Survey analysis

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EXECUTIVE SUMMARY

- Explorations of trends
  - Programming Languages
  - Databases
- Demographics of the respondents

INTRODUCTION

The report aims to provide data-driven insights into emerging and future skill requirements in the IT and business consulting industry. By identifying trends in programming languages, frameworks, and tools, the report seeks to guide strategic decision-making in workforce planning, training, and development. Its ultimate goal is to ensure the organization remains competitive in the rapidly evolving technology landscape

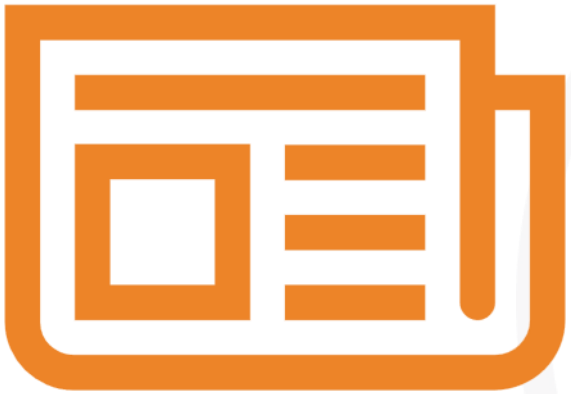
Target Audience

- Internal Stakeholders:
  - Executive Leadership
  - HR and Talent Acquisition Teams
  - Training and Development Teams
  - Project Managers and Team Leads
- External Stakeholders

Value

- Strategic Workforce Planning
- Enhanced Competitive Edge
- Cost Optimization
- Client Advisory Services:
- Improved Employee Retention and Morale

METHODOLOGY



Sources

- Job postings
- Training portals
- Developer surveys, such as the latest Stack Overflow Developer Survey

Key Data Wrangling Steps

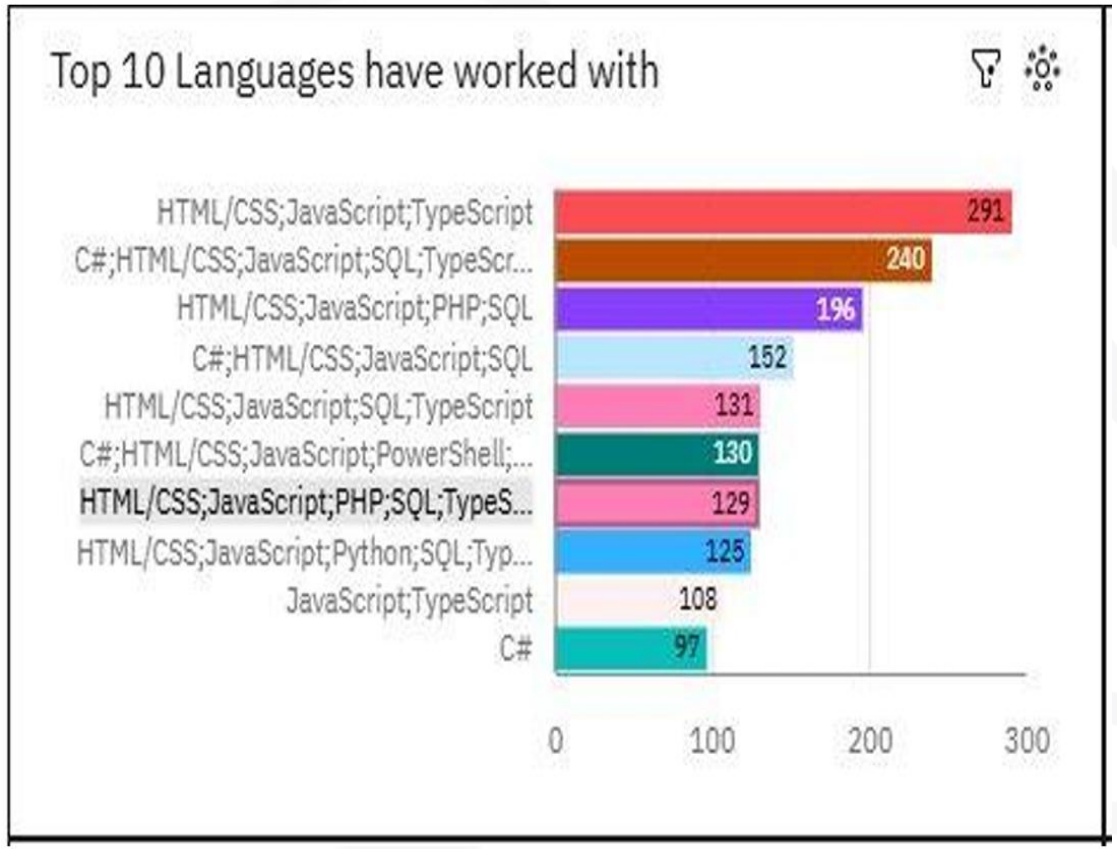
- Remove Duplicates
- Handle MissingValues
- StandardizeFormats

Data Collection Methods

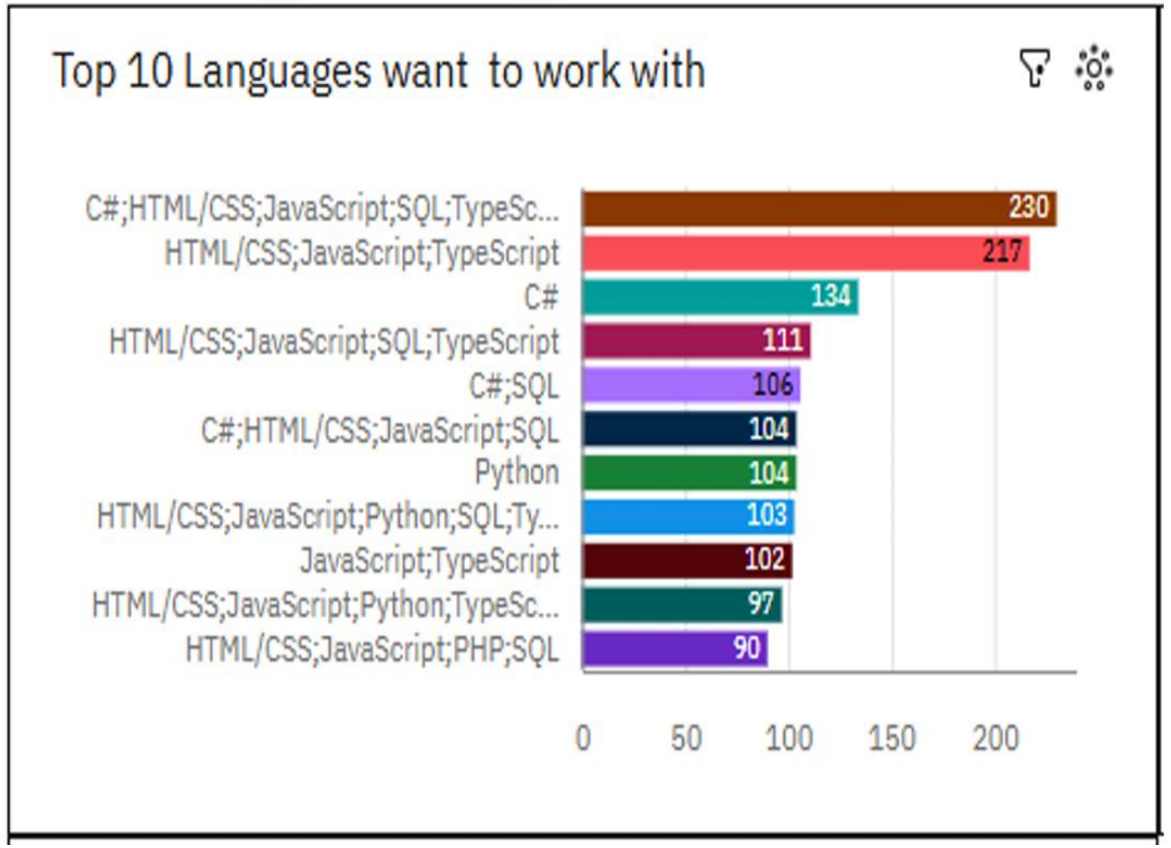
- Web Scraping
- API Integration
- StackOverflow Developer Surve

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

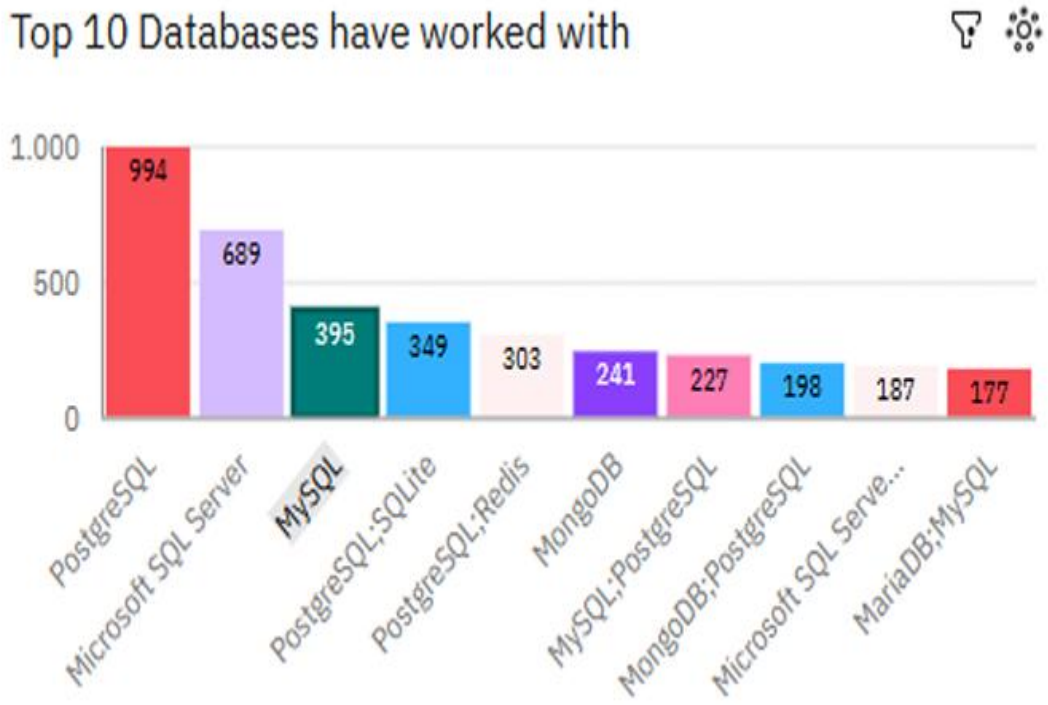
- Next year there should be a trend change in the programming language used.
- C# will reach the top positions followed by Python.
- JavaScript and SQL will remain the most widely used languages.

Implications

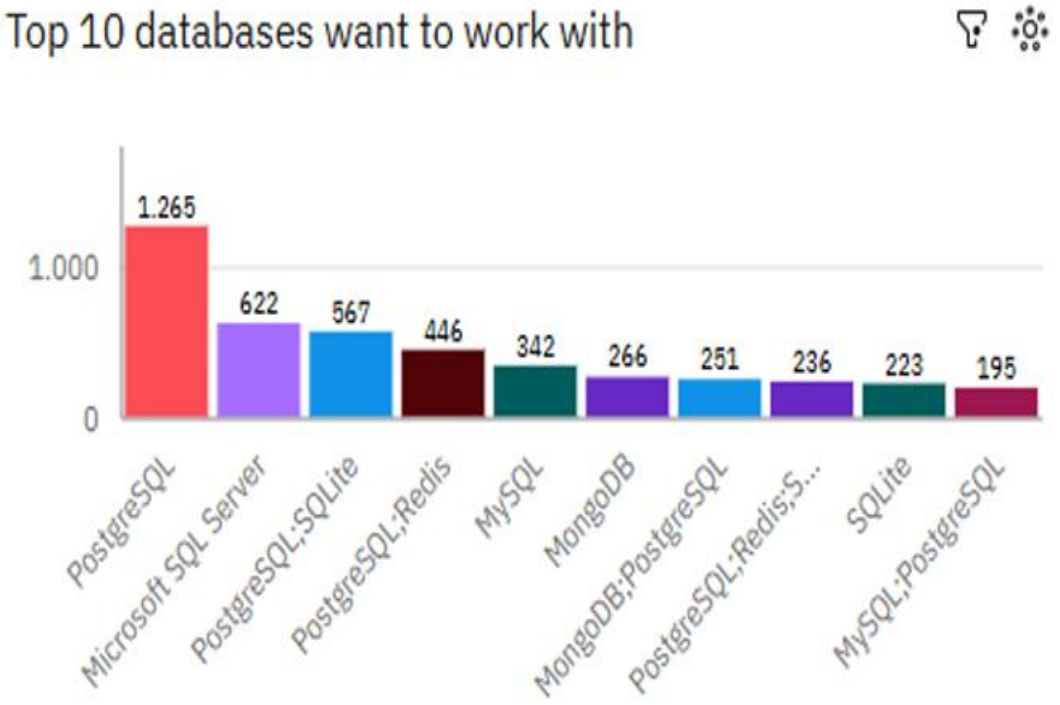
- We should emphasize teaching C# and Python while continuing to focus on JavaScript and SQL as foundational languages.
- Talent acquisition strategies should target developers with both front-end (JavaScript) and back-end (C# or Python) skills for full-stack capabilities.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL is the most widely used database, significantly ahead of others (994 mentions).
- Other databases like SQLite, PostgreSQL-Rocks, and MongoDB are also in active use, but with lower adoption compared to the top three
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Implications

- Upskilling in PostgreSQL
- Diversified Database Expertise
- Deprioritize Low-Demand Databases

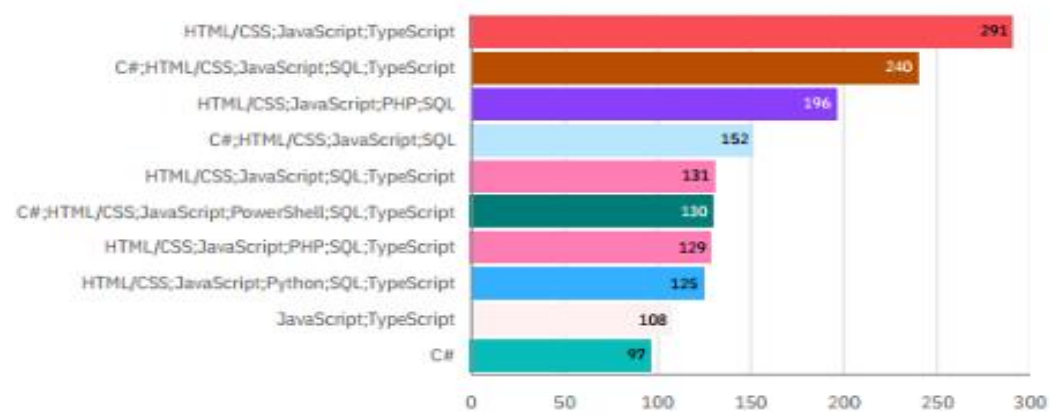
DASHBOARD

https://github.com/jamshidfarook0008

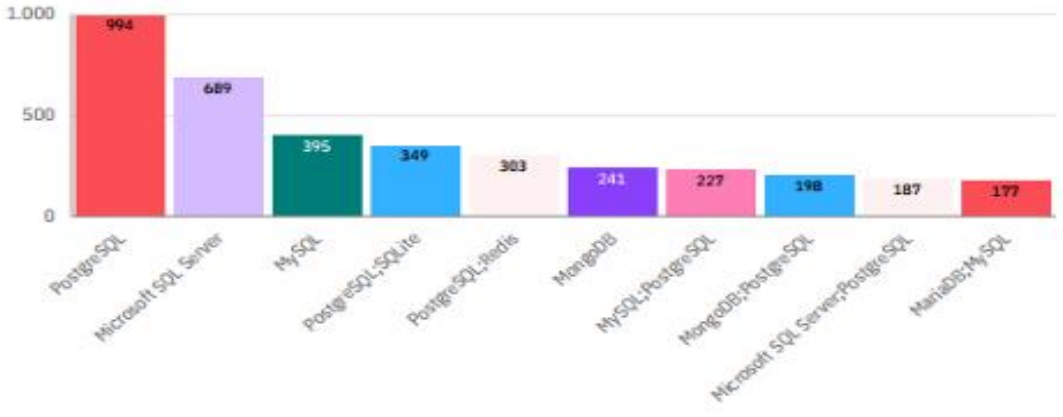
DASHBOARD TAB 1

Current Technology Usage

Top 10 Languages have worked with



Top 10 Databases have worked with

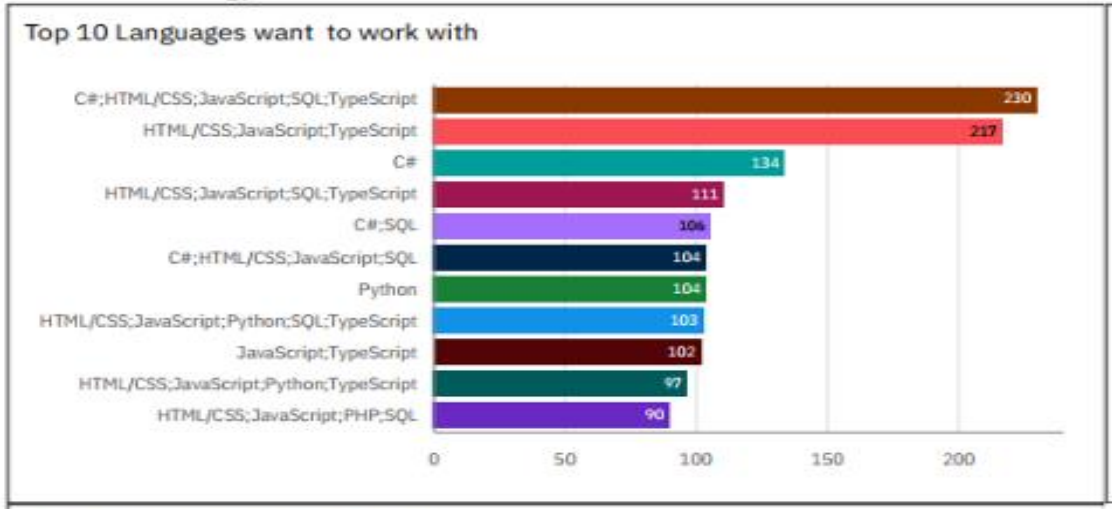


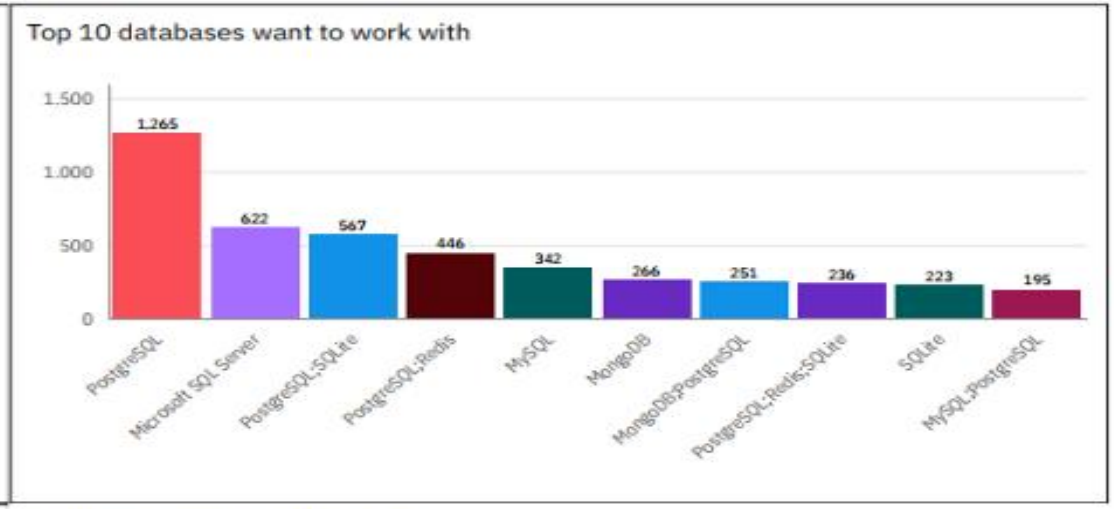
Top 10 Databases have worked with

Top 10 Webframe have work with

DASHBOARD TAB 2

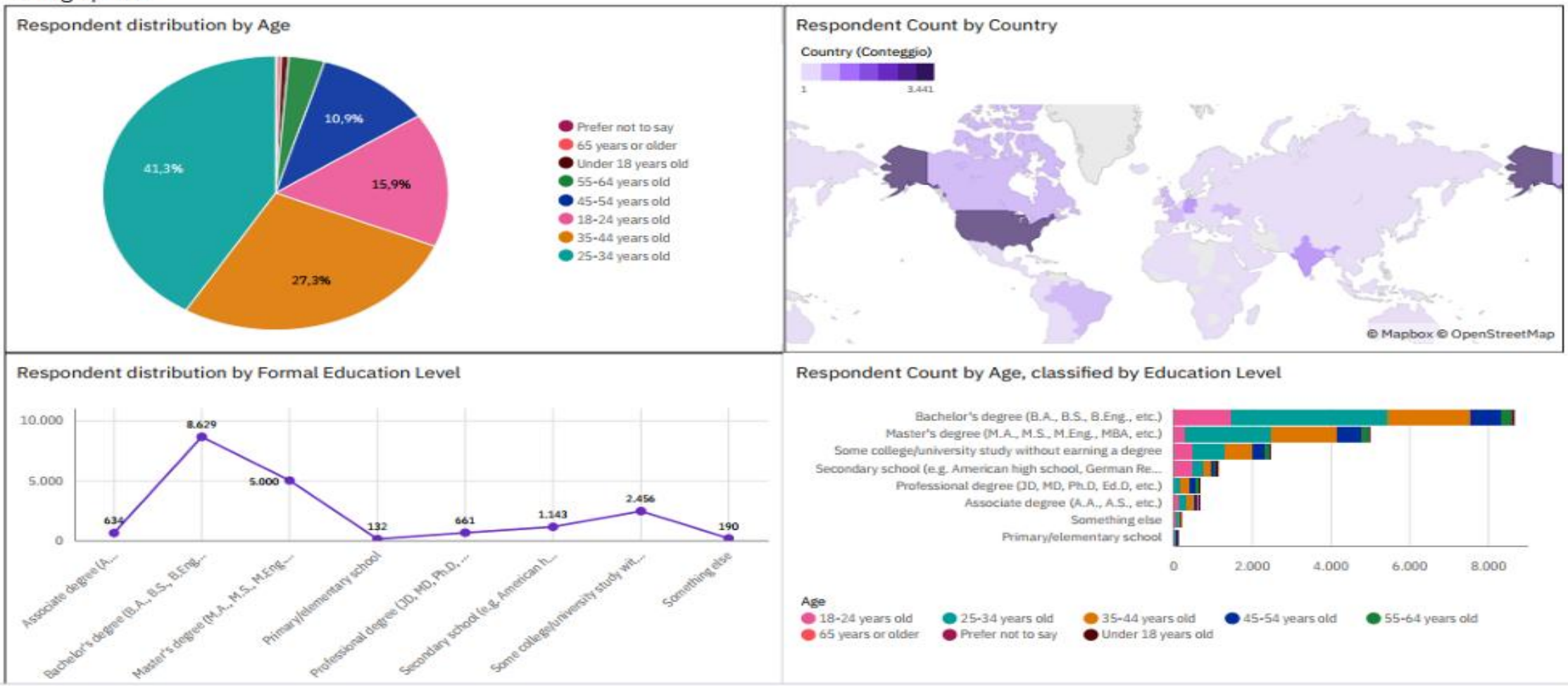
Future Technology Trend





DASHBOARD TAB 3

Demographics



CONCLUSION

- A major shift in programming languages is on the horizon, with C# projected to rise to prominence, closely followed by Python. At the same time, JavaScript and SQL will remain foundational skills due to their widespread application in web development and data management.
- These trends underscore the importance of aligning our workforce development and hiring strategies to meet the demands of future technologies while maintaining expertise in foundational languages.
- PostgreSQL is poised to dominate as the preferred database, reflecting its scalability, versatility, and increasing adoption across industries.
- To stay competitive, we must prioritize upskilling in high-demand languages and databases, invest in modern tools, and support clients with database modernization strategies.