Capstone Project

Stack Overflow Developer Survey -2019

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June 2022

OUTLINE

- **Executive Summary**

- **Introduction**

- **Methodology**

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  - **Dashboard**

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- **Conclusion**

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EXECUTIVE SUMMARY

- **Current Technology Usage**
  - Top 10 Languages Worked with
  - Top 10 Database Worked with
  - Platform worked with Word-Cloud
  - Top 10 Web-frame Worked with

- **Future Technology Trend**
  - Top 10 Languages Desired Next Year
  - Top 10 Database Desired Next Year
  - Platform worked with Desired Next Year
  - Top 10 Web-frame Desired Next Year

- **Demographics**
  - Respondents Classified by Gender
  - Respondent Count for Countries
  - Respondent Count by Age
  - Respondent Count by Gender by Formal Education Level

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INTRODUCTION

- The top 10 Programming Languages in demand

- The top 10 database skills in demand.

- The top Platformed utilization.

- The top 10 Web-frame platform in demand

METHODOLOGY

- Collecting Data- Stack Overflow Developer Survey - 2019
  - Using – API.
  - Using – Web-scrapping.

- Exploring Data
  - Finding Duplicates & Removing Duplicates.
  - Finding & Imputing Missing Value.
  - Normalizing Data.
  - Handling Outliers.
  - Correlation

- Visualization Data
  - Visualization Distribution, Relation, Composition & Comparison of data.
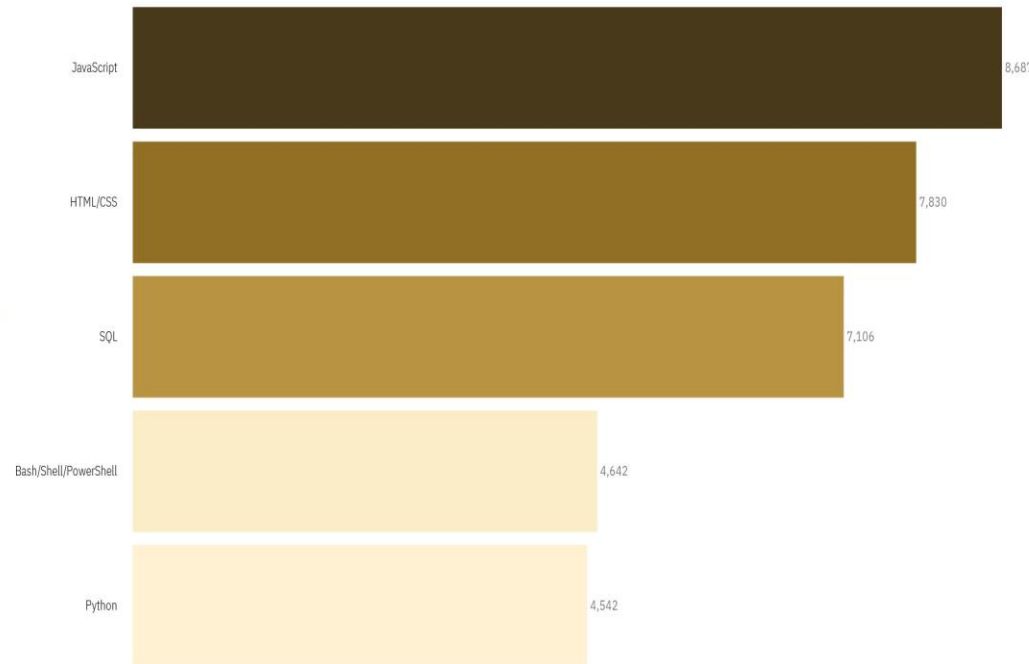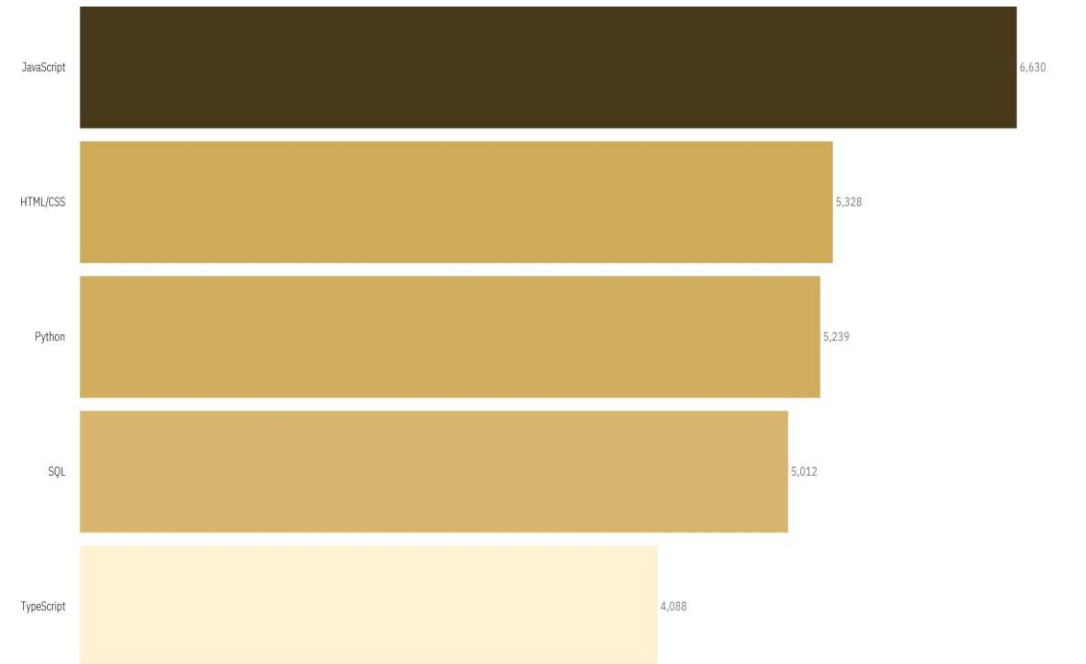 - Building Dashboard.

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RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Java-script appears to be popular choice for current as well future years.

- Web Assembly comes as least popular for current years and VBA appears least choice for next year.

- Python and SQL appears to be evergreen mid popular choice for current and next year respectively.
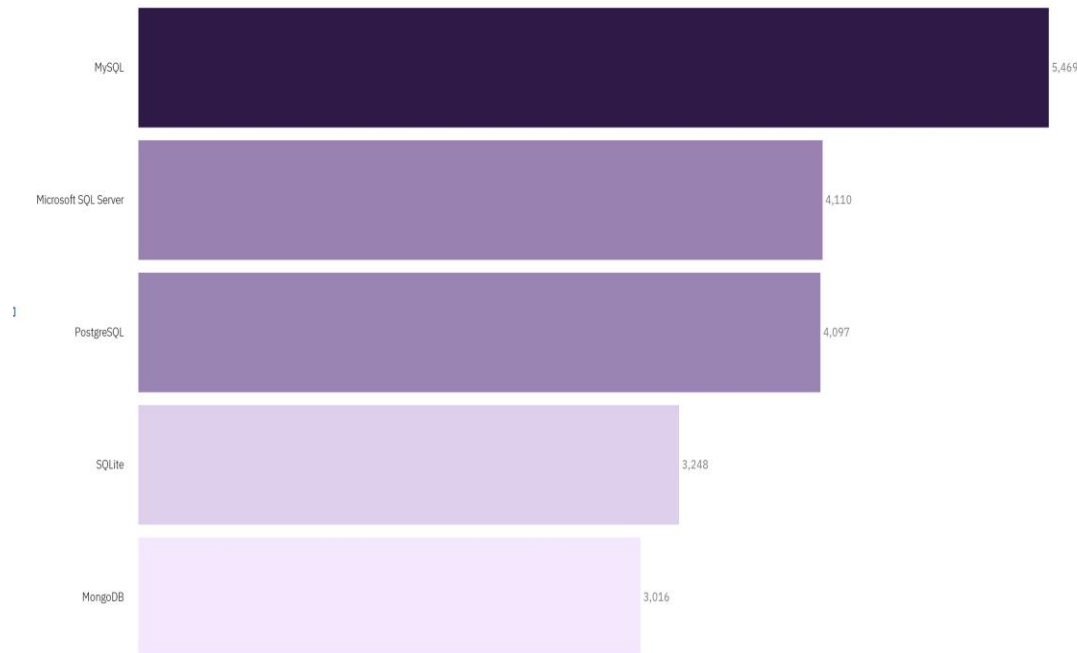
Implications

- Java-script is becoming the new upcoming popular demanding programming language among users.

- Web Assembly and VBA has been replaced by other programming languages at most places.

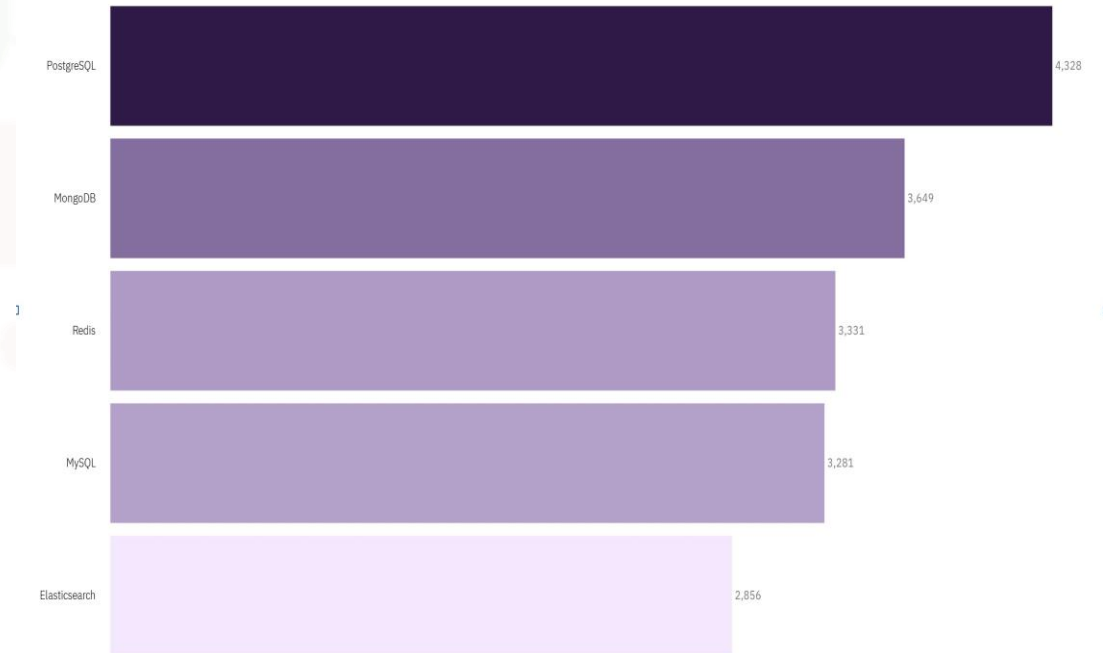- Python and SQL appears to be evergreen demand Programming languages.

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DATABASE TRENDS

Current Year

Next Year

Top 5 Databases

MySQL	5,469
Microsoft SQL Server	4,110
PostgreSQL	4,097
SQLite	3,248
MongoDB	3,016

Top 5 Databases

PostgreSQL	4,328
MongoDB	3,649
Redis	3,331
MySQL	3,281
Elasticsearch	2,856

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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL comes out to be popular choice for current whereas PostgreSQL overcomes every other in case of desired next year choice.
- Couchbase comes as least popular for current years as well as for next year as well.
- Elasticsearch, Redis & MongoDB comes out to show progressive trends in upcoming years whereas MySQL shows declining trend as compared to current-next years charts.
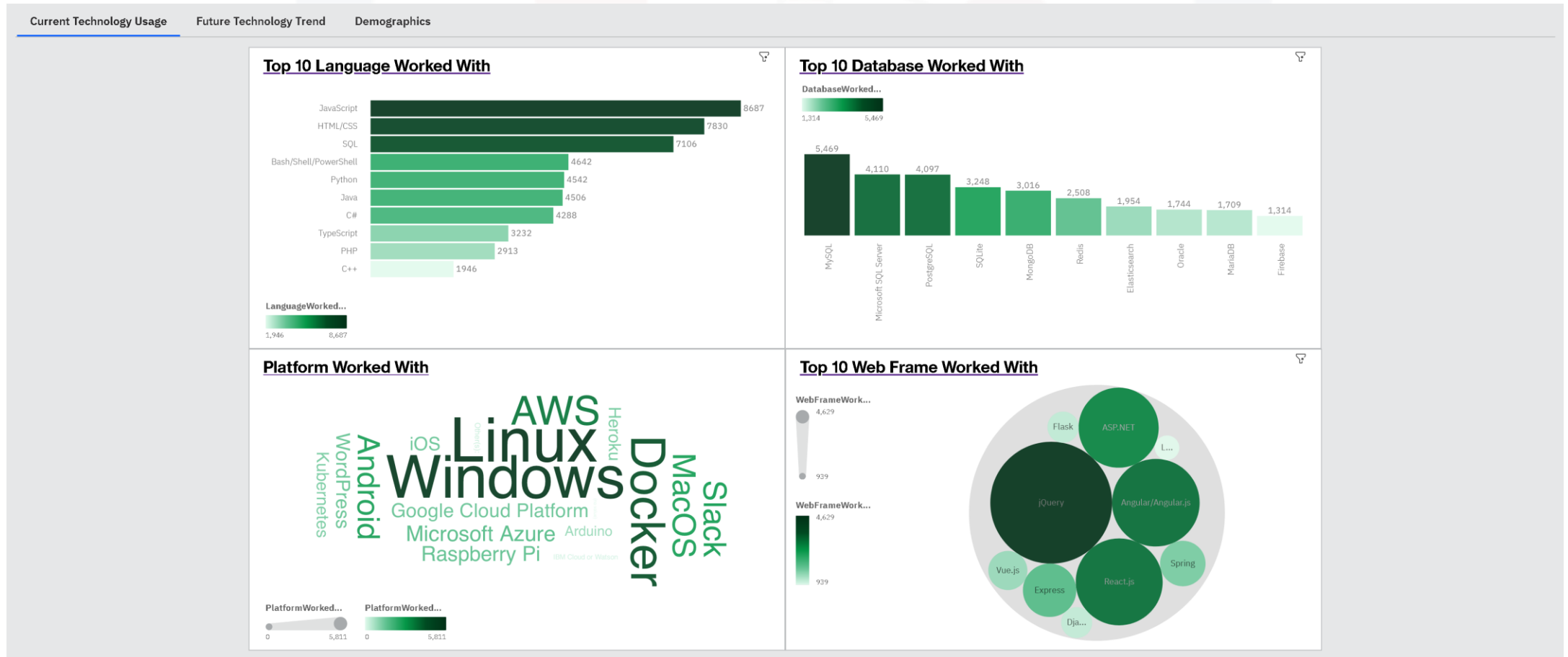
Implications

- PostgreSQL is becoming the new upcoming popular desired database skills among users replacing MySQL.
- Couchbase has been replaced by other programming languages at most places.
- Elasticsearch, Redis & MongoDB appears to be more popular desired choice as compared to MySQL.
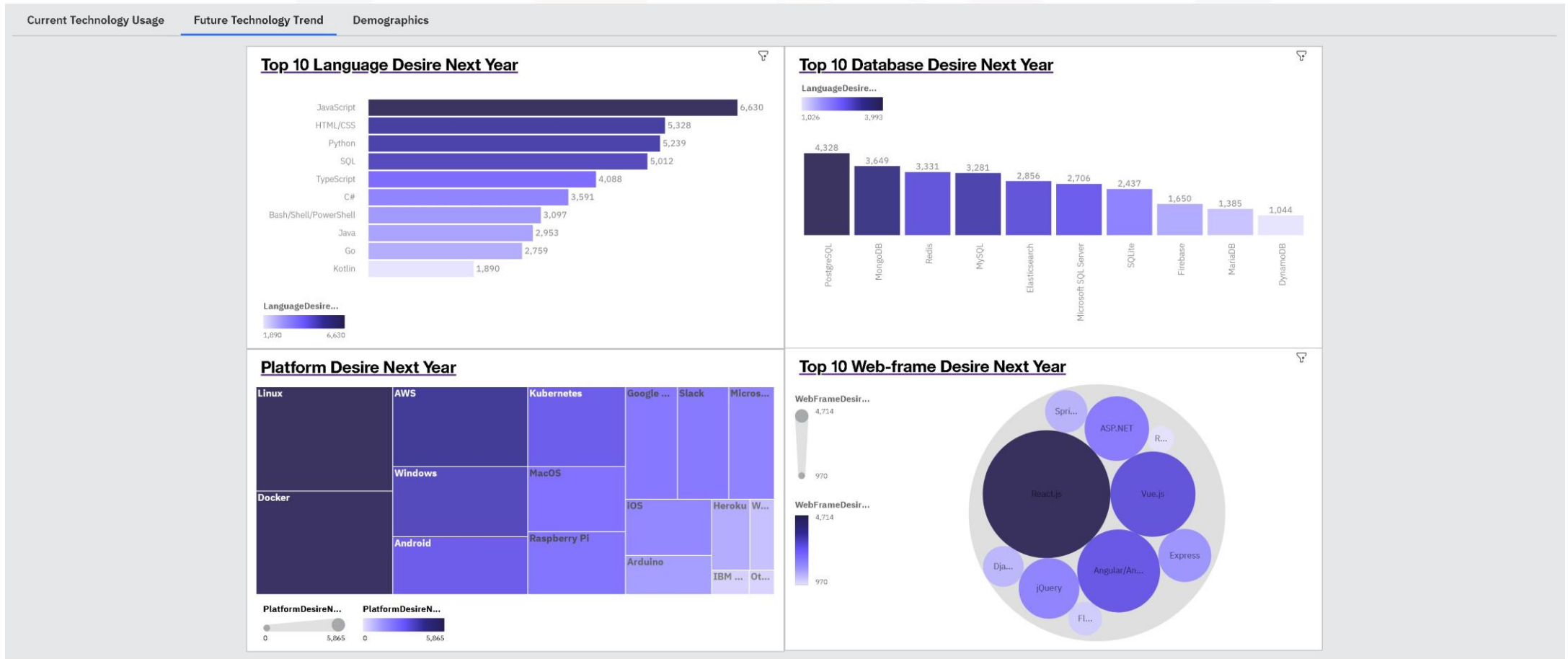
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DASHBOARD

The permanent link of the read-only view of the Cognos dashboard:

https://eu-gb.dataplatform.cloud.ibm.com/dashboards/630d47d2-8c35-4af6-b53a-a215684855d5/view/6231dd3761ea6ad16ffdbde407912e032f637159e7bbd20789d47b495a317597a8601292c82d1e5adb400537f1e5465dc8
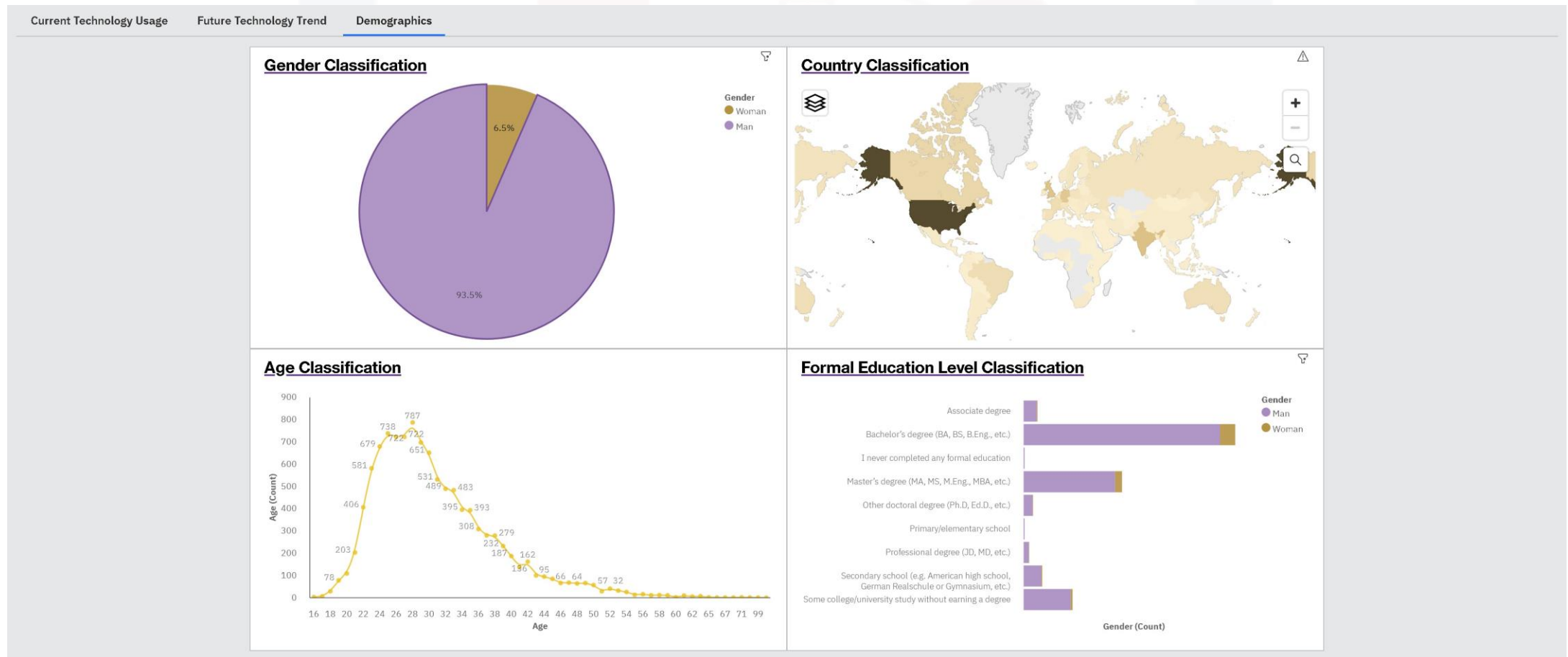
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DASHBOARD TAB 1

DASHBOARD TAB 2

DASHBOARD TAB 3

DISCUSSION

- All age used for survey

- All gender considered for survey.

- People from different countries were asked for survey.

- Various education level people were included as well

OVERALL FINDINGS & IMPLICATIONS

Findings

- The upcoming programming trend is for advanced programming languages.

- The upcoming trend for databases is non-relational databases mostly.

Implications

- People are looking for advanced programming languages with easy learning in focus.

- People are looking for big data because it seem to have great future.

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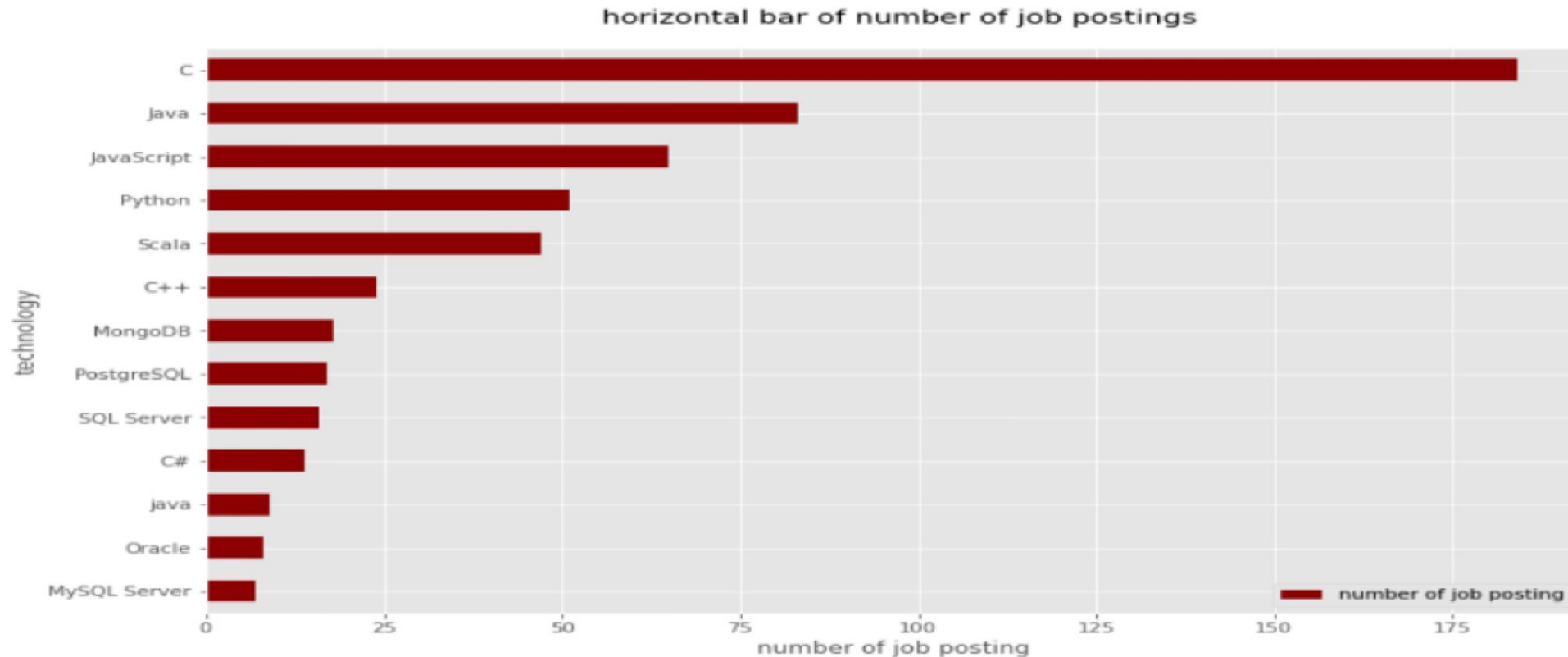
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CONCLUSION

- The top programming language in demand Present & Future- Java-script.

- The top database skills in demand Present – MySQL ; Future – PostgreSQL.

- Popular Platform Present – Windows ; Future – Linux Docker

- The top Web-frame in Demand Present – jQuery ; Future – React.js

APPENDIX

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

JOB POSTINGS

horizontal bar of number of job postings

POPULAR LANGUAGES

Average Annual Salary of popular languages