Technology of Future

Venkata Sai Abhiram Addepalli

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SKILLS NETWORK

OUTLINE

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

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EXECUTIVE SUMMARY

- Gathering job demand data across different technologies and locations.

- Analyzing the data to uncover insights and trends. Identifying the most in-demand programming languages.
  - Determining the top database skills sought by employers
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  - Recognizing the popular Integrated Development Environments (IDEs).

- Presenting the information through a dashboard displaying current skills, future skill trends, and demographic data.

INTRODUCTION

- To stay updated with evolving technologies, it's crucial for IT professionals and consultants to excel in programming.

- The purpose of the problems
    - Identify the skill requirement
    - Identifying the programming/database skills for present
    - Identifying the programming/database skills for future

- Data was gathered from a Stack overflow survey, IBM site and GitHub postings. It was collected, cleaned, subjected to exploratory analysis, and visualized on dashboard.

METHODOLOGY

- Data Collection

- Data Scrapping

- Data Wrangling

- Exploring Data Analysis

- Data Visualization

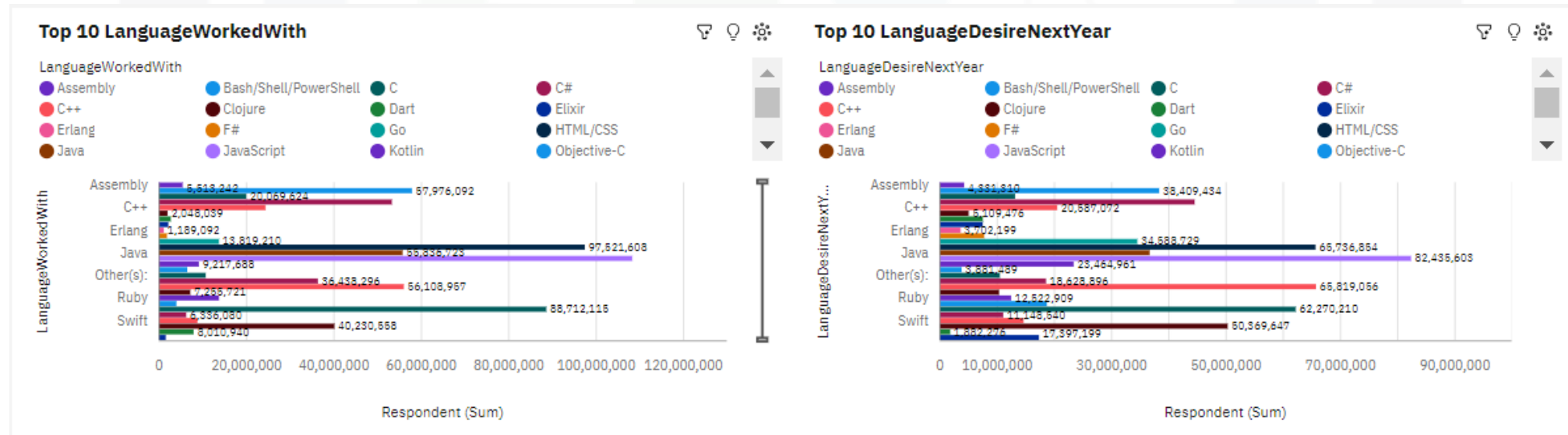- Dashboard Creation

- Presenting the Findings

RESULTS

- The gathered data undergoes a cleaning process before statistical techniques are applied for analysis. Once completed, the information is used to create dashboards illustrating current and future trends. \

- The following are the findings and visual representations of the results, accompanied by explanations.

PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most highest number of people working with, following by HTML/CSS for both

- The third is replaced by Python

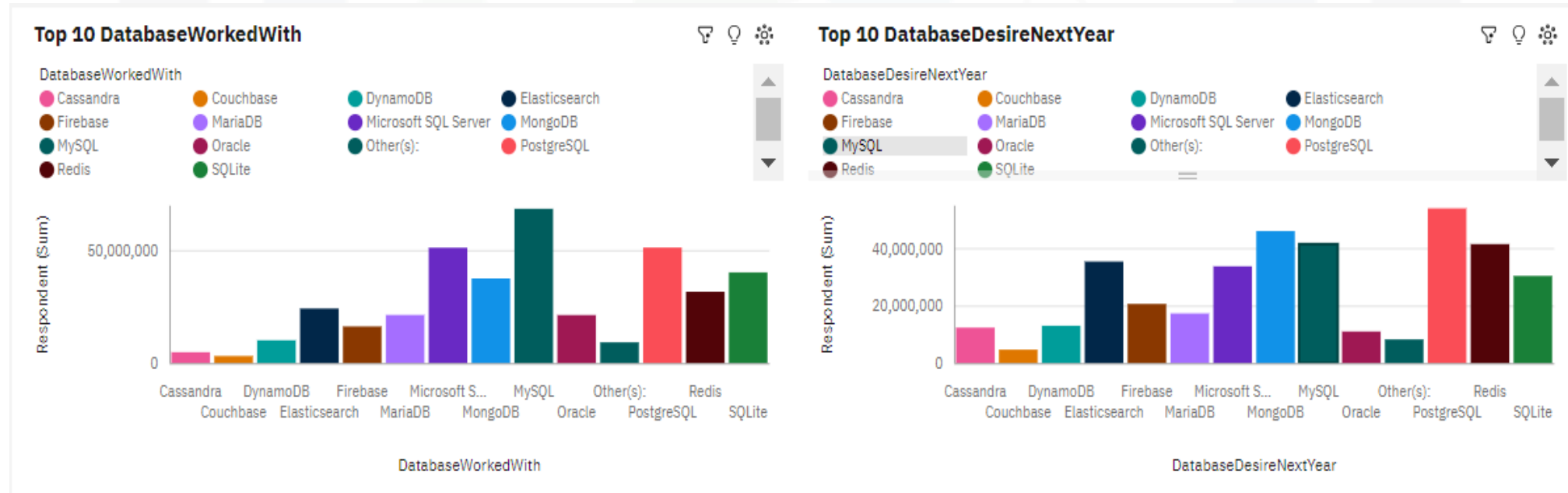- TypeScript is expected to be in the 5th place, while the Bash/Shell/PowerShell is out

Implications

- JavaScript and HTML/CSS will be still in the trends

- People are more interested in Python

- SQL will be still preferable

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DATABASE TRENDS

Current Year

Next Year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- In next year, PostgreSQL is presented to be the 1st place instead MySQL

- MongoDB is changed from 5th to 2nd place

- Microsoft SQL Server and SQLite is estimated to be replaced by Radish and Elasticsearch
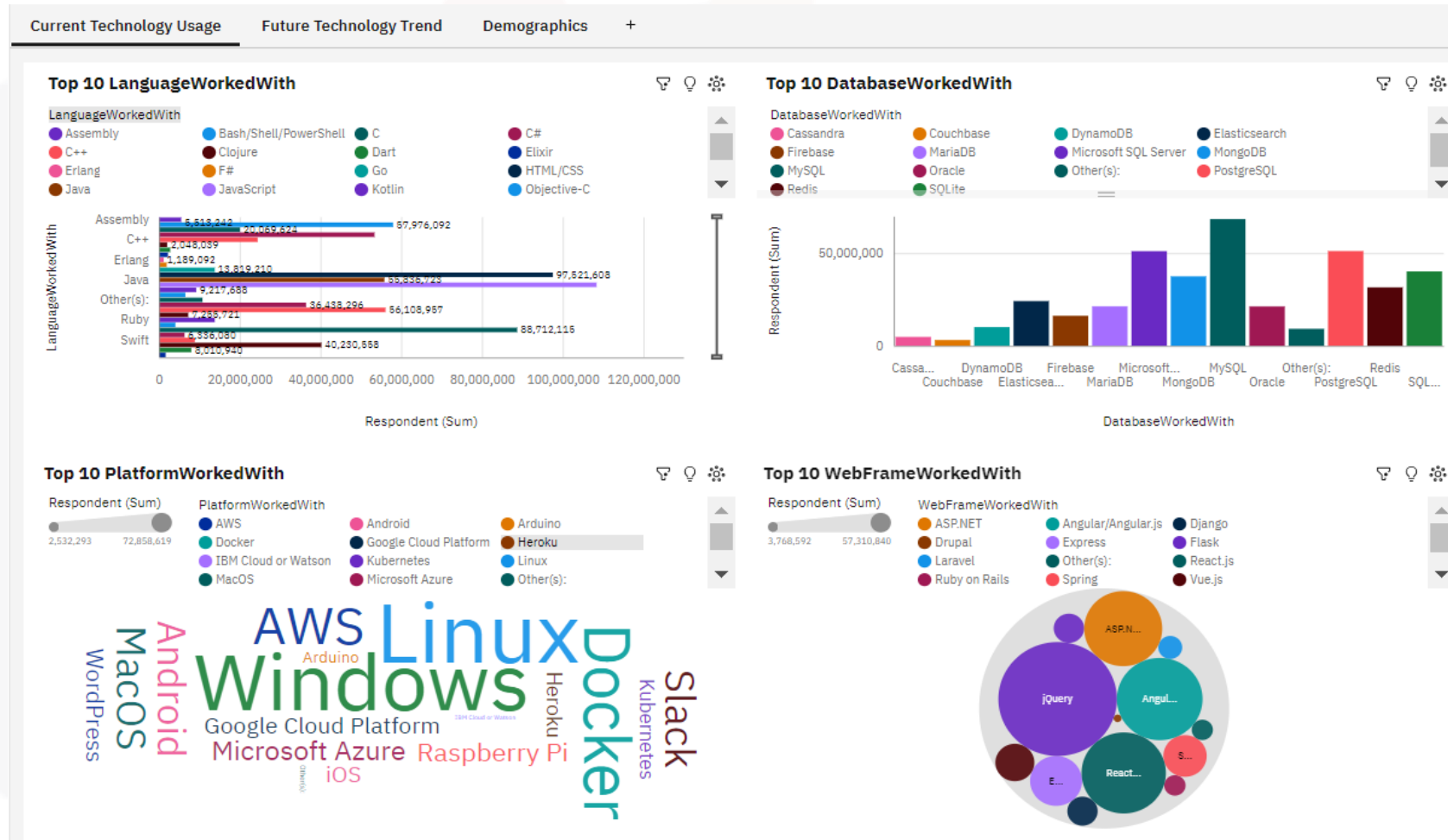
Implications

- MySQL will be the most requirement to use

- MongoDB will be much more popular

- Radish and Elasticsearch will be used in the top 5th used databases
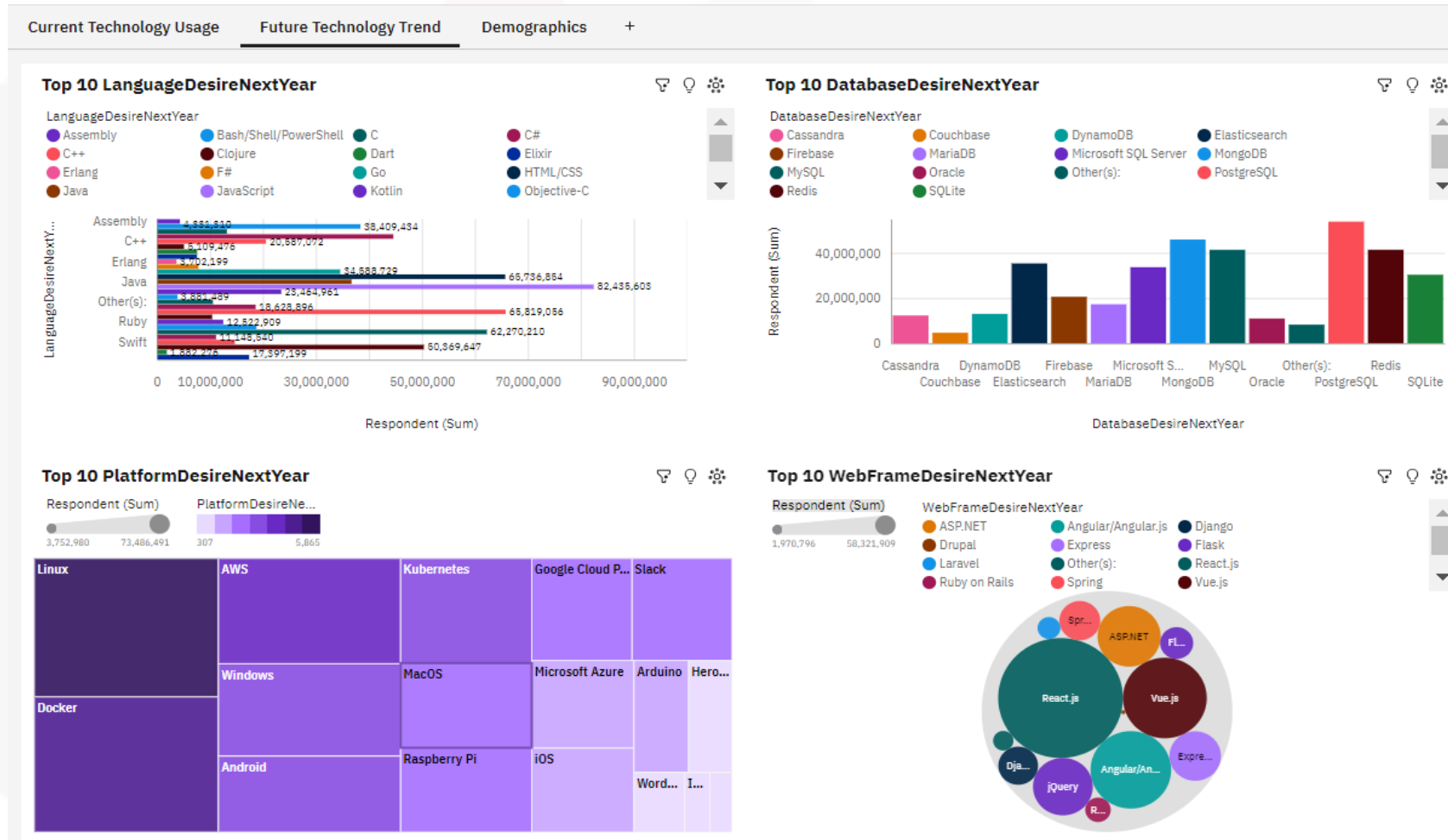
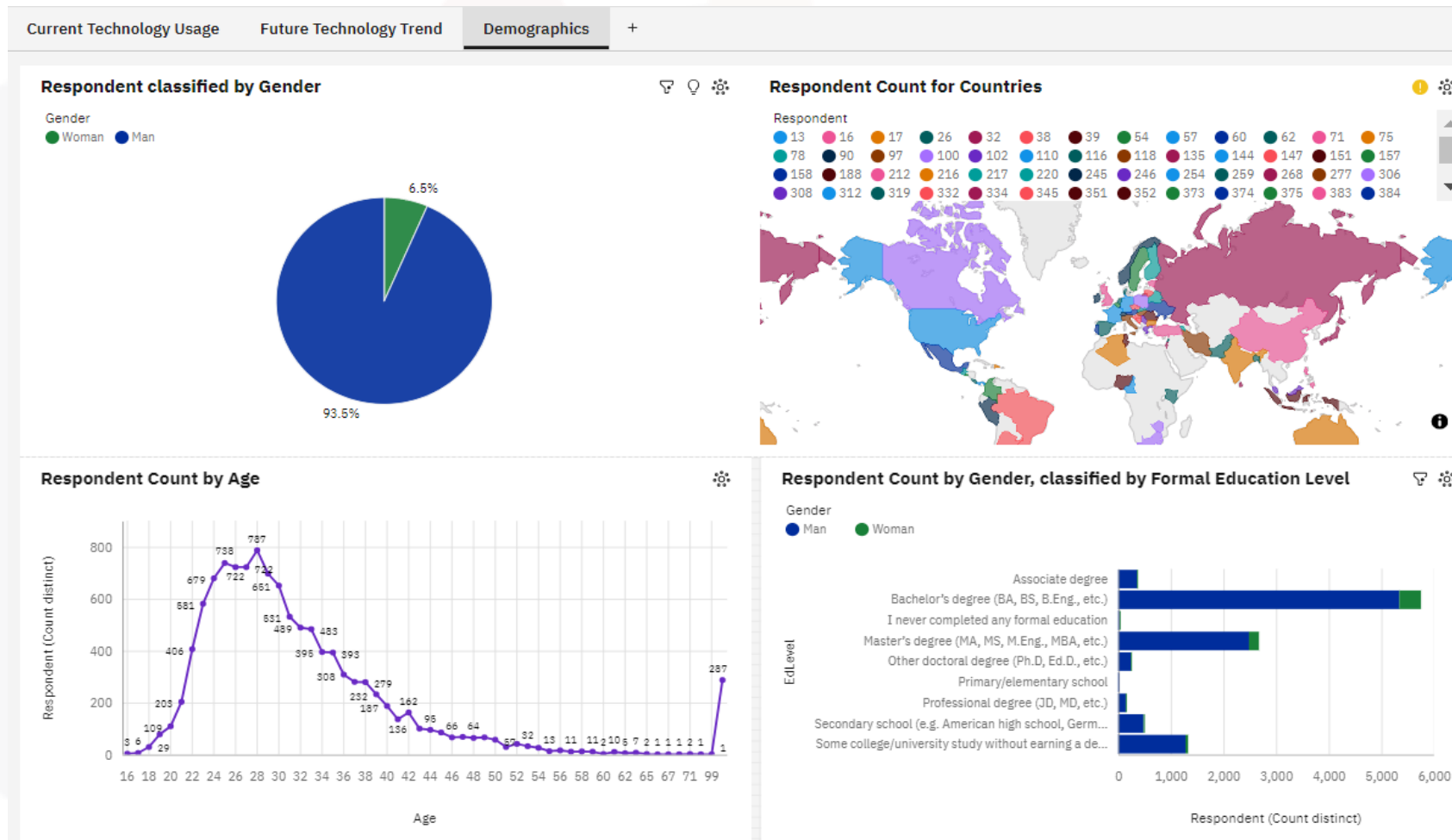# DASHBOARD

The GitHub link of the Cognos dashboard click here

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DASHBOARD TAB 1

DASHBOARD TAB 2

DASHBOARD TAB 3

DISCUSSION

- Technology Trends
- Reskilling Workers
- Gender Equality
- Adaptation of new Technology
- Using Popular platforms
- Hiring new Tech Workers

OVERALL FINDINGS & IMPLICATIONS

Findings

- By next year, JavaScript and HTML/CSS will be remained in the top 1st and 2nd

- While SQL is going to be surpassed by Python, Bash/Shell/PowerShell are not shown in the next year

- PostgreSQL is presented to be the 1st place instead MySQL, compared with disappearing of Microsoft SQL Server and SQLite

- Platform Linux is the largest proportion, while windows will be replaced by Docker

- ReactJs is predicted to be the highest preference of Web Frame in the next year instead of Query

- By gender, men is shown respondence more than women which the most number presented in Russia Federation and age around 28 who have Bachelor's degree
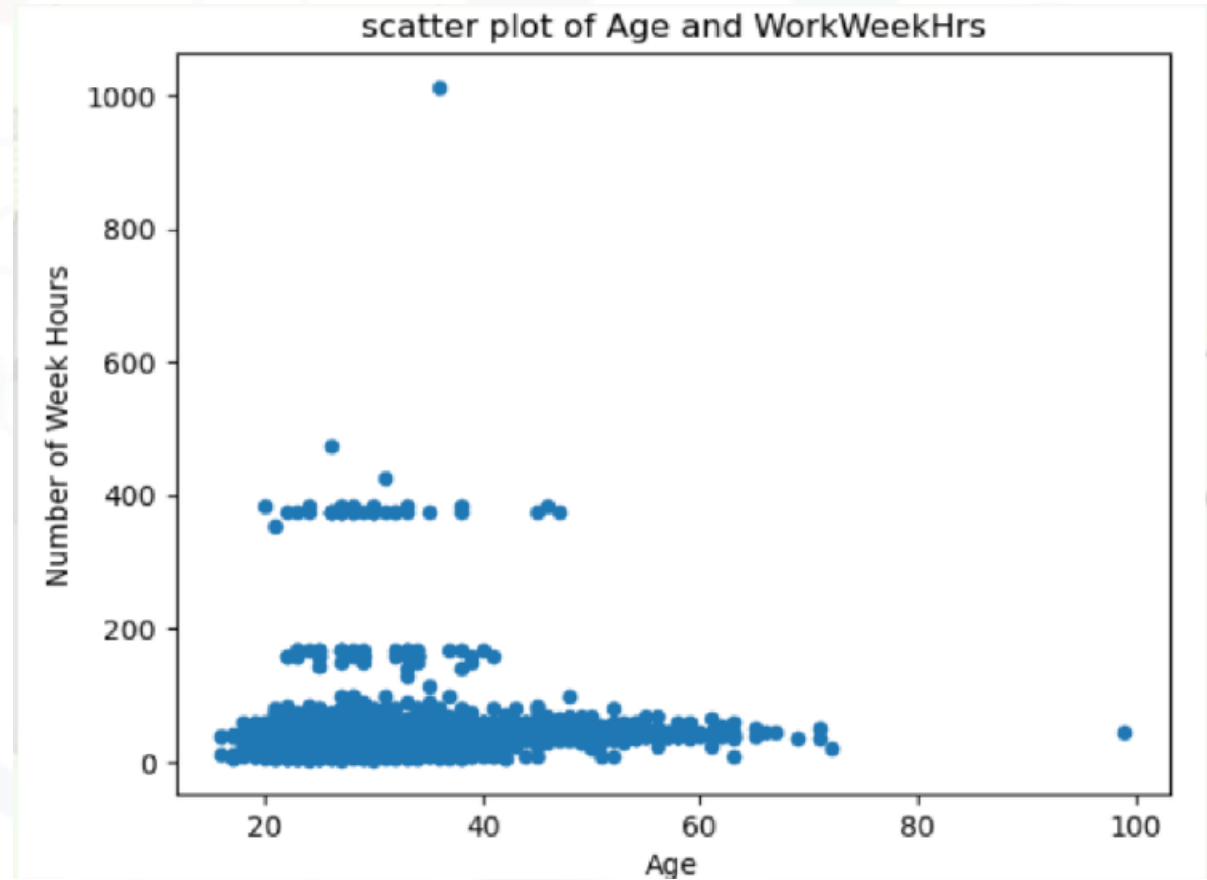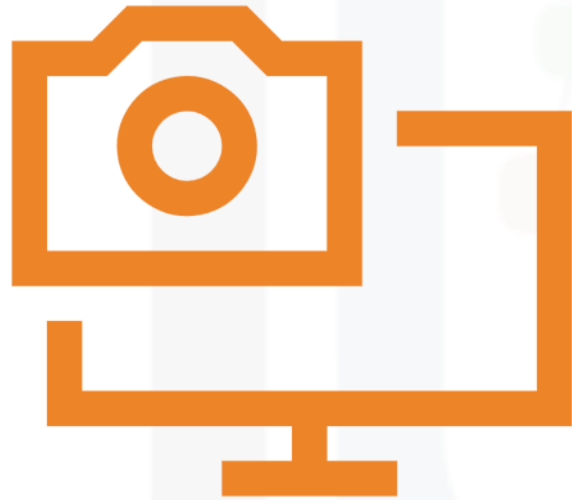
Implications

- JavaScript and HTML/CSS will be continue popular

- Python is going to be more interested

- SQL servers will be required but the most popular database is expected to be PostgreSQL

- Docker is more preferred as much as Linux

- The demand of jQuery is decreasing

- It is assumed that The large number of young Russian men who have Bachelor's degree tend to response in the analysis
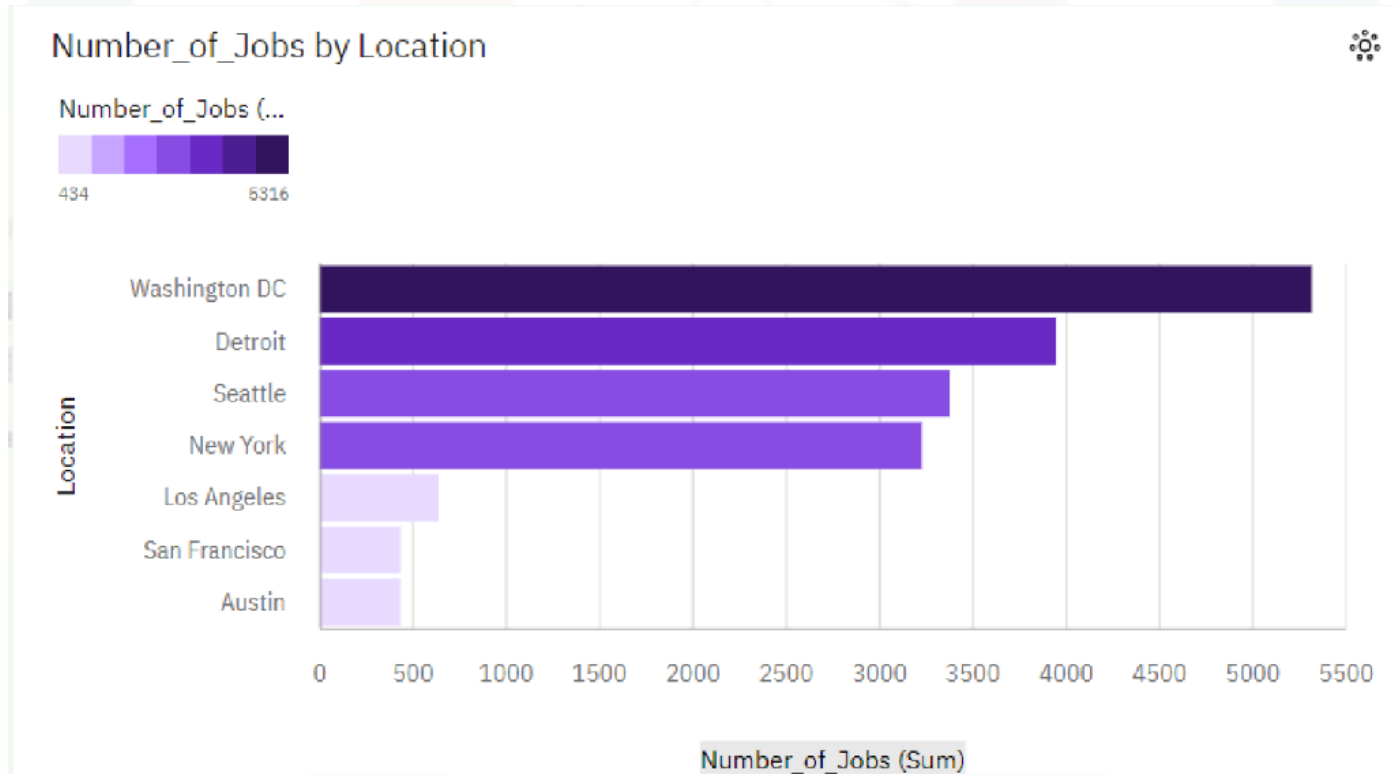
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CONCLUSION

- Technology Trends

- Demographics Overviews

- Future Skills and preferences

- Technology to Adapt

- Preferred Actions

APPENDIX

scatter plot of Age and WorkWeekHrs

JOB POSTINGS

POPULAR LANGUAGES

Annual average salary by Language name

annual average sa...

84,727 — 130,801

Language name: Swift, Python, C++, Javascript, Java, Go, R, C#, SQL, PHP

annual average salary (Average)