Its future feature skill requirements

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1/28/2023

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EXECUTIVE SUMMARY

- At first we collected the data using apis and web scrapping.
- Then we did some data wrangling to deal with data quality issues like null values.
- After that we built dashboards to have a better insights.
- We found that there is a big difference in desired IT technologies.
- The survey is biased for the men and the age, so we need to deal with that.
- In the end based on the previous we need to edit the future policy to be more efficient with new changes.

INTRODUCTION

- There are a lot of IT Technologies we use them today.
- Year after year those technologies are changing.
- We want to figure out what the important technologies for the next year.
- Analyzing the data we have, trying to figure out:
  - Insights, Trends and information between the features.
  - Which technology will become more used, and which won't.

METHODOLOGY

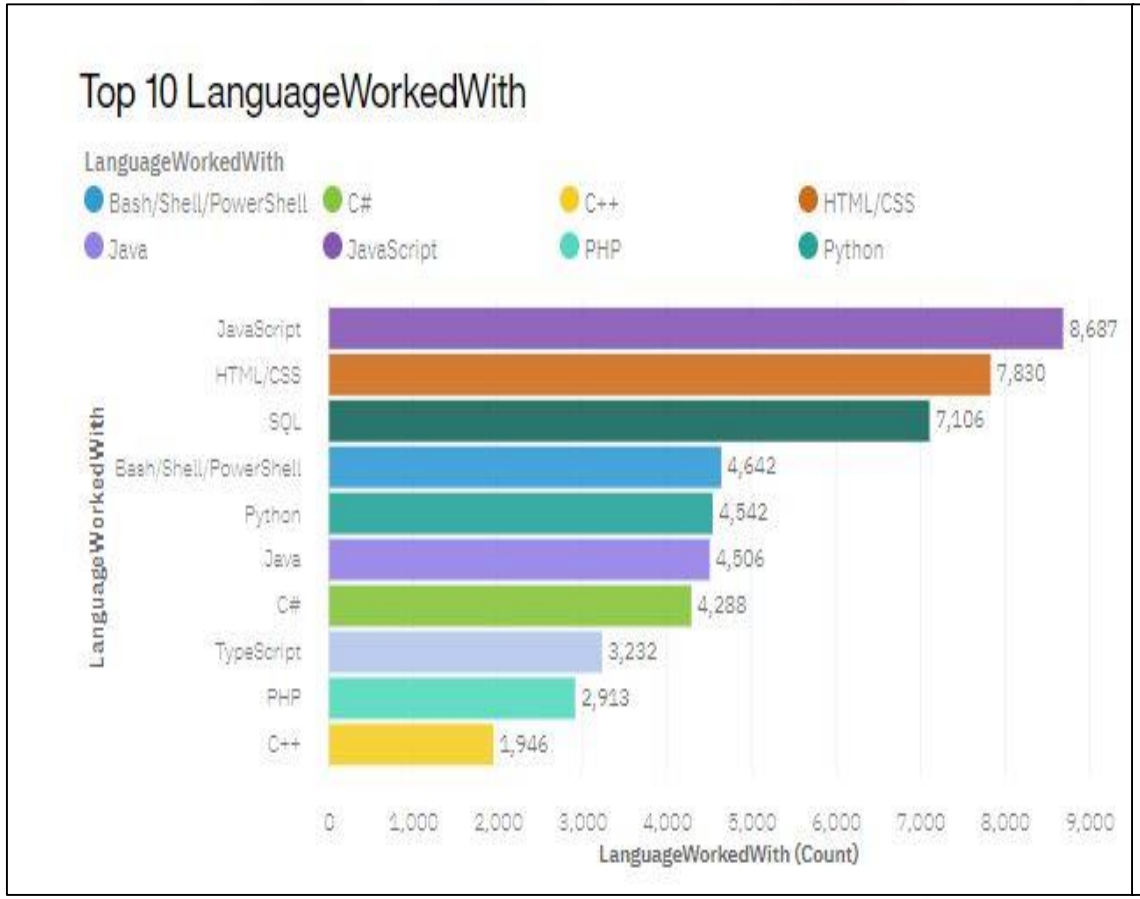
- At first the data collected.
- Then applied data wrangling on data.
- After that Exploratory Data Analysis EDA was done.
- Building plots and Dashboards as the following:
  - Current technology usage.
  - Future technology trend.
  - Demographics.

RESULTS

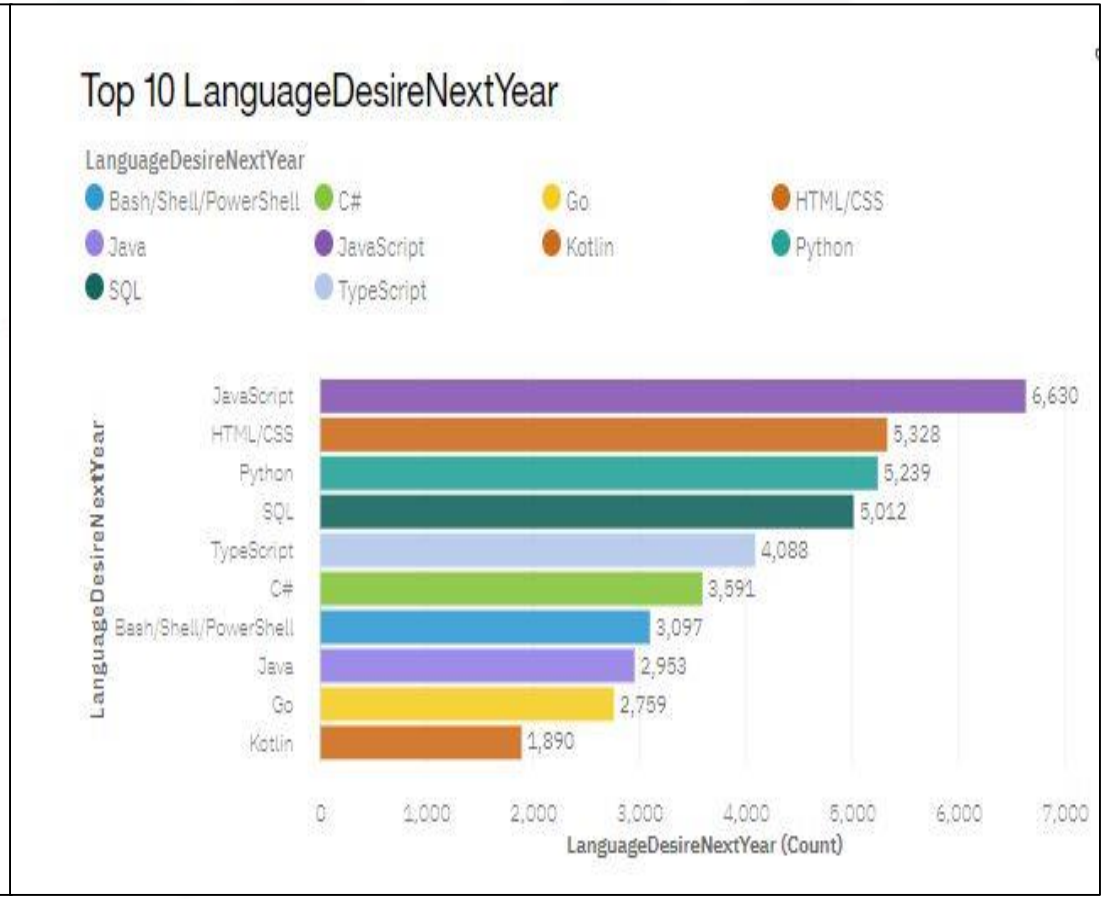
- Collecting data:
  - Collected from the web using web scrapping and from specific apis for stackoverflow survey (Dataset Link).
- Data wrangling:
  - In this stage we search for data quality issues like Null, Duplicated and inconsistency data, and deal with them.
- Exploratory Data Analysis (EDA):
  - Here we build dashboards to have better insights, we have 3 dashboards (Current Technology Usage – Future Technology Trends – Demographics).

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

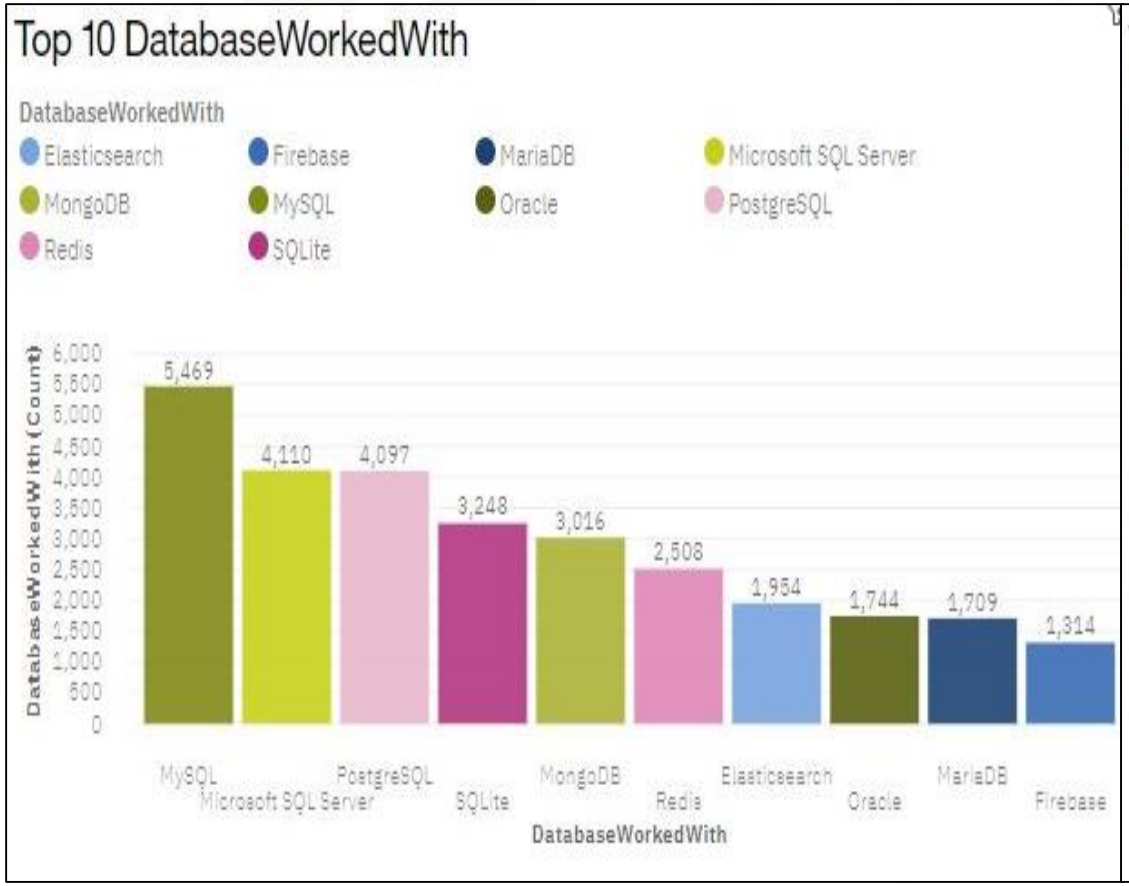
- JavaScript, Html and CSS still as they are.
- Python, C#, Typescript, Go and Kotlin has more desired.
- SQL, Java, PHP and Bash/Shell/PowerShell become less desired.

Implications

- we need to have more attention about the new preferred languages, and make plans to deal with the new changing.
- Still focused on technologies that still important.

DATABASE TRENDS

Current Year



Next Year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MariaDB still as it is.
- PostgreSQL, MongoBD, Redis, Elasticsearch, DynamoDB, and Firebase become more desired.
- MySQL, SQL Server, SQLite, Oracle,

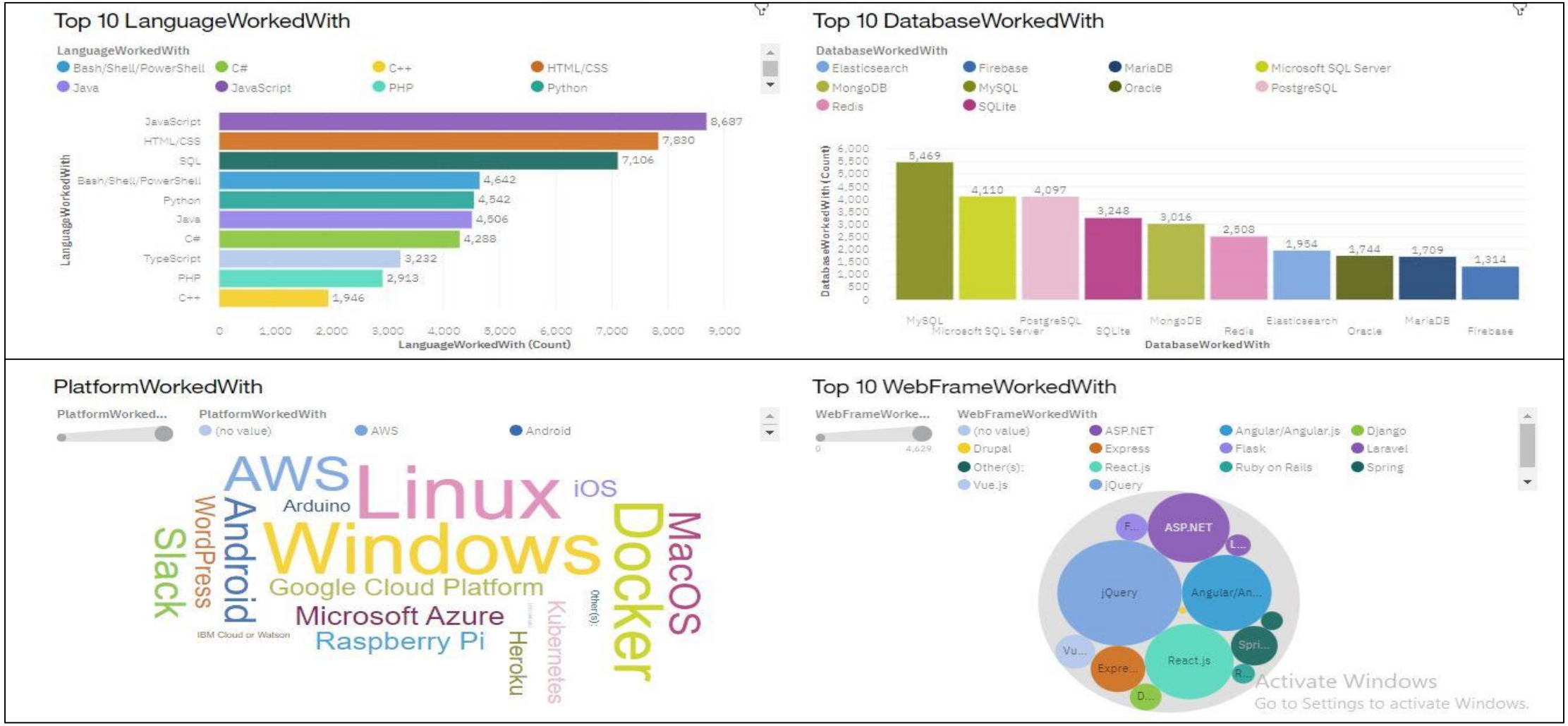
Implications

- we need to have more attention about the new preferred Databases, and make plans to deal with the new changing.
- Still focused on technologies that still important.

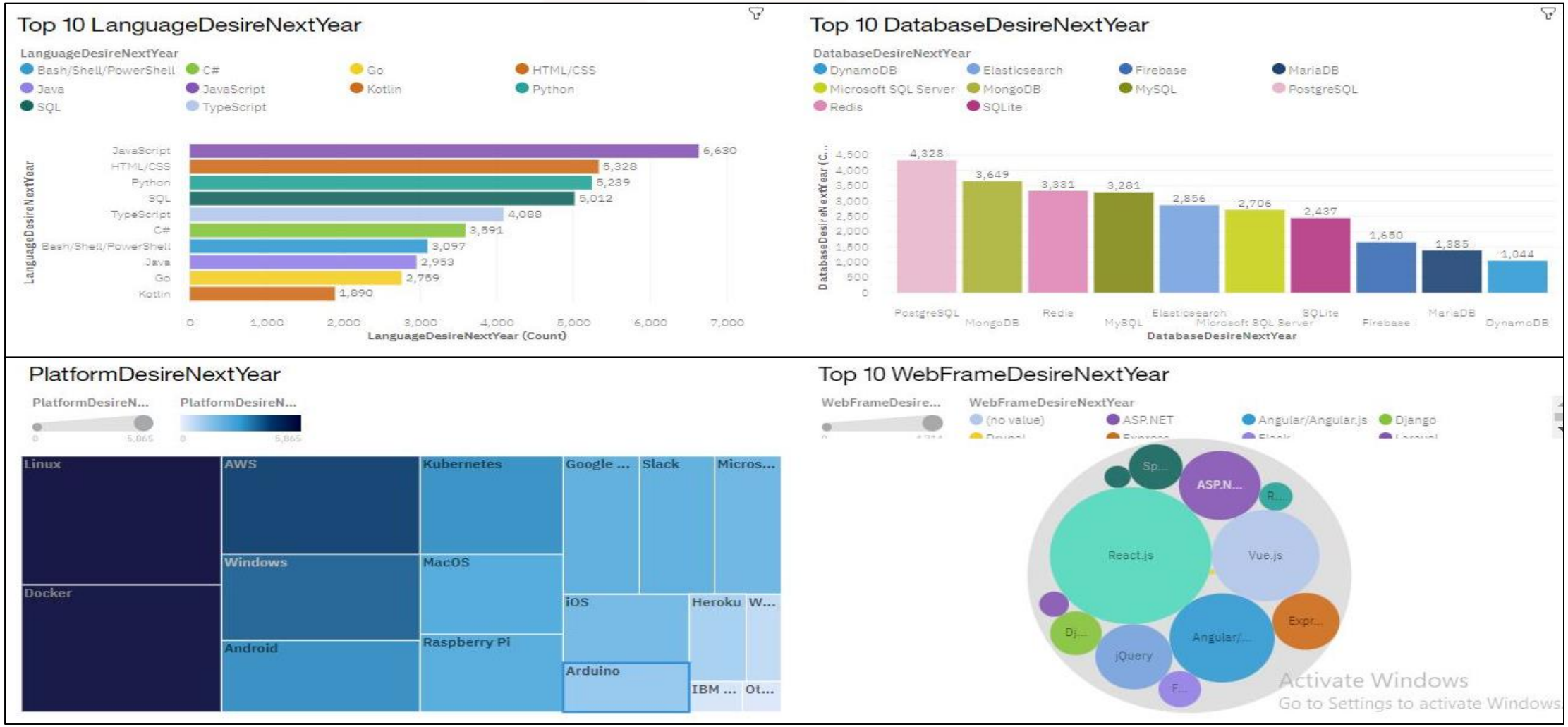
DASHBOARD

Dashboards Link:
Dashboards

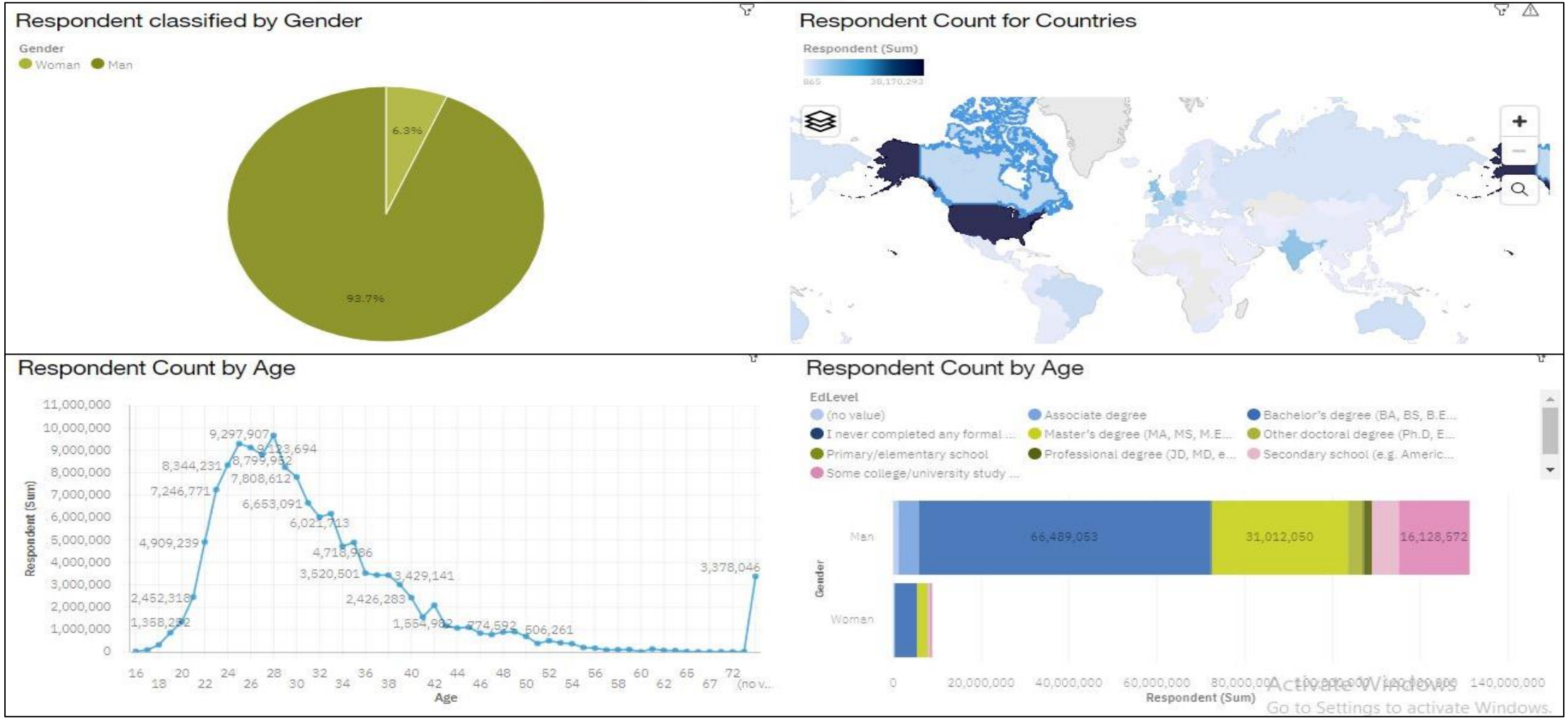
DASHBOARD Current Technology Usage



DASHBOARD Future Technology Trend



DASHBOARD Demographics



DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- There is a big difference between the current and desired technologies.
- The most respondents are men by 90%.
- USA, Canada and India have the biggest numbers of Respondents.

Implications

- we need to have more attention about the new preferred Databases, and make plans to deal with the new changing.
- We need to deal with the bias for the men and try to make more fairly survey, also for the age.
- we need to get information from the whole world not just some countries.

CONCLUSION

- The need some wrangling to deal with data quality issues like null values.
- After that we built dashboards to have a better insights.
- We found that there is a big difference in desired IT technologies.
- The survey is biased for the men and the age, so we need to deal with that.
- In the end based on the previous we need to edit the future policy to be more efficient with new changes.

APPENDIX