IBM DATA ANALYST CAPSTONE PROJRCT PRESENTATION

Prepared by:

Temitope Adepoju

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OUTLINE

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- Methodology
- Results
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- Discussion
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- Conclusion
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EXECUTIVE SUMMARY

- This project comprises of three different tabs
- The first tab is about current technology usage
- The second tab is about future technology trend
- The last tab is about demographics

INTRODUCTION

This report aims to delve into current technology usage, the future technology trend and the demographics.

Questions

Current technology:

- Top 10 languages, databases, platforms and webframes worked with.

Future technology trend:

- Top 10 languages, database, platforms and webframes desired to work with next year

Demographics:

- Respondent classified by work experience, respondent count for countries, respondent count by age and respondent count by gender classified by educational level

METHODOLOGY

The data source for this analysis is a secondary data and comes from https://stackoverflow.blog/2019/04/09/the-2019-stack-overflow-developer-survey-results-are-in/. https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m5_survey_data_demographics.csv , https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-SkillsNetwork/LargeData/m5_survey_data_technologies_normalised.csv

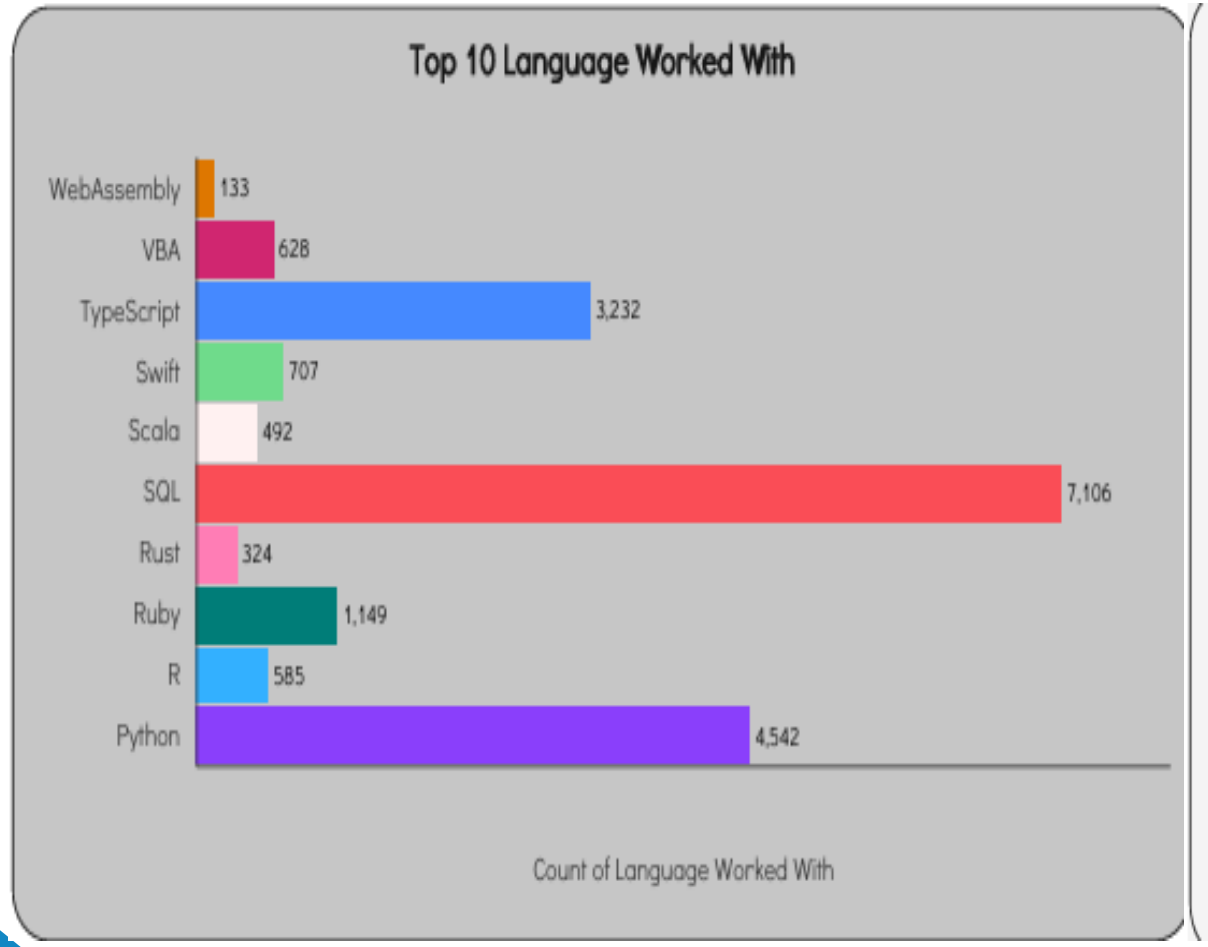
The data was analyze and visualized using cognos analytics.

RESULTS

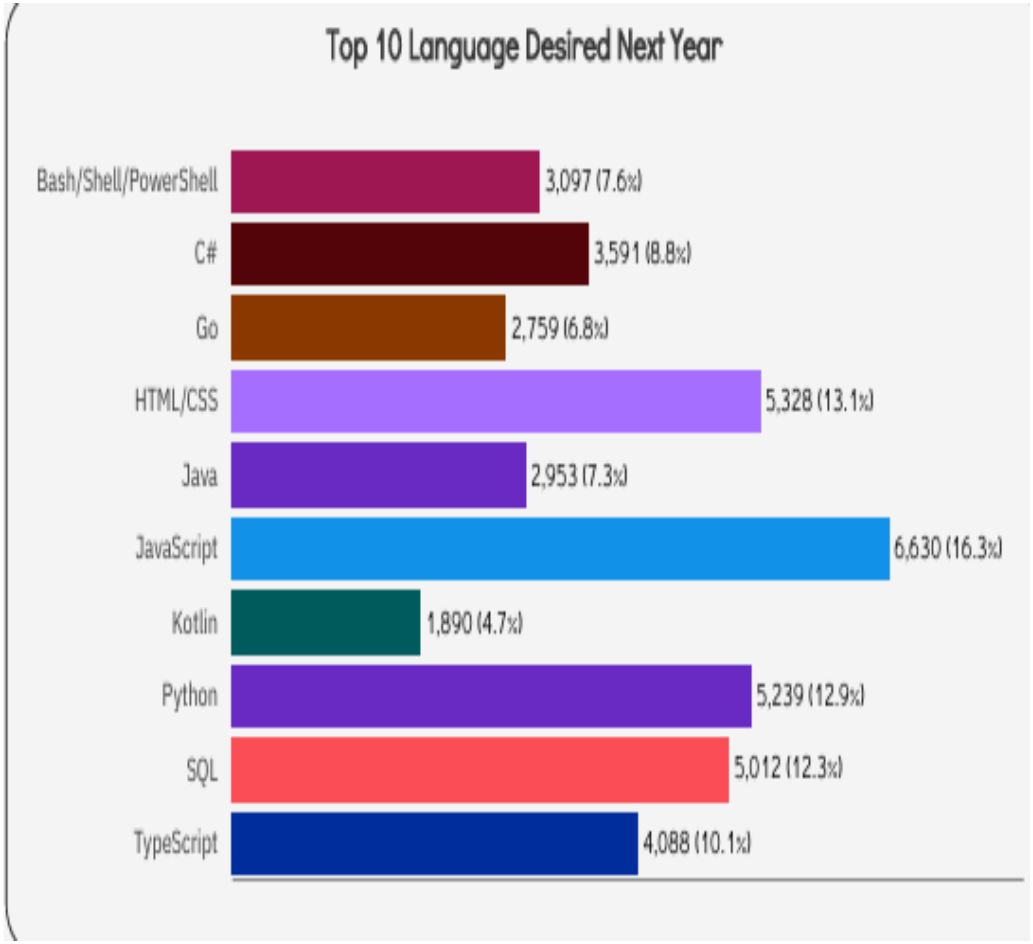
1. Programming language trend
2. Databases Trend

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings:

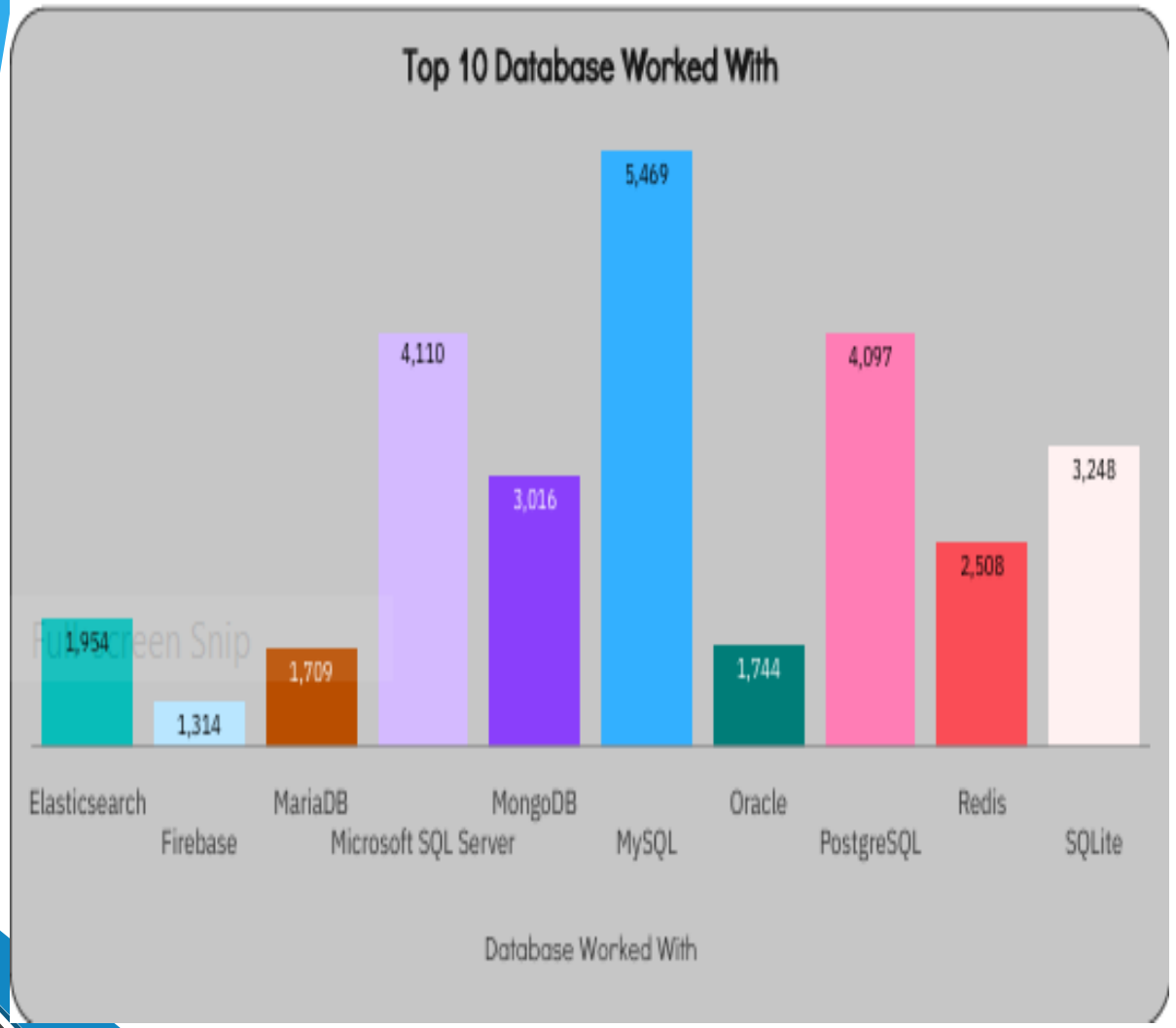
- In the current years programmer prefers to work with SQL, python and type script, Ruby, VBA, swift, Scala, R, Rust and web assembly.
- In next year programmers desired to work with Javascript, HTML/CSS, Python, SQL, T ypescript, C#, PowerShell, GO, JAVA, and kotlin

Implications:

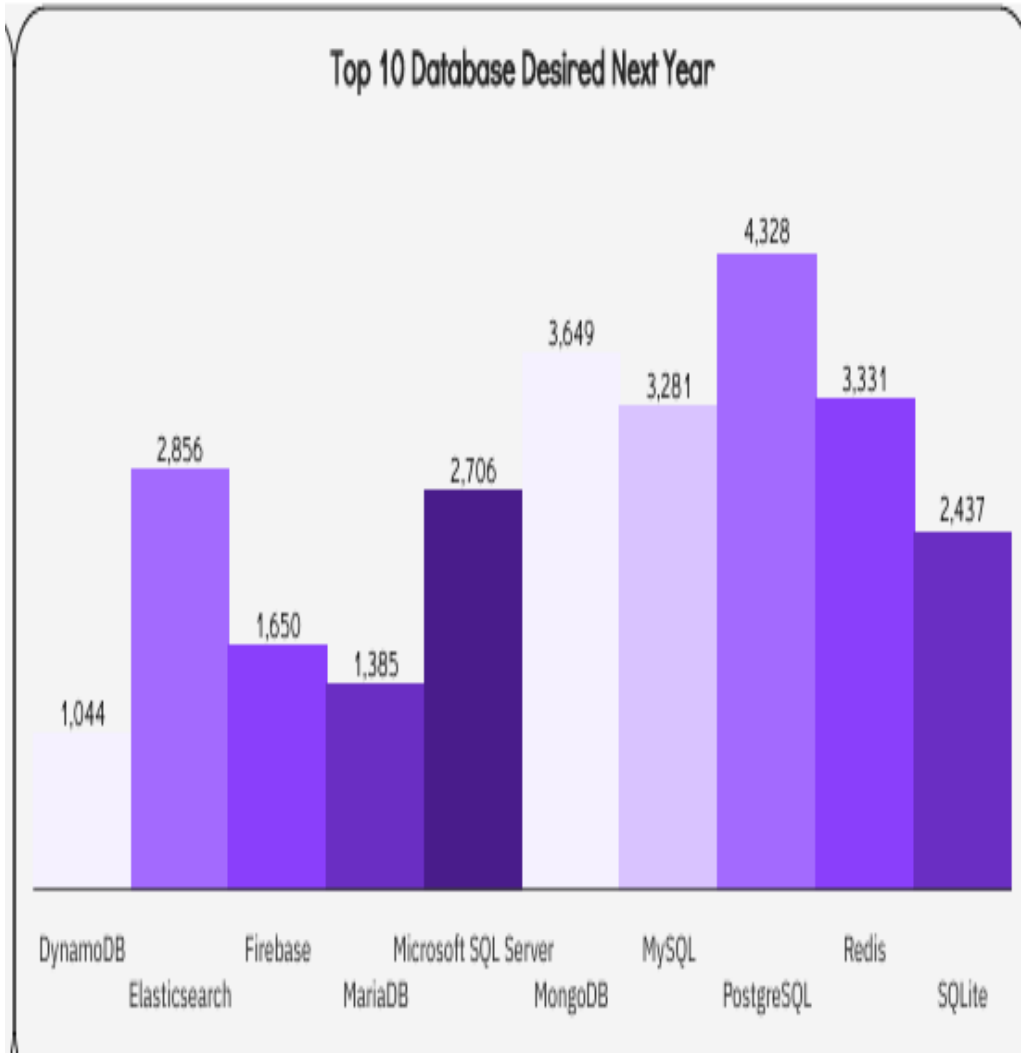
- The change in preferred programming languages reflects evolving industry trends and demands.
- The shift towards languages like Python, SQL, and TypeScript in both years highlights their continued relevance and strong demand across various domains.
- the shift in programming language preferences reflects a dynamic industry where developers continually evaluate and adjust their skillsets to meet evolving demands and seize emerging opportunities.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS-FINDINGS & IMPLICATIONS

Findings

- Programmers choose MySQL, Microsoft SQL server, PostgreSQL, SQLite, MongoDB, Redis, ElasticSearch, MariaDB and Oracle in the current year

- Programmers prefer to use PostgreSQL, MongoDB, Redis, MySQL, ElasticSearch, Microsoft SQL Server, SQLite, Firebase, MariaDB and DynamoDB database in the coming year.

Implications

- The preference for a diverse range of databases, including both relational (e.g., PostgreSQL, MySQL) and NoSQL (e.g., MongoDB, Redis) solutions, highlights the importance of choosing databases that best fit the specific requirements of each project

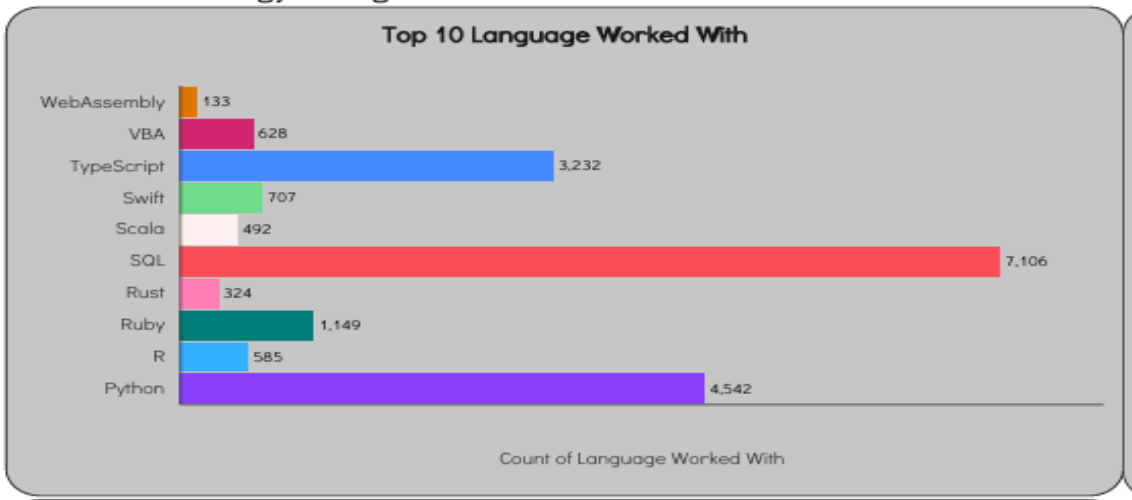
- the shift in database preferences reflects the dynamic nature of the database ecosystem, with developers continually evaluating and selecting the most suitable solutions to meet the evolving needs of modern applications and businesses.

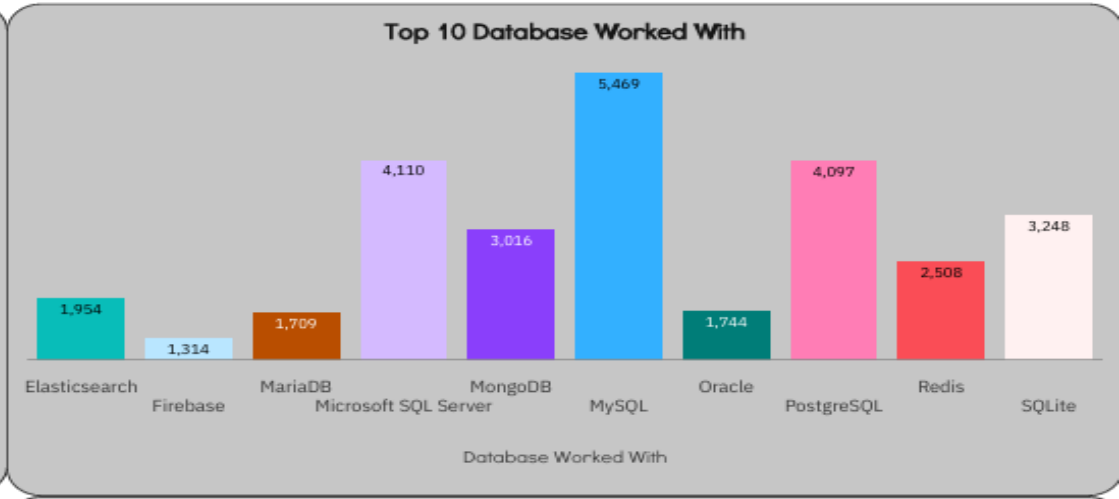
DASHBOARD

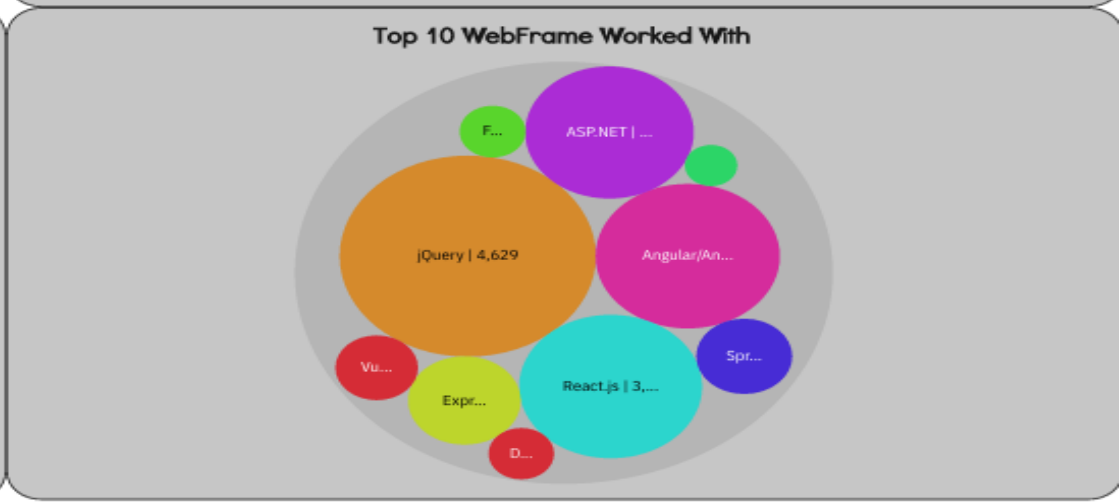
https://github.com/Temitopeadep/Building-A-Dashboard-With-IBM-Cognos-Analytics/blob/main/Assignment%20Part%20A%20cognos.pdf

DASHBOARD TAB 1

Current Technology Usuage

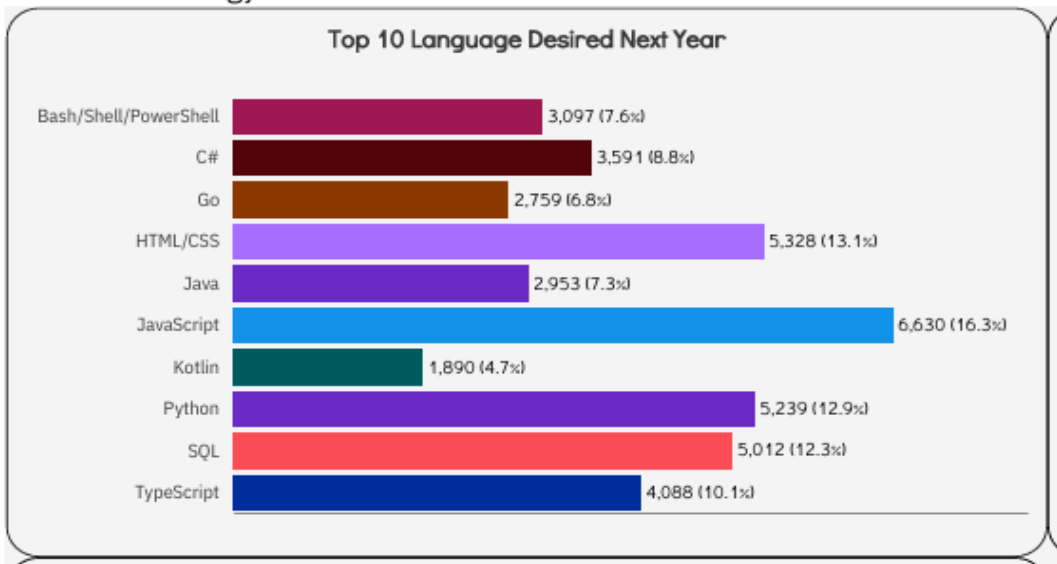


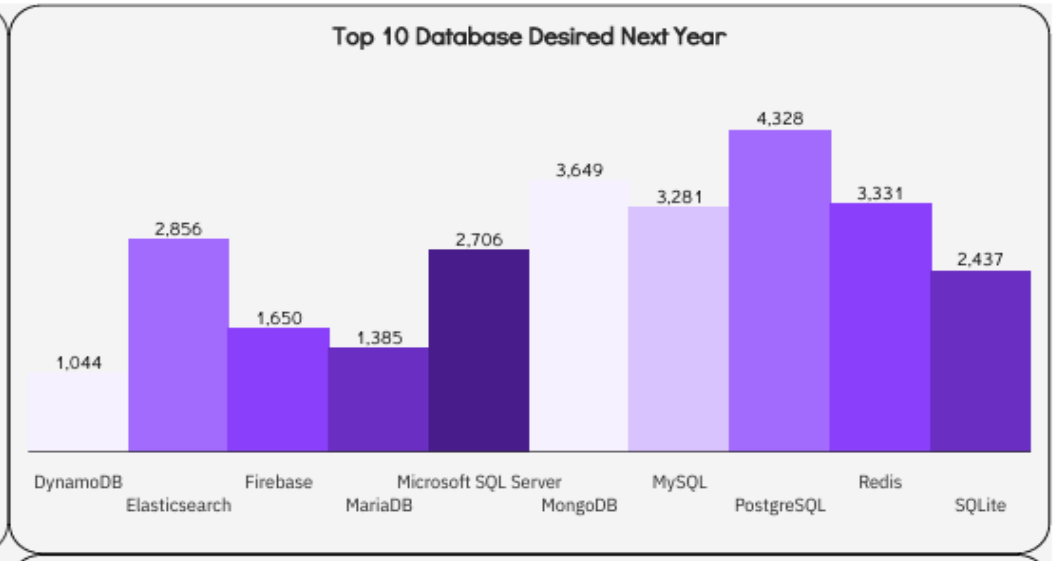


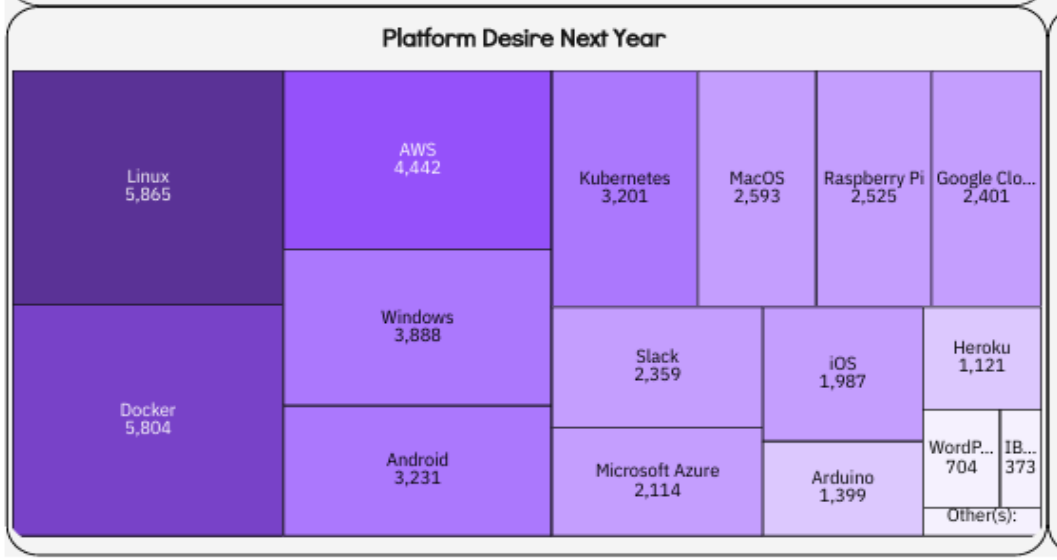


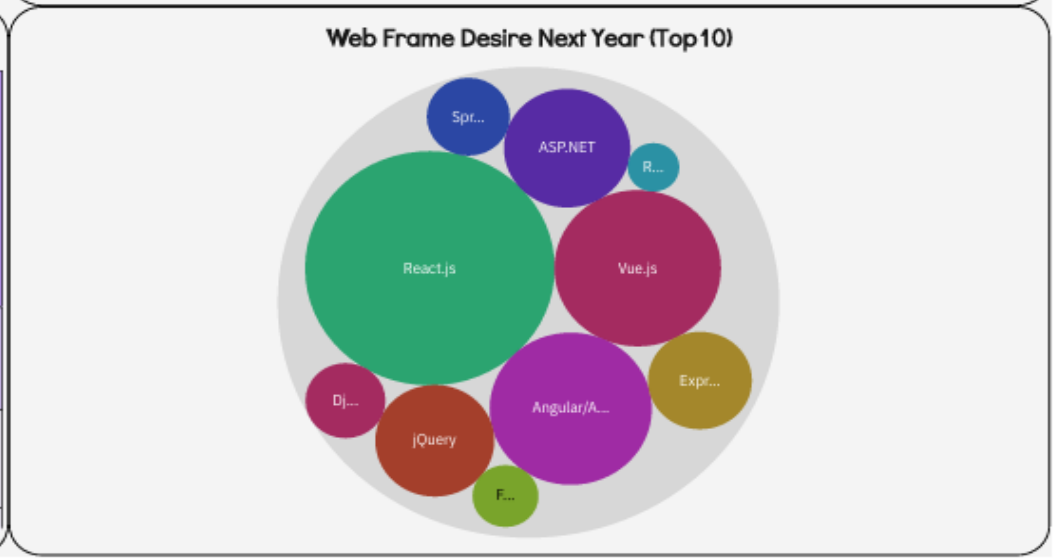
DASHBOARD TAB 2

Future Technology Trend



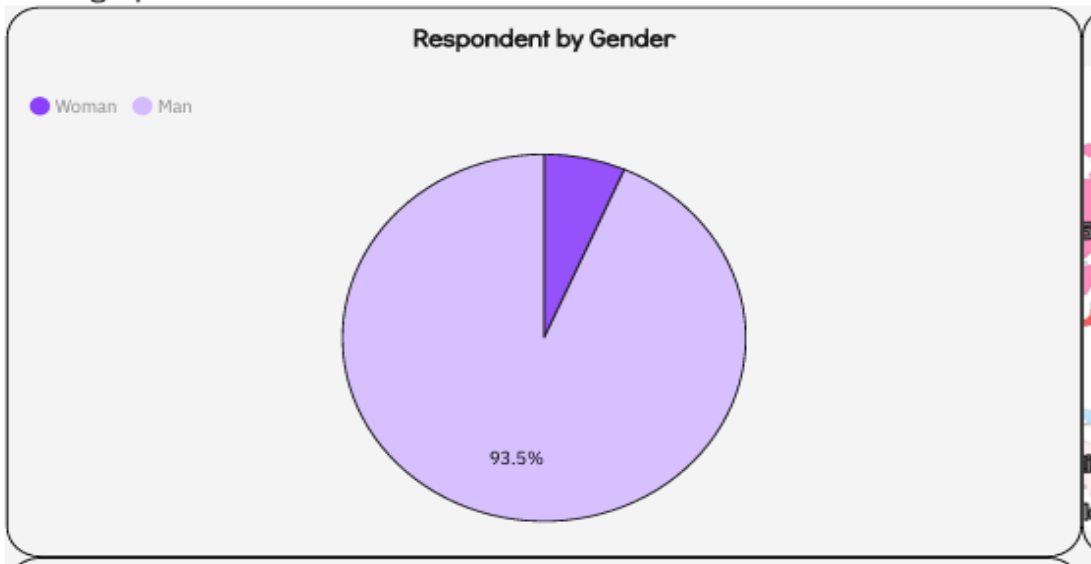


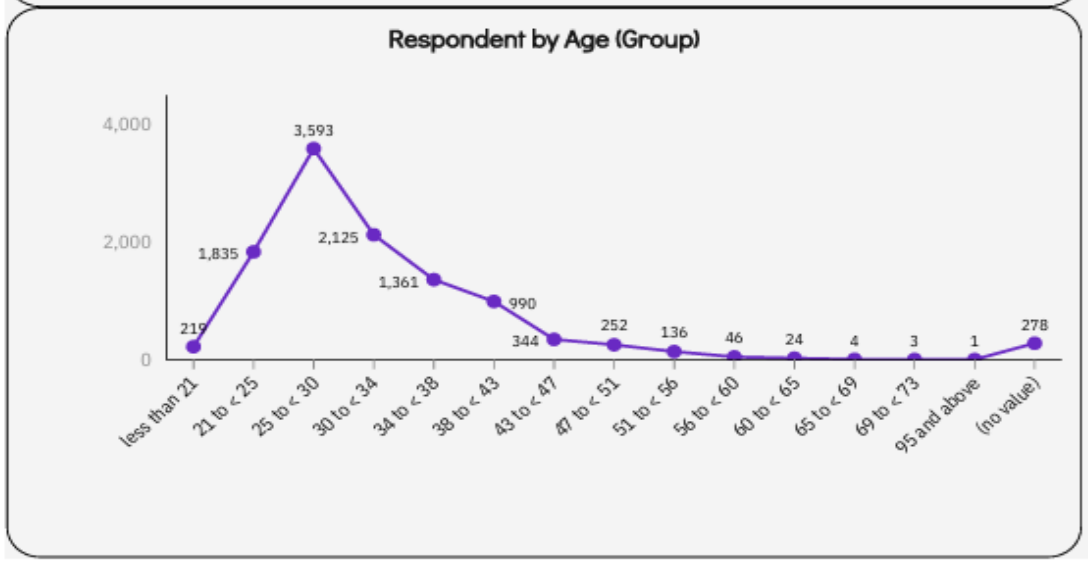


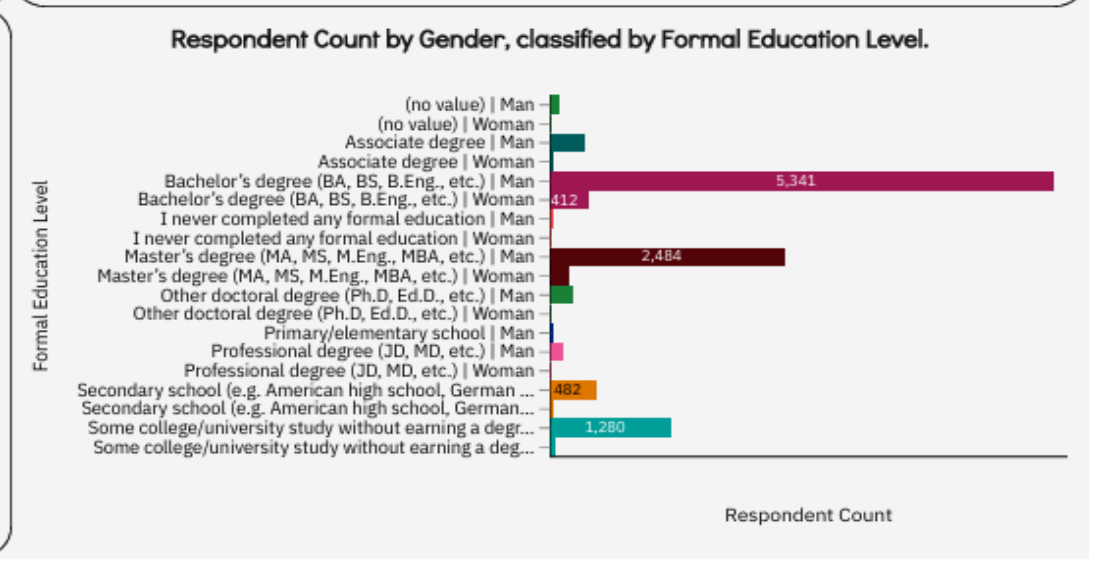


DASHBOARD TAB 3

Demographics







DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- 93.5% of the respondent are males
- Age group of less than 21 to 43 are the major respondent
- Major respondent have Bachelor degree

OVERALL FINDINGS & IMPLICATIONS

Implications

- the implication of having 93.5% male respondents underscores the importance of promoting gender diversity and inclusivity in survey research to ensure representative and actionable insights that reflect the perspectives and experiences of all individuals within a given population
- The concentration of respondents within a specific age range provides insights into the attitudes, behaviors, and preferences of particular generations, such as Millennials and Generation Z. Understanding the perspectives of these demographic cohorts can inform decision-making processes, marketing strategies, and policy initiatives tailored to their needs and preferences.
- The educational profile of respondents suggests that the survey findings may be particularly relevant to topics related to higher education, career development, professional aspirations, and workforce participation. Organizations, institutions, and businesses can tailor their products, services, and messaging to resonate with individuals who have bachelor's degrees and may have specific preferences, needs, and priorities shaped by their educational experiences.

CONCLUSION

- **Potential Biases in Methodology**: The gender imbalance in respondents may indicate biases in the survey methodology, recruitment strategies, or sample selection process. Addressing these biases is crucial for ensuring the validity and reliability of survey findings and promoting inclusivity in research practices.
- **Opportunity for Improvement**: Recognizing the gender imbalance in respondents presents an opportunity for researchers and survey organizers to take proactive steps to enhance diversity and inclusion in future survey efforts. This may involve implementing targeted outreach efforts, employing inclusive language and imagery, and fostering a supportive environment for diverse participation.

APPENDIX

- Total Number of respondent 11,398
- Total number of language worked with is 27
- Total Database worked with is 14
- Total platform worked with is 17