STACK OVERFLOW DEVLEOPER SURVEY

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22 October 2024

IBM Developer

SKILLS NETWORK

OUTLINE

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EXECUTIVE SUMMARY

The research aims to explore the data and perform a detailed analysis to extract key insights. It begins with a description of the methodology, outlining the approach used for systematic data gathering from reliable sources. This is followed by a thorough data analysis to uncover patterns, trends, and relationships.

The findings are then presented using visualizations, such as graphs and charts, to clearly illustrate important trends and support the results. The discussion section explores the broader implications of these findings, considering their significance in relation to the research objectives. The study concludes by summarizing the main insights and offering final recommendations.

INTRODUCTION

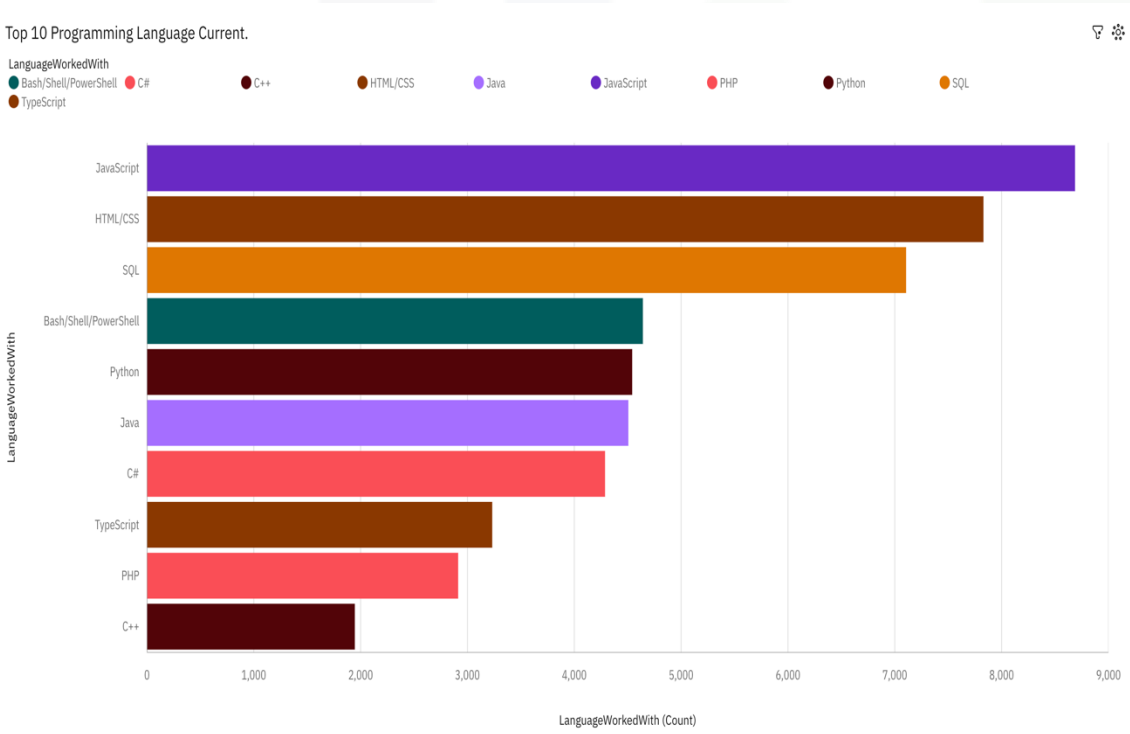
The Stack Overflow Developer Survey is an annual initiative that gathers insights from developers worldwide, providing a comprehensive overview of the global programming landscape. By collecting responses from a diverse group of developers, the survey explores key topics such as programming languages, tools, work environments, and career preferences. This valuable resource not only highlights current trends and emerging technologies but also sheds light on the challenges faced by developers in the industry. The findings serve as a guide for employers, educators, and the tech community, enabling informed decision-making and fostering a deeper understanding of the evolving needs of developers.

METHODOLOGY

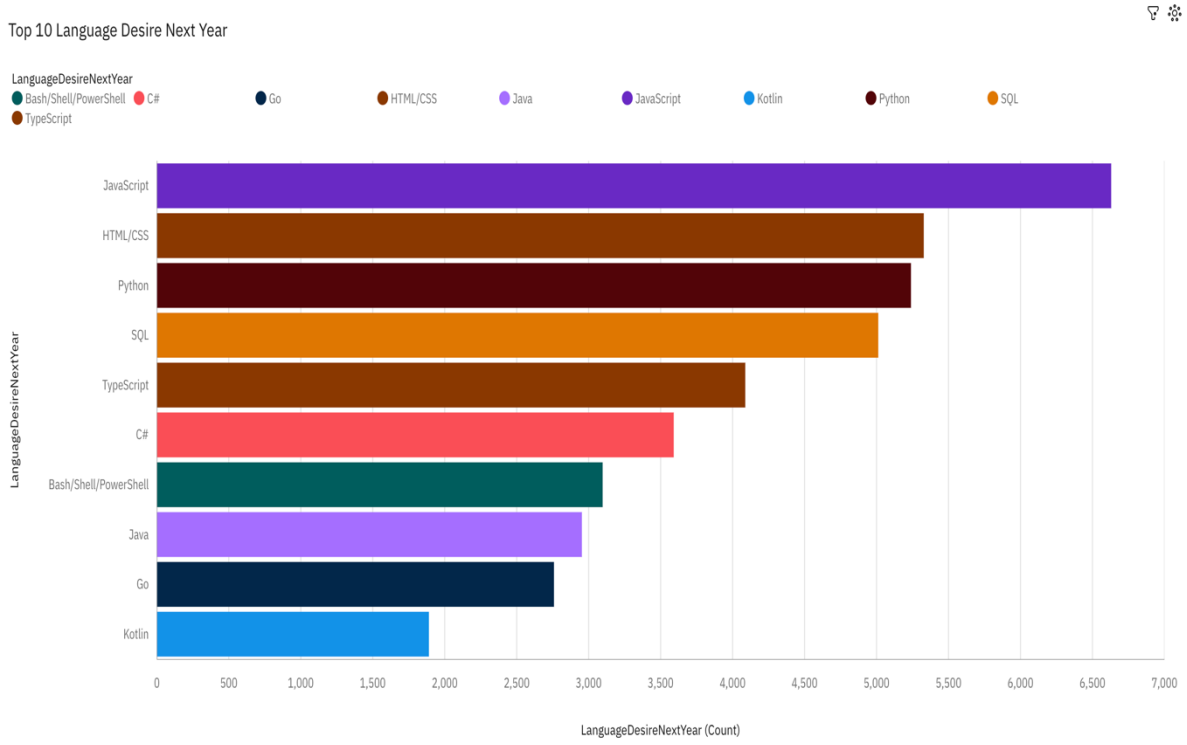
- Data Collection : Surveys
  - Web Scraping APIs.
  - Request library.
- Data Cleaning and preprocessing
- Exploratory data : to uncover patterns, trends, and relationships that provide a deeper understanding of data.
- Data Visualization : illustrating key trends and making complex data more accessible.
- Dashboards

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

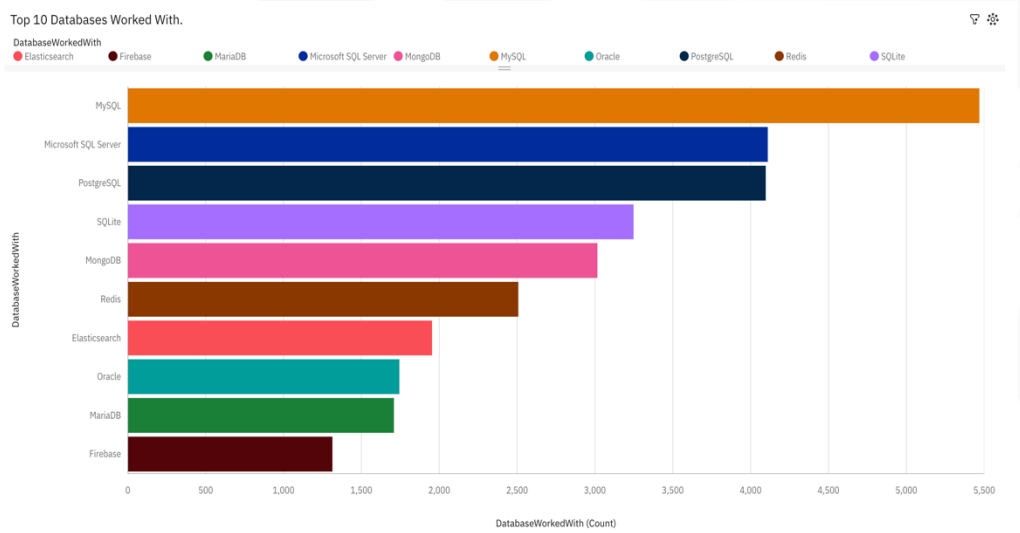
- JavaScript continues to be the top programming language.
- Popularity of Python growing significantly.
- Html and CSS continues to be the second most popular language.

Implications

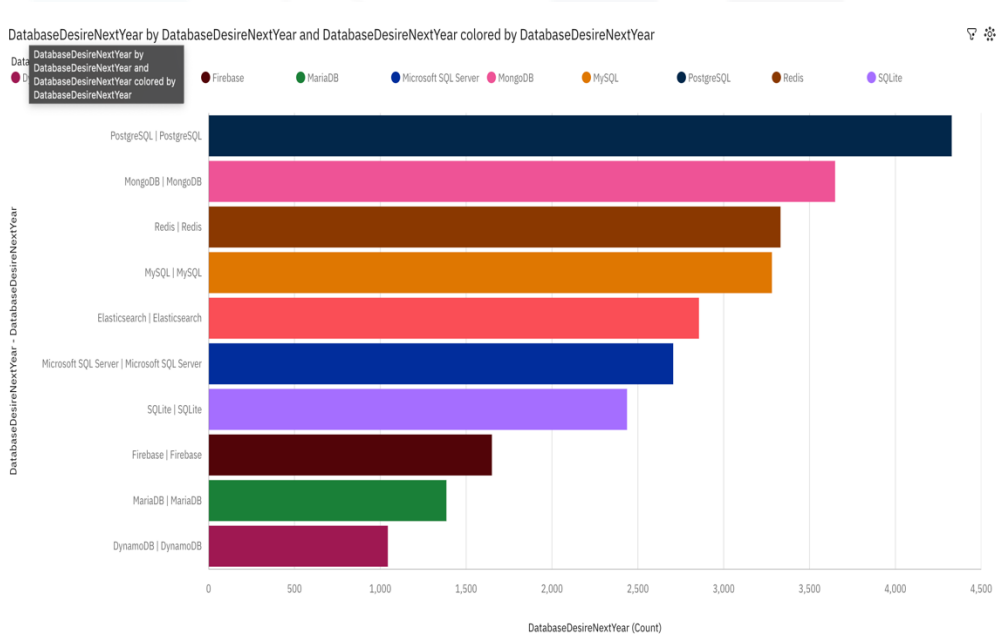
- **JavaScript's Dominance in Web Development**: JavaScript's position as the top programming language
- The significant growth in Python's popularity suggests increasing demand in areas beyond web development, such as data science, artificial intelligence (AI), and automation.
- **Sustained Relevance of HTML and CSS**: The continued popularity of HTML and CSS as the second most-used technologies underscores their foundational role in web development.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most popular database for the current year.
- Microsoft Sql server and postgre sql are the second most popular databases.

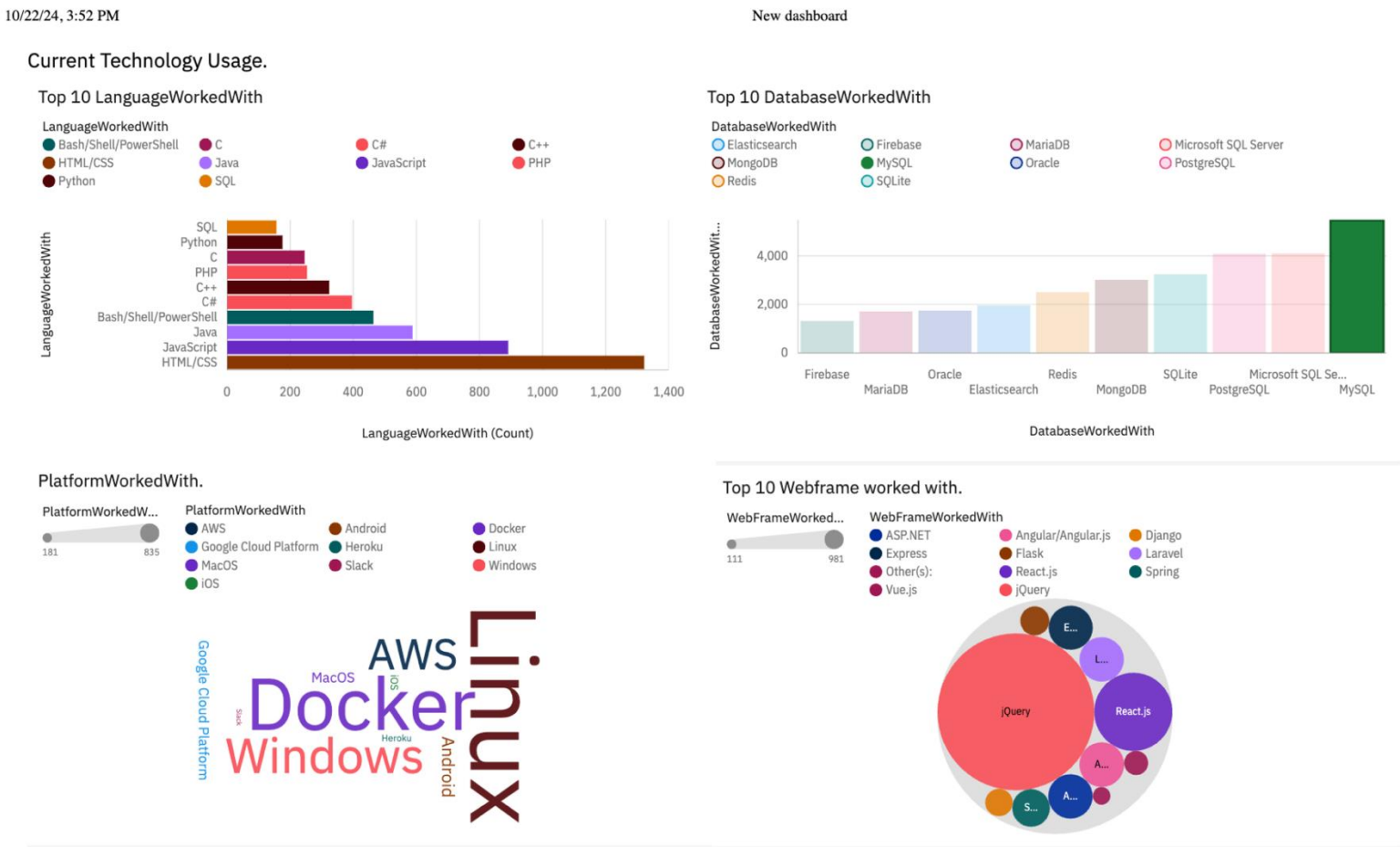
Implications

- Postgresql and MongoDb will takeover the first and second popular databases.
- Popularity of Mysql and Microsoft Sql server will decline.

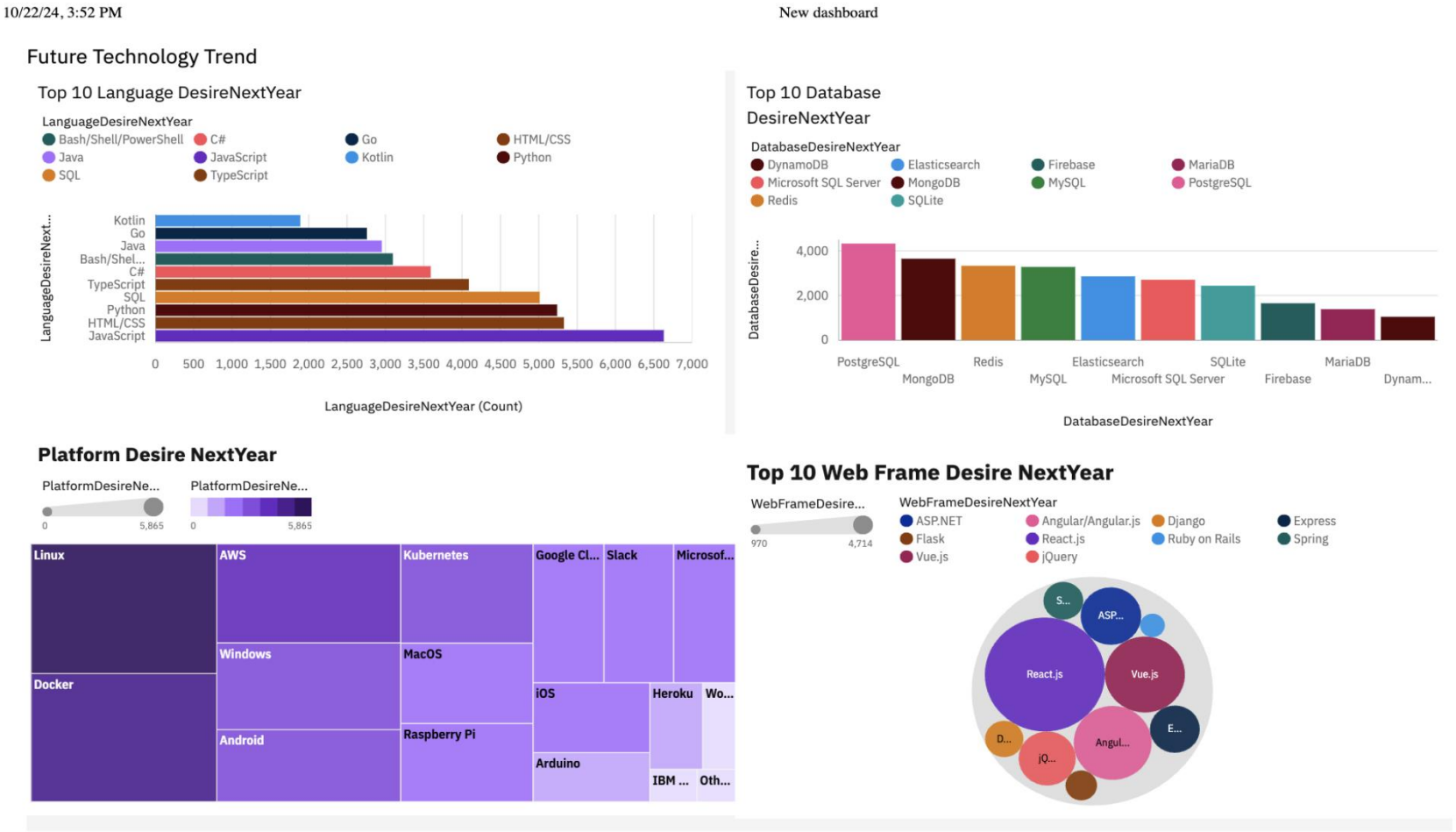
DASHBOARD

https://github.com/Sonupanickeralex/IBM-Capstone-final-project/blob/92df62984afce676885aceb892b67db116ef903c/_New dashboard.pdf

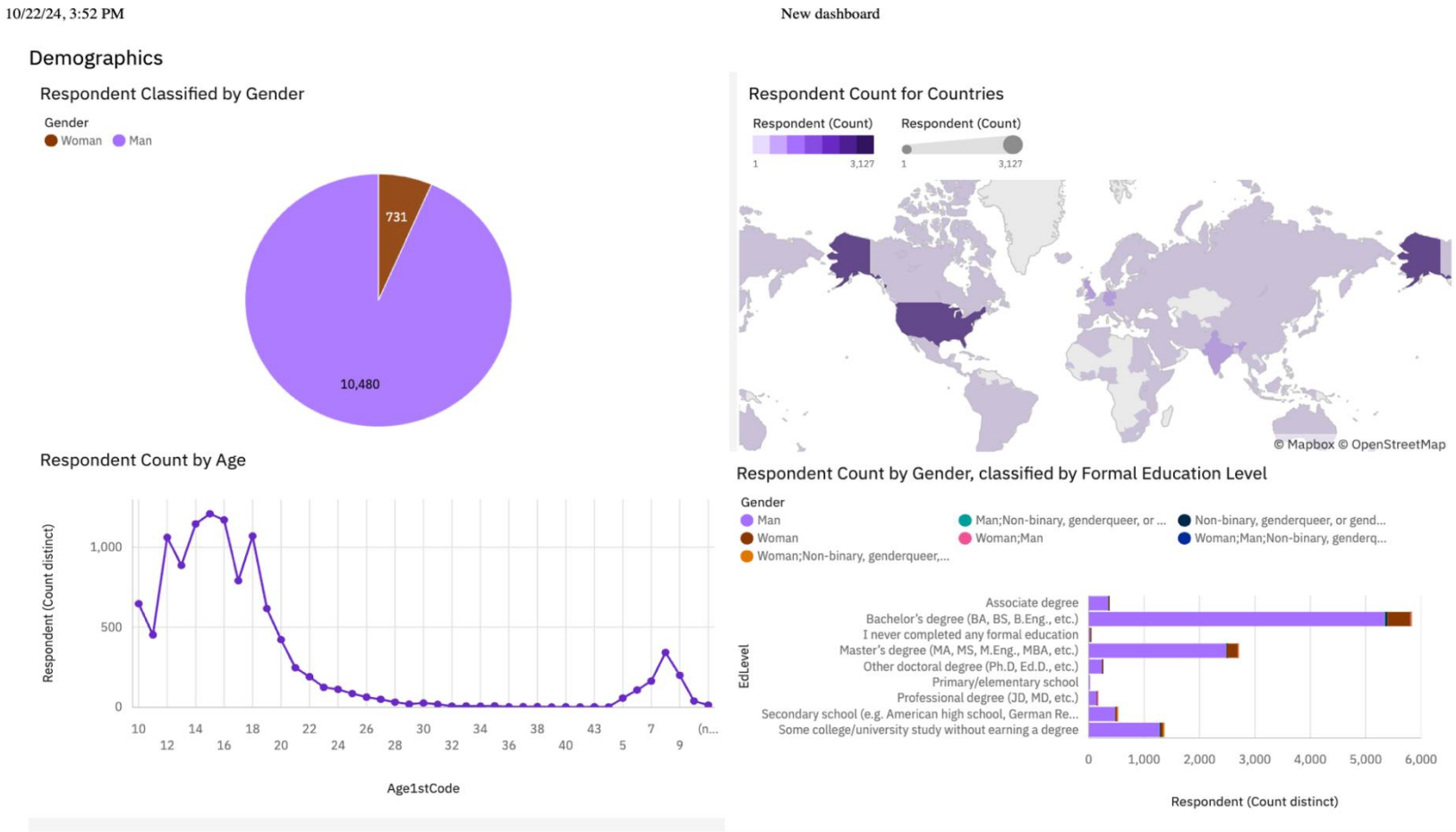
DASHBOARD Current Technology



DASHBOARD Future Technology



DASHBOARD TAB 3



DISCUSSION

Qn. How do the trends observed in the Stack Overflow Developer Survey, such as the growing popularity of Python and the shift towards open-source databases like PostgreSQL and MongoDB, reflect the evolving demands and priorities in the software development industry?

Ans. These trends reveal a dynamic software development landscape that emphasizes adaptability, efficiency, and a focus on data-centric technologies, shaping the future of the industry.

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript continues to be the top programming language.
- Postgresql and MongoDb will takeover the first and second popular databases.
- Popularity of Python growing significantly.

Implications

- **JavaScript's Dominance in Web Development**: JavaScript's position as the top programming language
- The significant growth in Python's popularity suggests increasing demand in areas beyond web development, such as data science, artificial intelligence (AI), and automation.

CONCLUSION

- JavaScript remains the top programming language, emphasizing its continued importance in web and application development.
- PostgreSQL and MongoDB are set to become the first and second most popular databases, reflecting a shift towards open-source, flexible, and scalable solutions.
- Python's significant growth highlights its expanding use in fields like data science, AI, and automation, indicating its versatility beyond web development.
- The popularity of MySQL and Microsoft SQL Server is declining, while HTML and CSS continue to hold their position as essential technologies for web design and development.

APPENDIX

Top 10 Platforms Current Year and Next Year