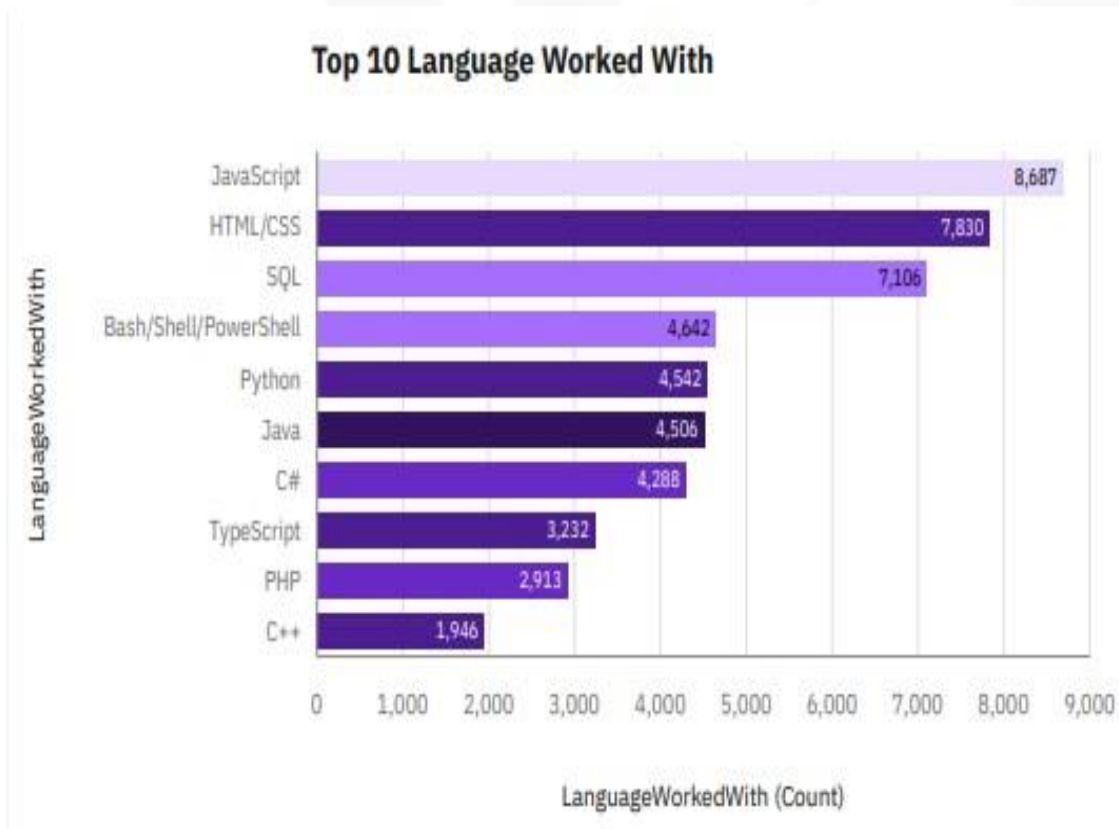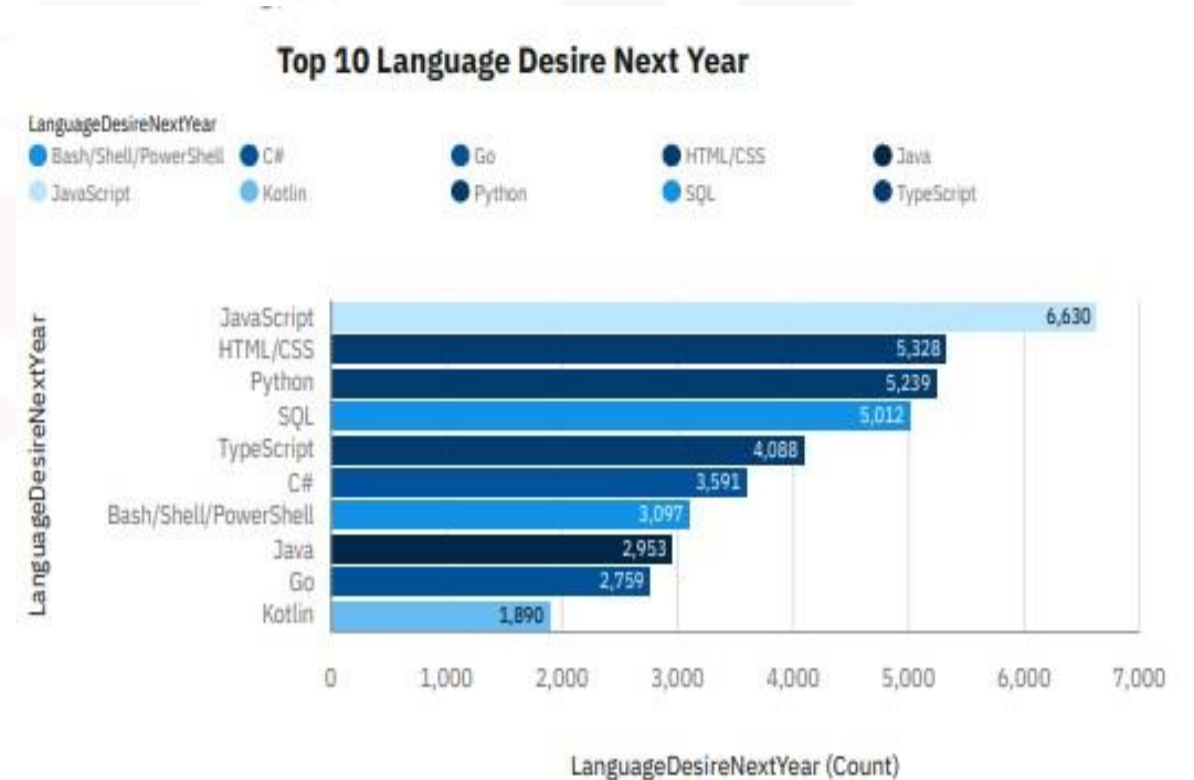
- Dashboard

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RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

Top 10 Language Worked With

LanguageWorkedWith

Language	Count
JavaScript	8,687
HTML/CSS	7,830
SQL	7,106
Bash/Shell/PowerShell	4,642
Python	4,542
Java	4,506
C#	4,288
TypeScript	3,232
PHP	2,913
C++	1,946

LanguageWorkedWith (Count)

Top 10 Language Desire Next Year

LanguageDesireNextYear

Bash/Shell/PowerShell · C# · Go · HTML/CSS · Java · JavaScript · Kotlin · Python · SQL · TypeScript

Language	Count
JavaScript	6,630
HTML/CSS	5,328
Python	5,239
SQL	5,012
TypeScript	4,088
C#	3,591
Bash/Shell/PowerShell	3,097
Java	2,953
Go	2,759
Kotlin	1,890

LanguageDesireNextYear (Count)

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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript seems to keep as leading language .

- Python fastest-growing language.

- Great interest in TypeScript

Implications

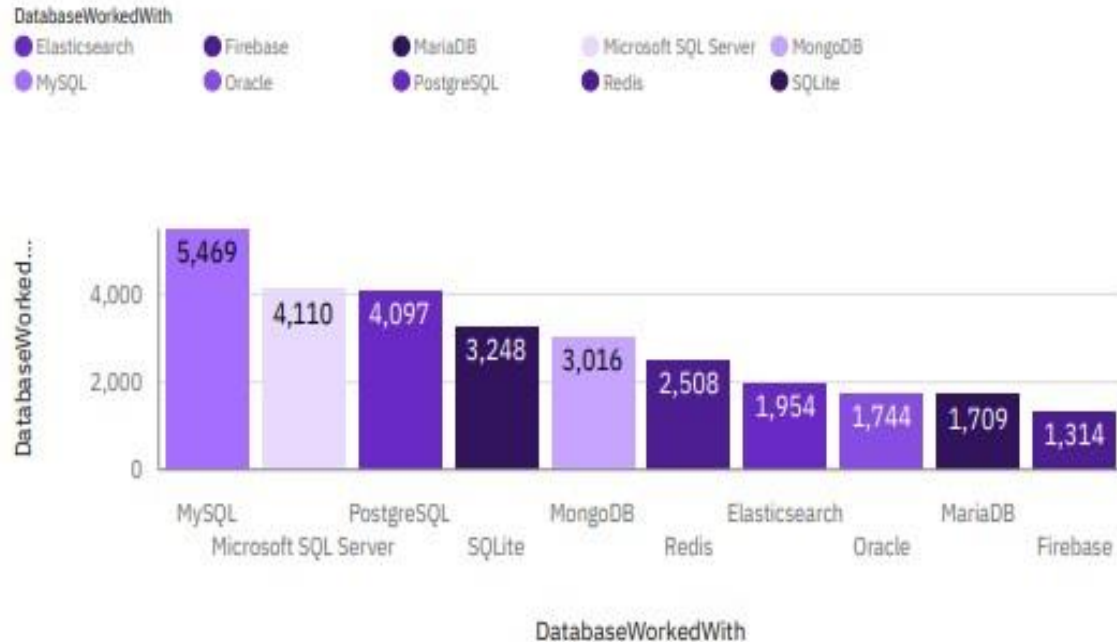- Possible developers' migration from JavaScript to TypeScript.

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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.
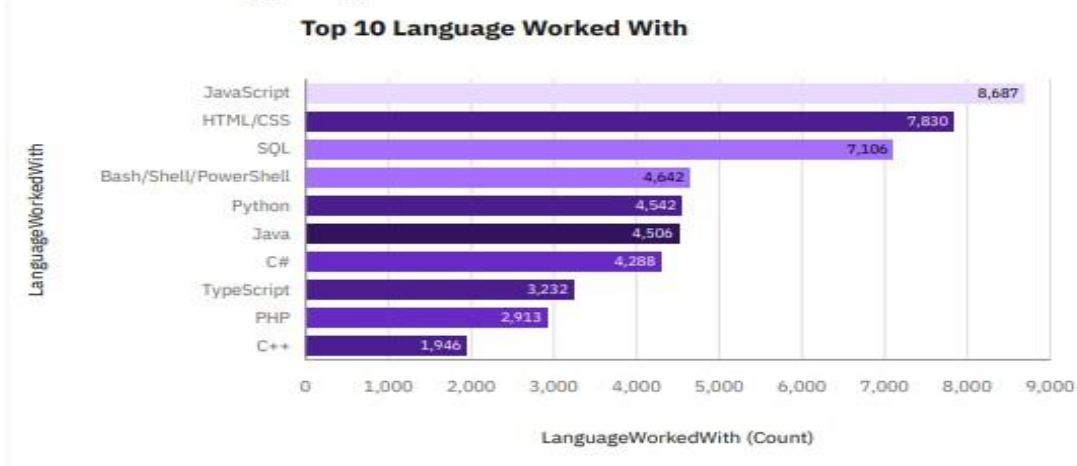- PostgreSQL and MongoDB establishment in the market
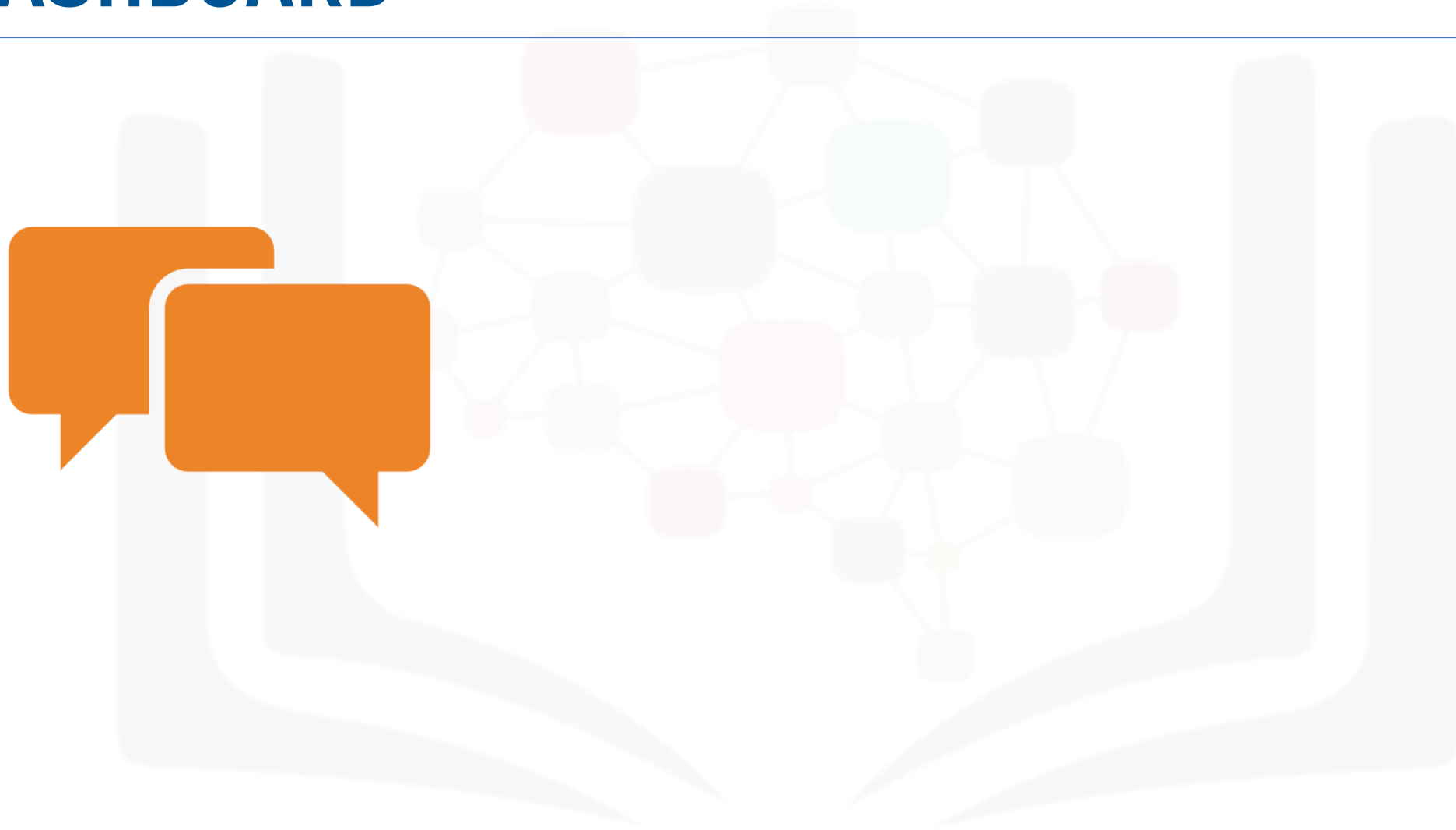
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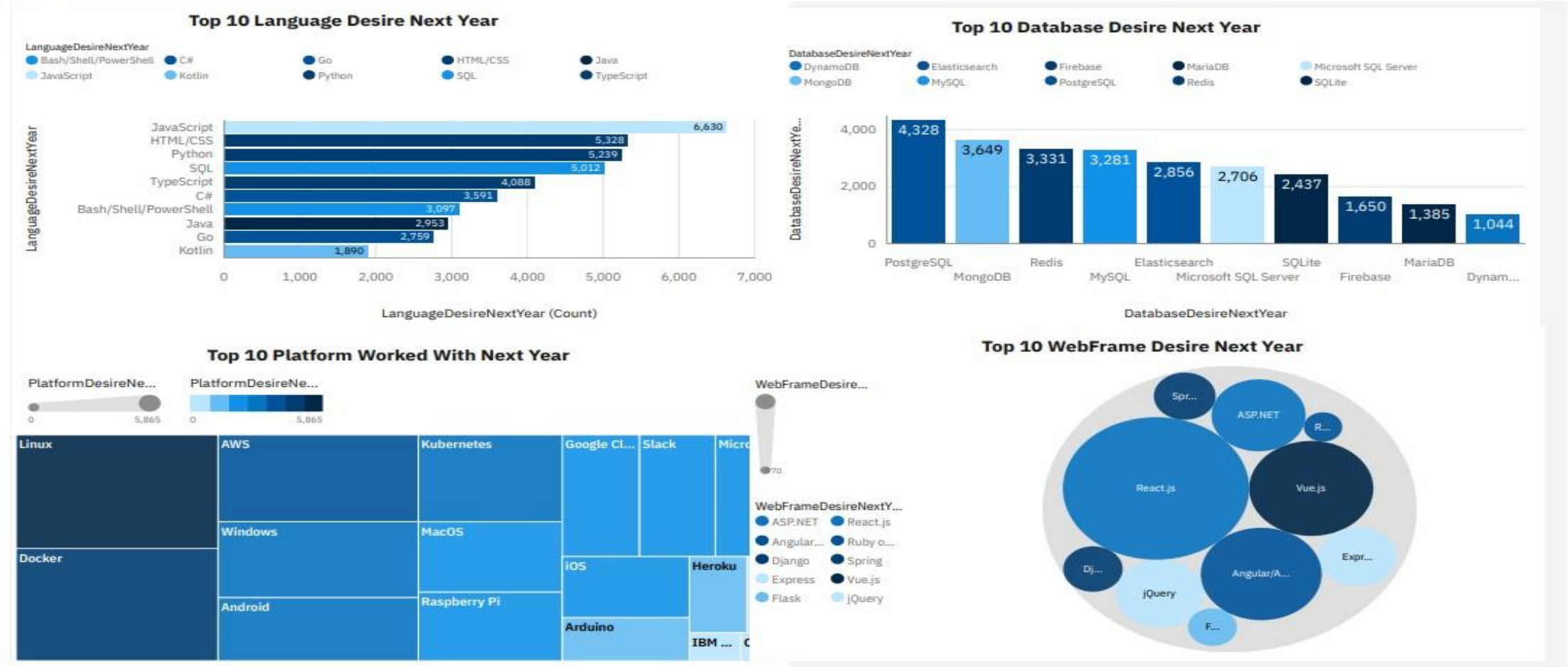
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DASHBOARD

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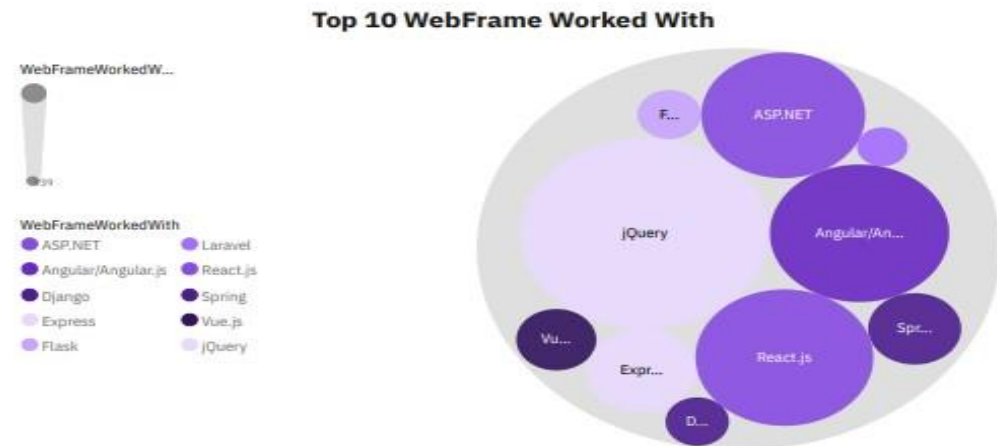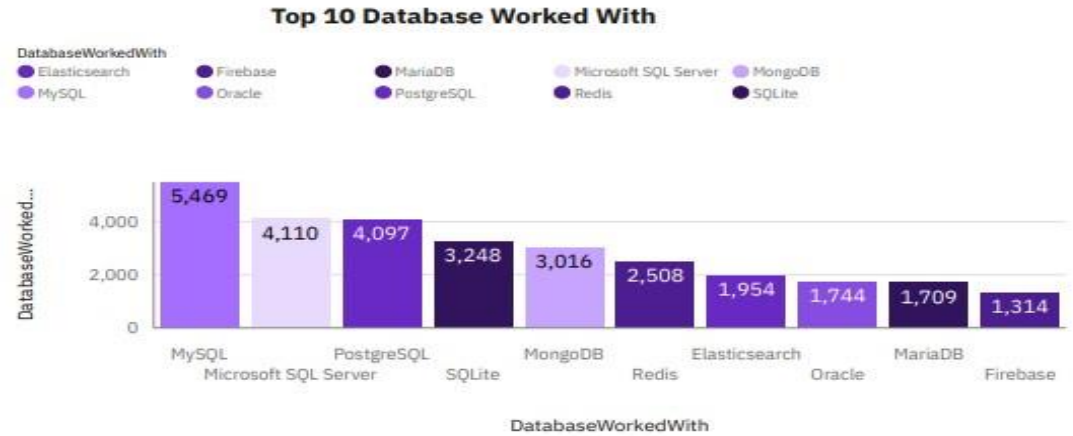
DASHBOARD TAB 2

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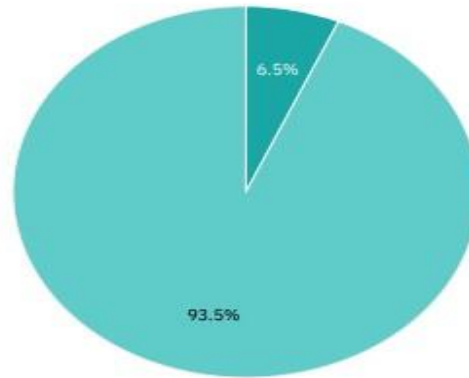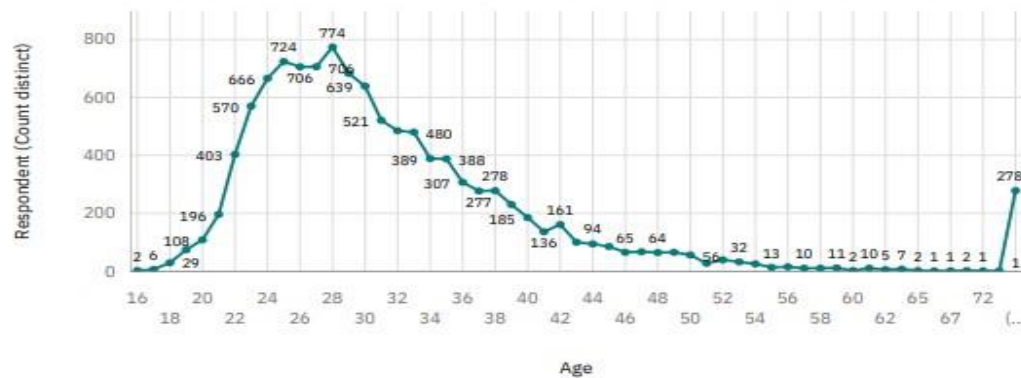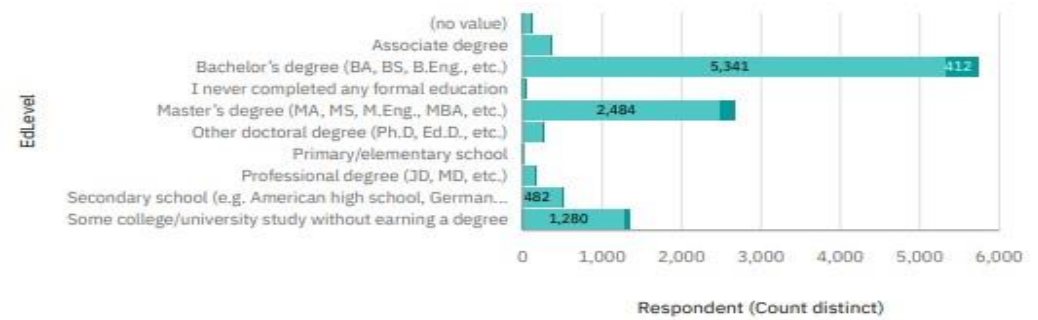
DISCUSSION

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 language can be obtained

- There is a job to be done to spread accessibility of this labor market to countries in development