



<IBM Data Analytics Capstone Project >

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OUTLINE



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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 Databases 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

INTRODUCTION



- The top 10 Programming Languages in demand.
- The top 10 database skills in demand.
- The top Platformed utilization.
- The top 10 Web-frame platforms in demand.

METHODOLOGY



- Collect Data from Stack Overflow Developer Survey -2019
 - By using – API.
 - By using – Web-scraping.
- Exploration of Data
 - Sorting duplicates & removing Duplicates.
 - Organize missing values.
 - Normalizing the data.
 - Sorting outliers.
 - Perform correlation.
- Visualization of data
 - Visualization distribution, relation, composition & comparison of data.
 - Arrange & build dashboard.

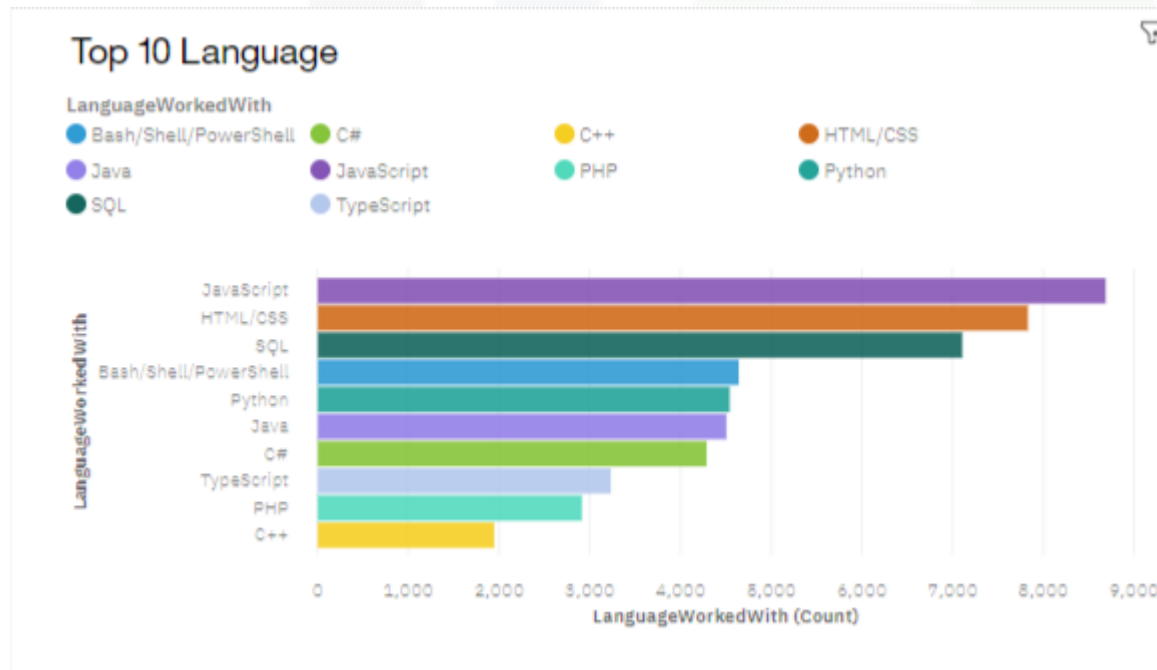
RESULTS



PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

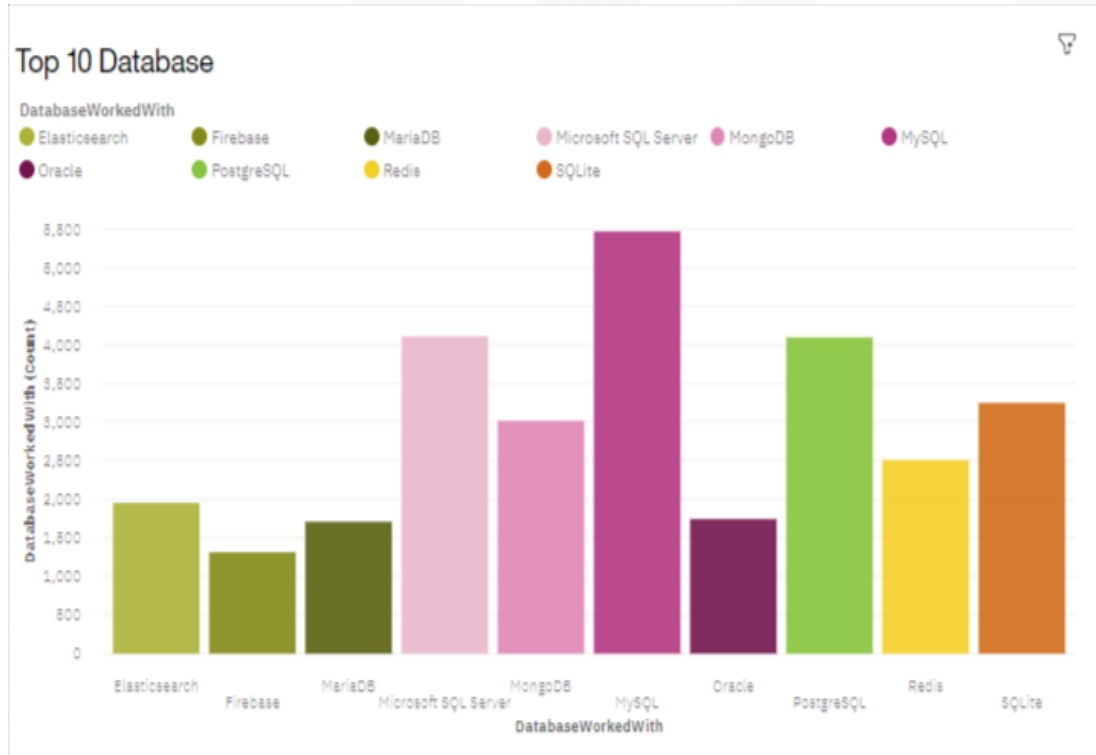
- JS being the most popular language
- C++ being the least popular language
- Python and SQL are among the top 5 languages due to the demand of data scientists.

Implications

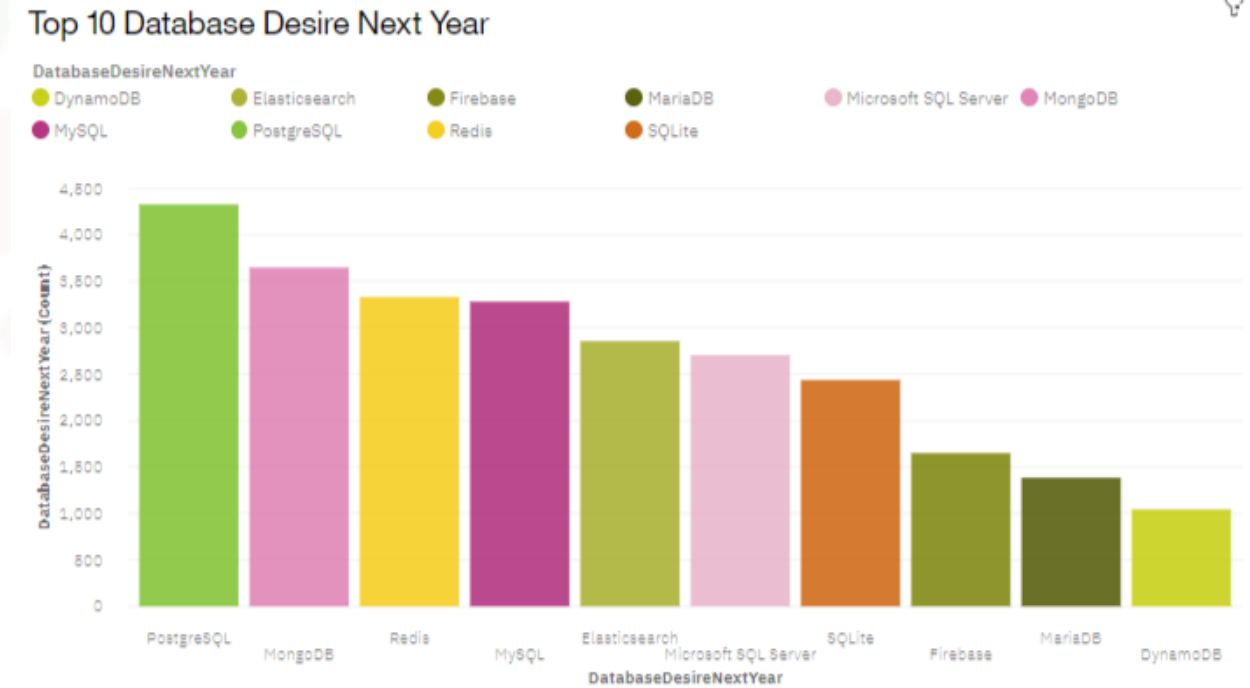
- Upcoming demand raises for Python and SQL due to their flexibility in data science.
- Go and Kotlin is taking upcoming the attention.
- JS will remain the top in demand due to the demand in software development.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is top in-demand while Microsoft SQL Server is following it.
- Firebase is the least in demand.
- PostgreSQL and MongoDB is an upcoming trend.

Implications

- PostgreSQL need to implement among user.
- Dynamo DB is replacing oracle.
- Redis, MySQL & MongoDB appear to get a similar interest in database choice.

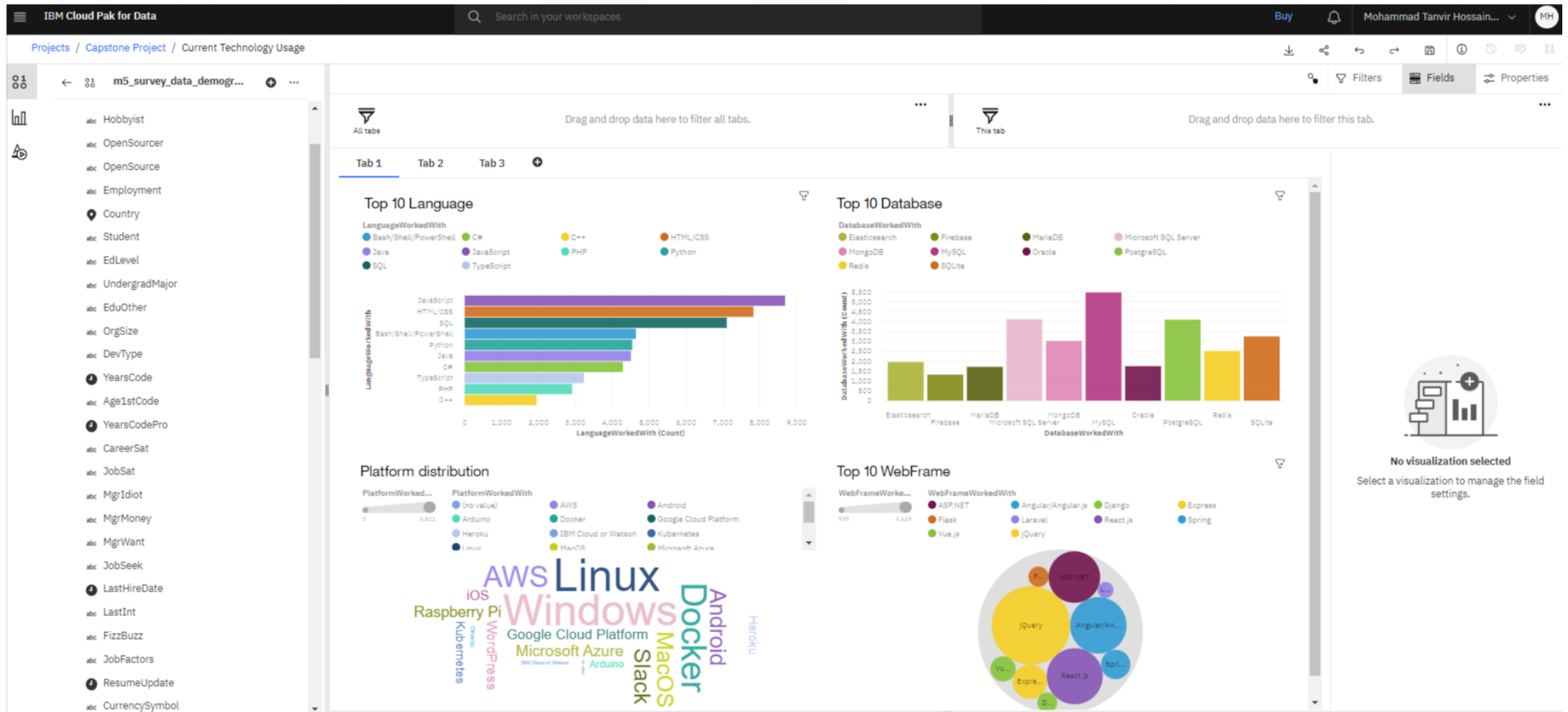
DASHBOARD

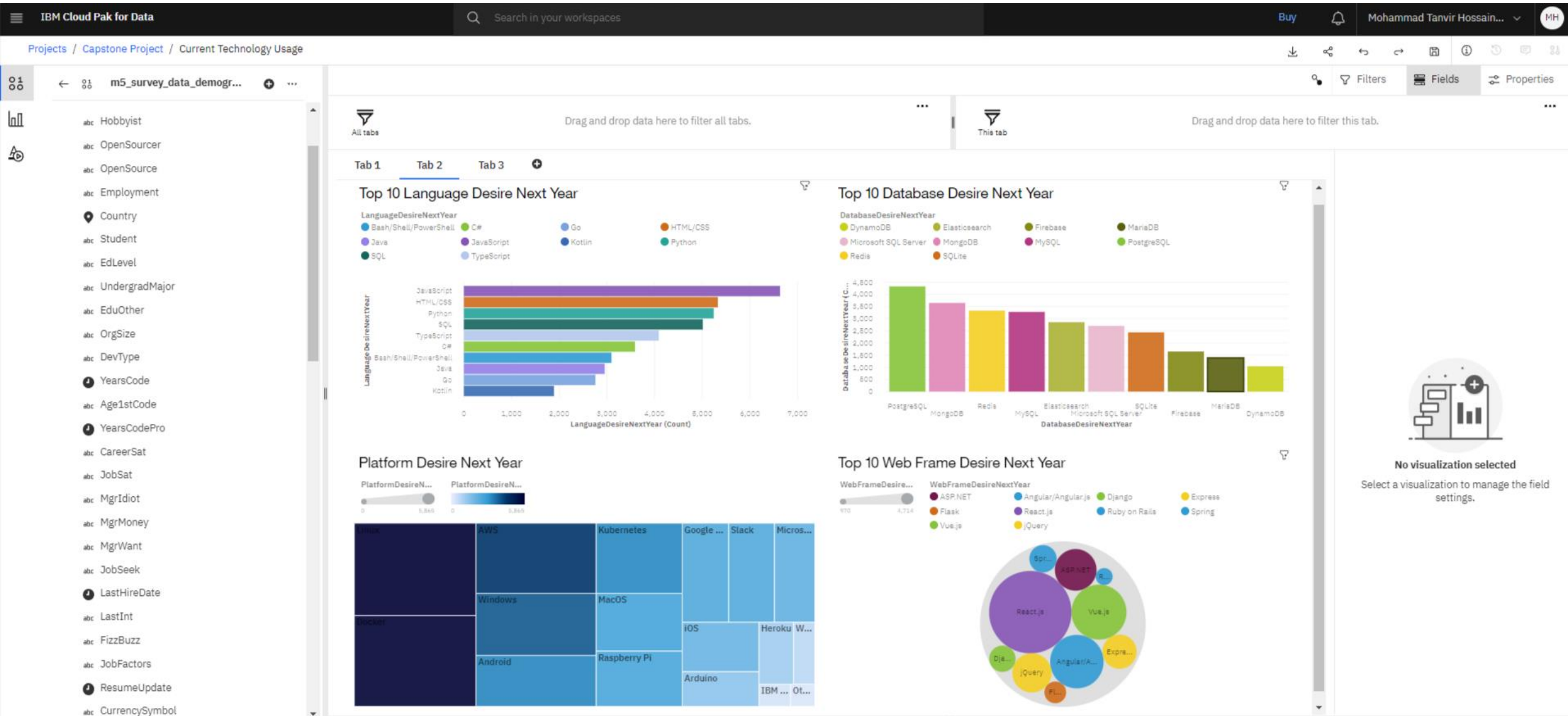


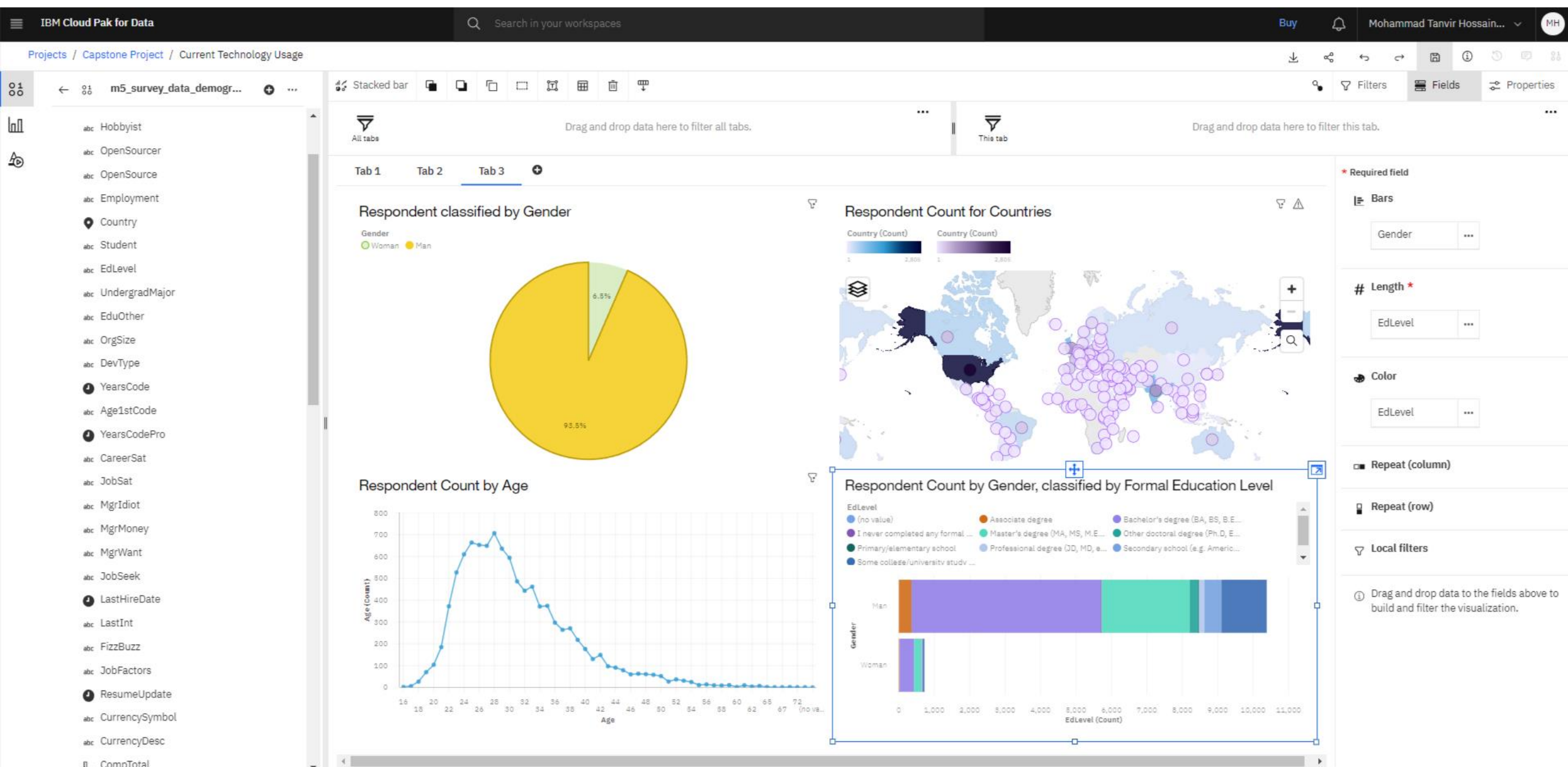
The permanent link of the read-only view of the Cognos dashboard is as follows –

<https://dataplatfom.cloud.ibm.com/dashboards/4c961828-7ef5-4fef-8866-19a4457775f4/view/6469b8076fef1fcc44c9eee4079b7d0075302d5ab4bb865281867b495a357797a8684590c82c4e5ad9470d61a6be175f9c.>>

DASHBOARD TAB 1







DISCUSSION



- All aged groups are used for the survey.
- Only male and female genders are considered for the survey.
- People from different countries took part in the survey.
- Various education level persons were considered as well.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Upcoming programming language trend suggests a good demand in the data science field.
- Non-relational databases are capturing the trend.

Implications

- People are interested in advanced programming languages with user-friendly commands.
- People are interested in data science because it seems to have a great future.

CONCLUSION



- The major programming language that will be used in future is JS which is an ongoing demand.
- PostgreSQL is going to replace the MySQL in future due to its ongoing demand.
- Linux and Docker will be most popular platforms in near future.
- React.js is going to replace the demand of JQuery in near future.