

Identifying Emerging Programming Skills

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Executive Summary

- In this project, we will leverage the Kaggle 2023 survey data to develop a comprehensive dashboard that highlights both current technology usage and future technology trends.
- It will be organized into three main categories: Current Technology Usage, Future Technology Trends, and Demographics.
- This dashboard will enable stakeholders to gain valuable insights into current and future technology trends, as well as the demographics of the respondents.
- The visualizations will help in understanding which technologies are widely adopted, which ones are gaining traction, and how different demographic groups are positioned in the technology landscape.

Introduction

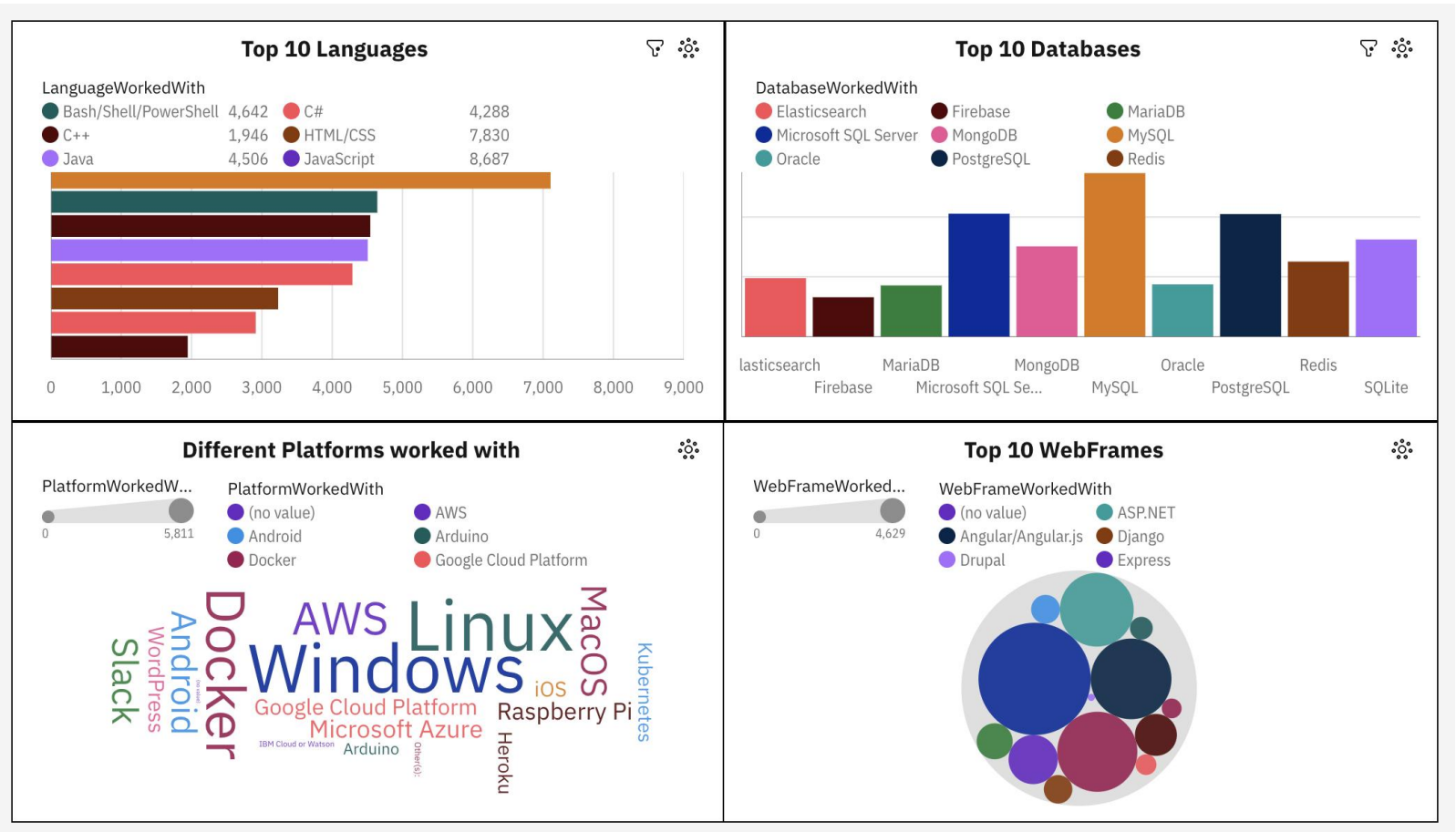
- **Nature of the Problem:** The technology landscape is constantly evolving, making it essential for professionals and organizations to stay updated on the most in-demand programming skills.
- **State of the Problem :** With the rapid pace of change in the tech industry, identifying the top programming languages, database skills, and popular IDEs is crucial for maintaining a competitive edge.
- **Questions for Analysis:**
 - What are the top programming languages currently in demand?
 - Which database skills are most sought after?
 - What are the most popular Integrated Development Environments (IDEs)?

Methodology

- Data was collected from various sources including job postings, training portals, and surveys through web scraping and API access.
- After preparing the data using data wrangling techniques, statistical analysis was applied to uncover trends and insights.
- The trends and insights are then visualized using IBM Cognos Analytics to create a comprehensive dashboard.

Current Technology Usage

Results



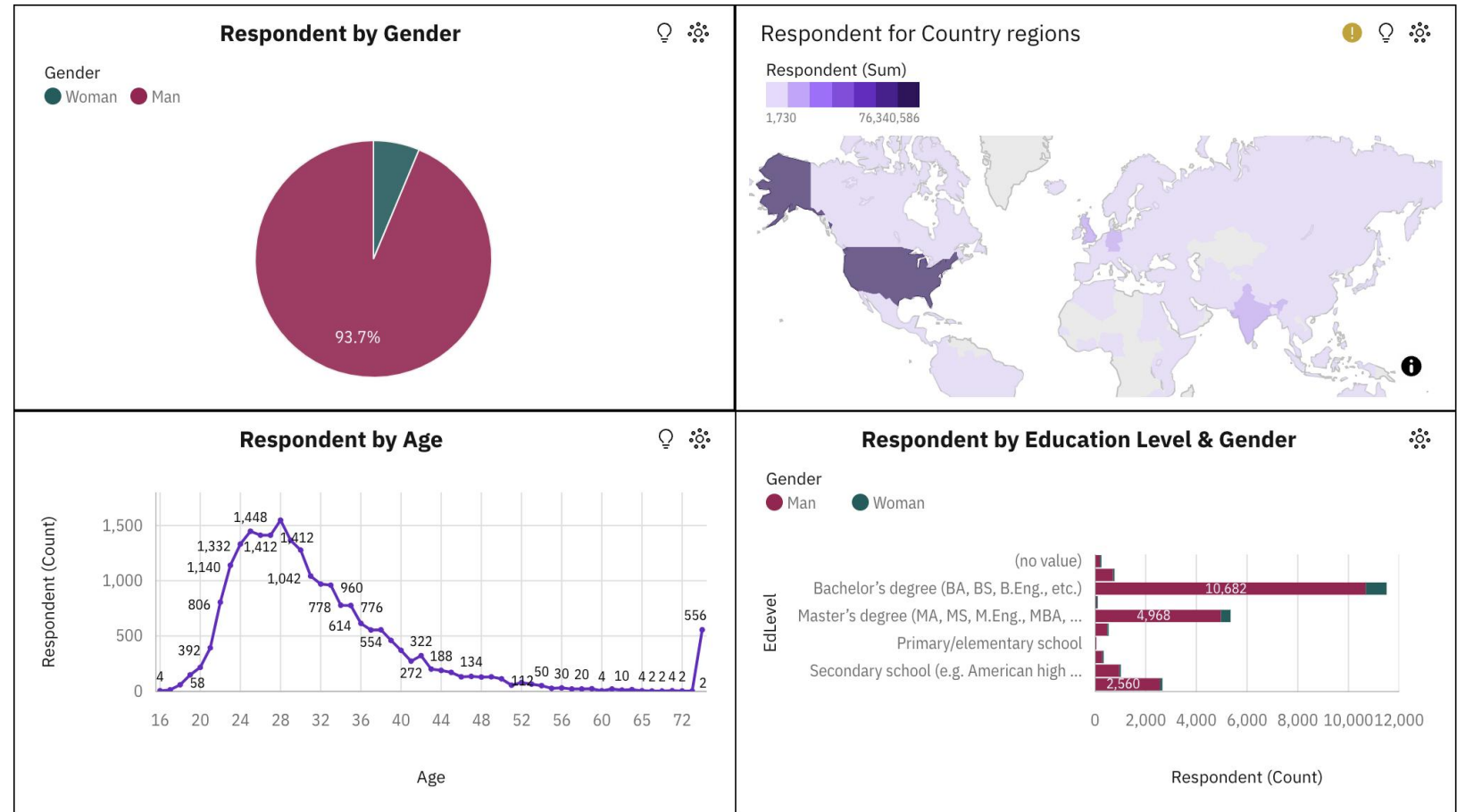
Future Technology Trend

Results



Results

Demographics



Findings

- The majority of the tech field are
- over 24 and under 40 years old.
- Most of the respondents want to
- use the platform Linux and the
- web frame React JS
- Most of the respondents are
- from USA

Implications

- Data professionals will need to learn NoSQL databases, as their usage will increase next year.
- Less developed countries need• more investments in tech education

Conclusion

- Top languages have not remained on top for the desired languages.
- Same goes with web frames and databases.
- Many trends can be identified from the dashboards.