OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion

EXECUTIVE SUMMARY

- Insights into Technology Usage and Trends

  - Analysis of current technology usage and future trends based on survey data.
  - Key insights into programming languages, databases, and platforms used.
  - Dashboard visualizations for better understanding of technology trends.
  - Findings help guide decisions for developers, organizations, and technology adopters.

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INTRODUCTION

- Purpose of the Project
  - Identify emerging skills and in-demand technology trends.
- To highlight the significance of evaluating both current and future technology trends.
- To provide an overview of the data collection and analysis methodology.
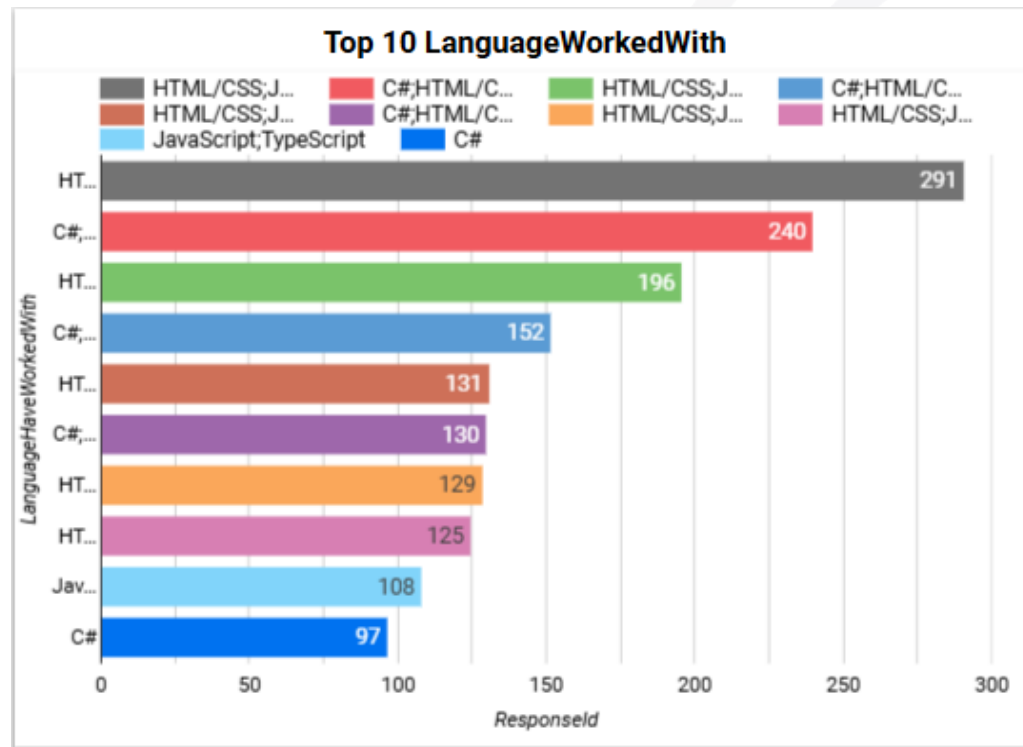
METHODOLOGY

- Data Sources
  - Survey responses from industry professionals.
- Collection Methods
  - Online survey data from various respondents.
- Wrangling Steps
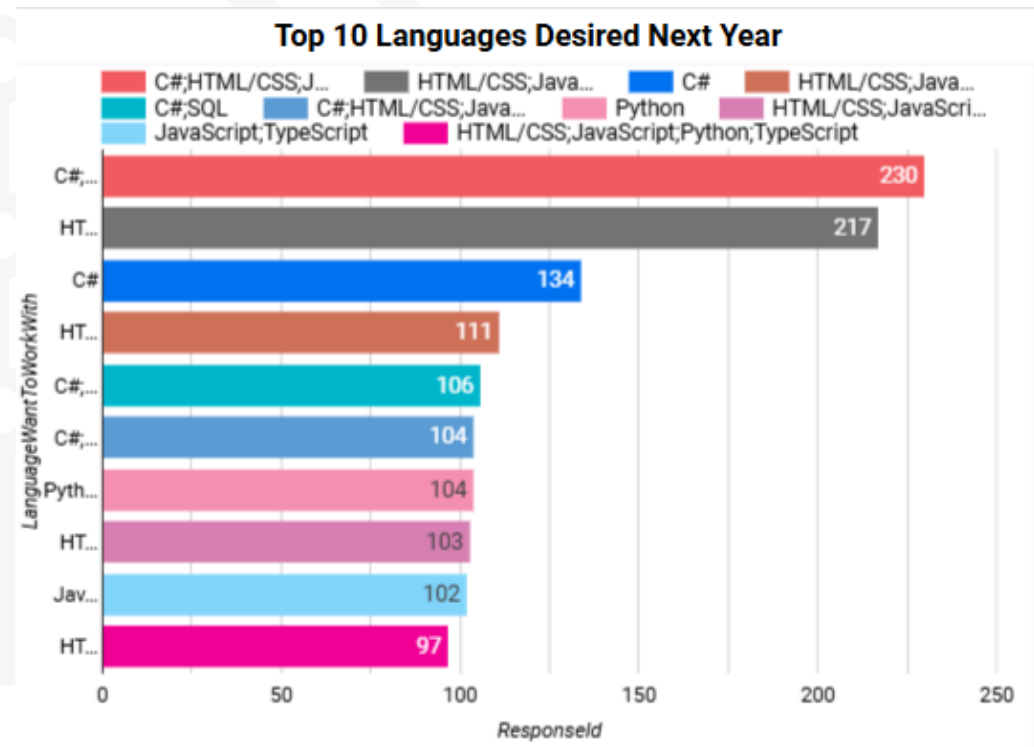 - Cleaning data, removing duplicates, and filtering null values.

PROGRAMMING LANGUAGE TRENDS

Current Year

Top 10 LanguageWorkedWith

Next Year

Top 10 Languages Desired Next Year

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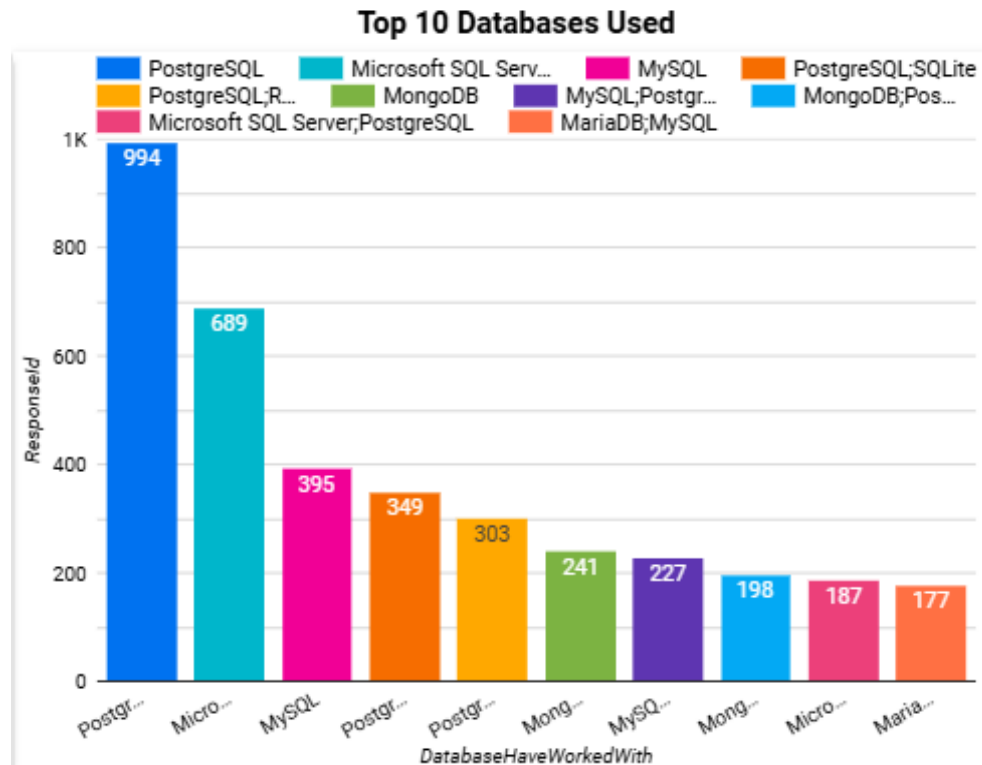# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- **HTML/CSS** remains the most widely used language, as shown in the bar chart.
- **C#,** though currently the least used, is projected to grow in popularity in the coming year.
- **JavaScript and SQL** maintain consistent usage, demonstrating their enduring relevance in the tech industry.
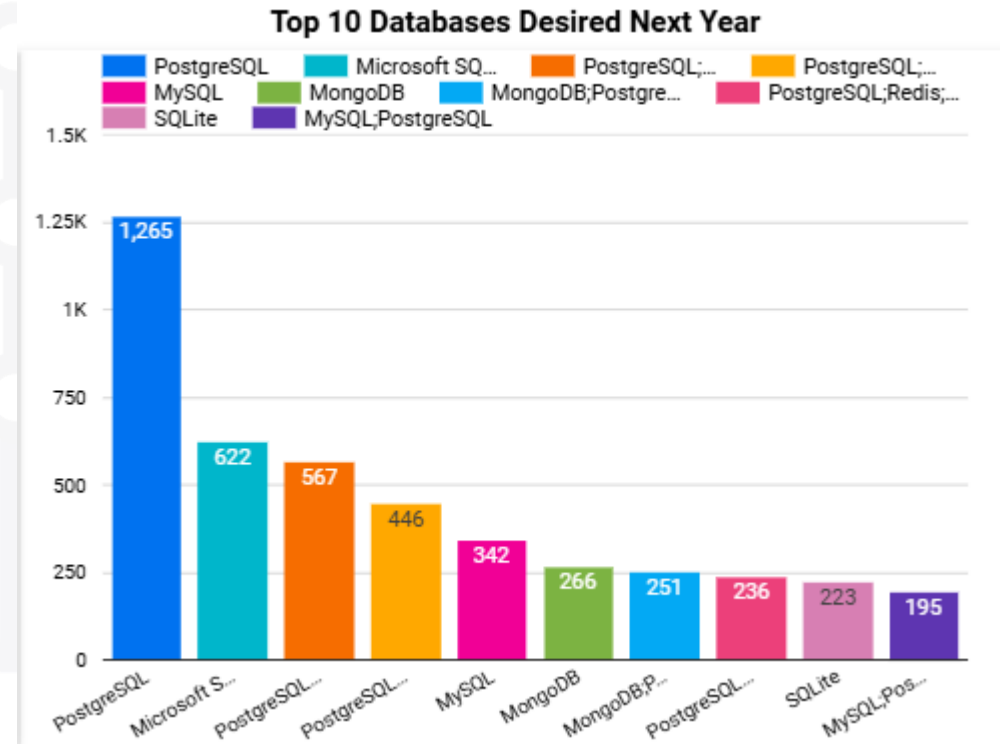
Implications

- **HTML/CSS Dominance**: Highlights the need for responsive design and user-friendly web interfaces.
- **C# Growth Potential**: Indicates growing opportunities in Unity-based game development and .NET enterprise solutions.
- **JavaScript and SQL Consistency**: Reinforces their role as core technologies for full-stack development and data-driven applications.

DATABASE TRENDS

Current Year

Next Year

Top 10 Databases Used

Legend: PostgreSQL, Microsoft SQL Serv..., MySQL, PostgreSQL;SQLite, PostgreSQL;R..., MongoDB, MySQL;Postgr..., MongoDB;Pos..., Microsoft SQL Server;PostgreSQL, MariaDB;MySQL

Values: 994, 689, 395, 349, 303, 241, 227, 198, 187, 177

Y-axis: ResponseId
X-axis: DatabaseHaveWorkedWith

Top 10 Databases Desired Next Year

Legend: PostgreSQL, Microsoft SQ..., PostgreSQL;..., PostgreSQL;..., MySQL, MongoDB, MongoDB;Postgre..., PostgreSQL;Redis;..., SQLite, MySQL;PostgreSQL

Values: 1,265, 622, 567, 446, 342, 266, 251, 236, 223, 195

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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Increasing Preference for SQLite Over MySQL
- Sustained Reliance on PostgreSQL and Microsoft SQL Server
- Growing Adoption of Redis and MongoDB

Implications

- Businesses should consider SQLite for applications requiring minimal setup and local data storage.
- Organizations should invest in optimizing PostgreSQL and SQL Server for scalability and high-performance applications.
- Companies should leverage Redis and MongoDB for caching, real-time analytics, and scalable data storage solutions.

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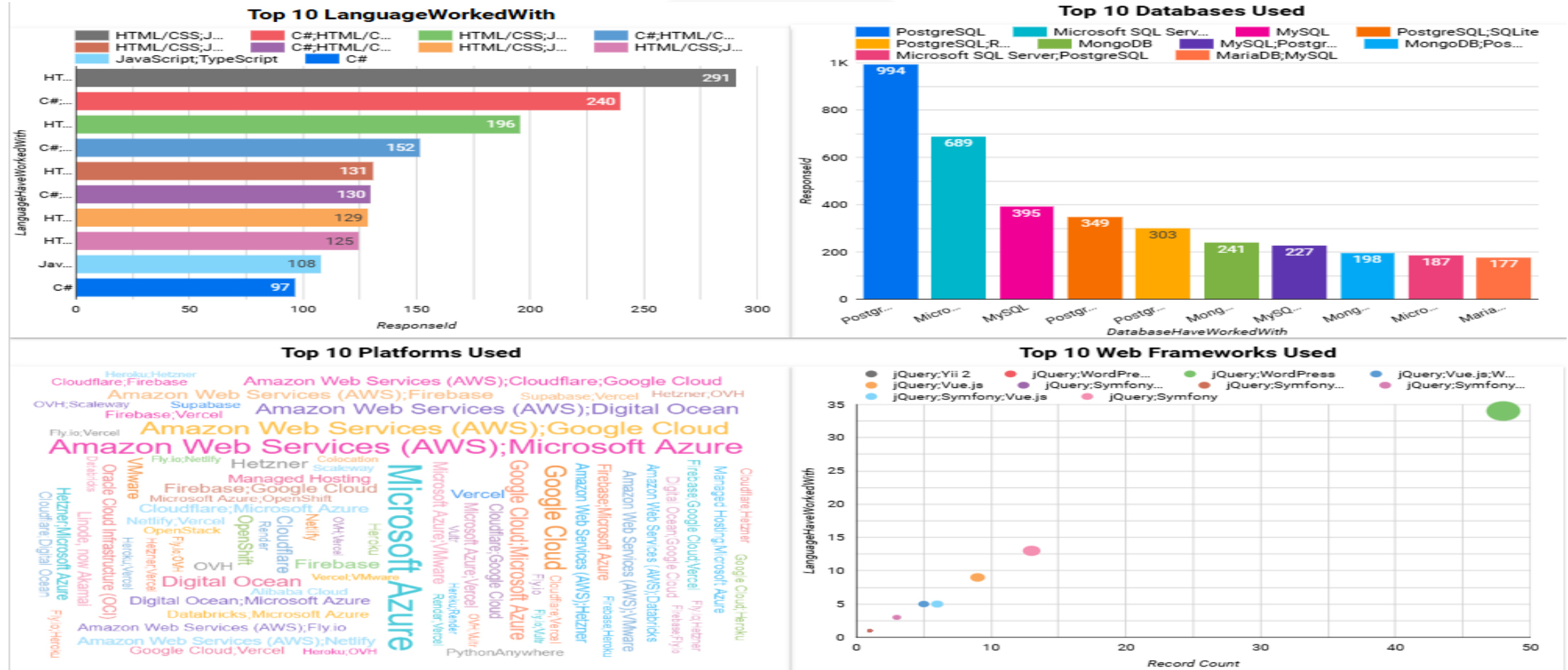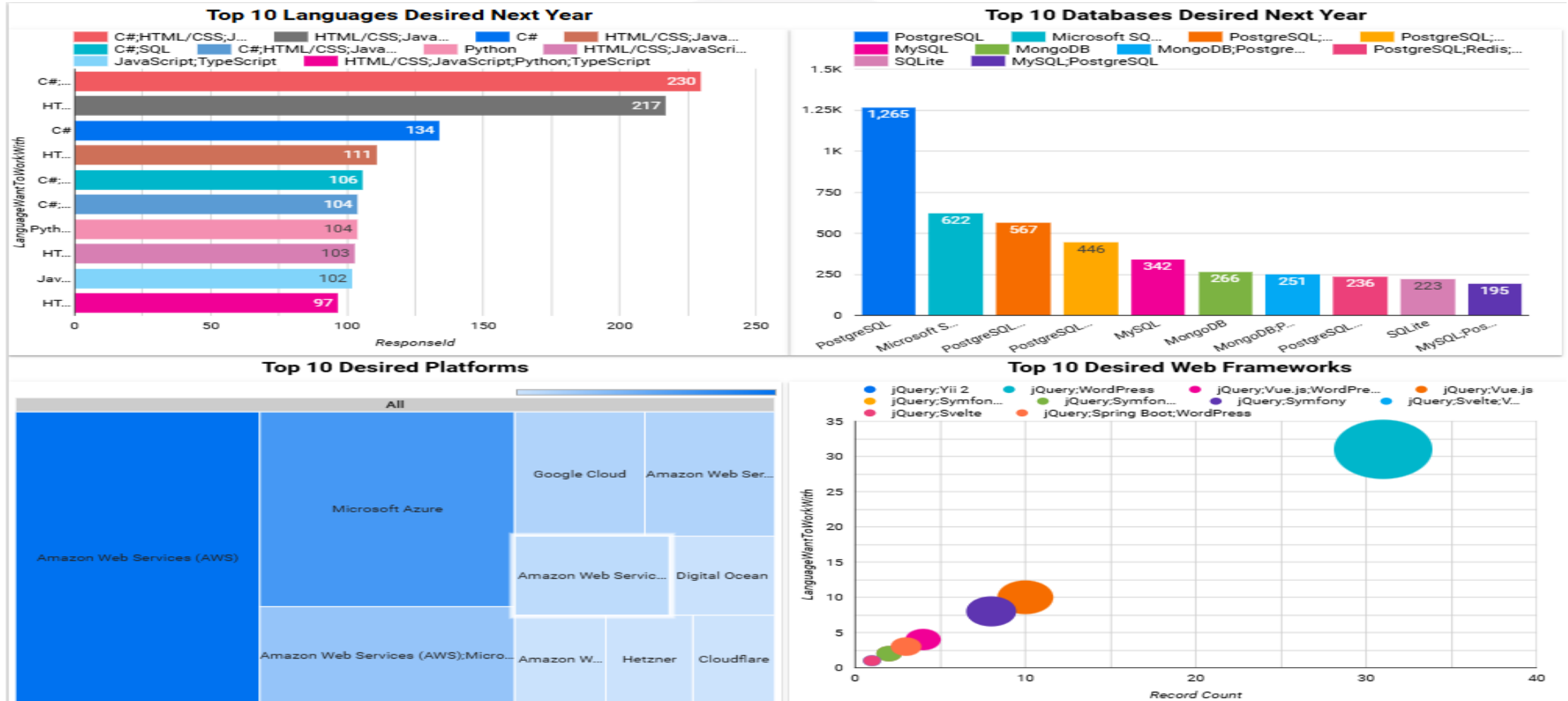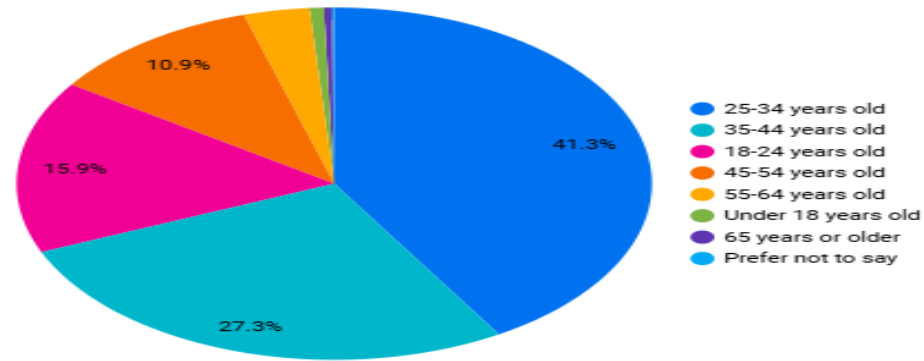
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DASHBOARD

https://lookerstudio.google.com/s/v2P8NzhJcoY

DASHBOARD TAB 1

Top 10 LanguageWorkedWith

Top 10 Databases Used

Top 10 Platforms Used

Top 10 Web Frameworks Used

DASHBOARD TAB 2

DASHBOARD TAB 3

Respondents by Age

- 25-34 years old — 41.3%
- 35-44 years old — 27.3%
- 18-24 years old — 15.9%
- 45-54 years old — 10.9%
- 55-64 years old
- Under 18 years old
- 65 years or older
- Prefer not to say

Respondent Count by Country

ResponseId: 1 — 3,441

Respondent Distribution by Education Level

- ResponseId
- EdLevel

EdLevel	Value
Bache...	8,629
Maste...	5,000
Some...	2,456
Secon...	1,143
Profes...	661
Assoc...	634
Somet...	190
Primar...	132
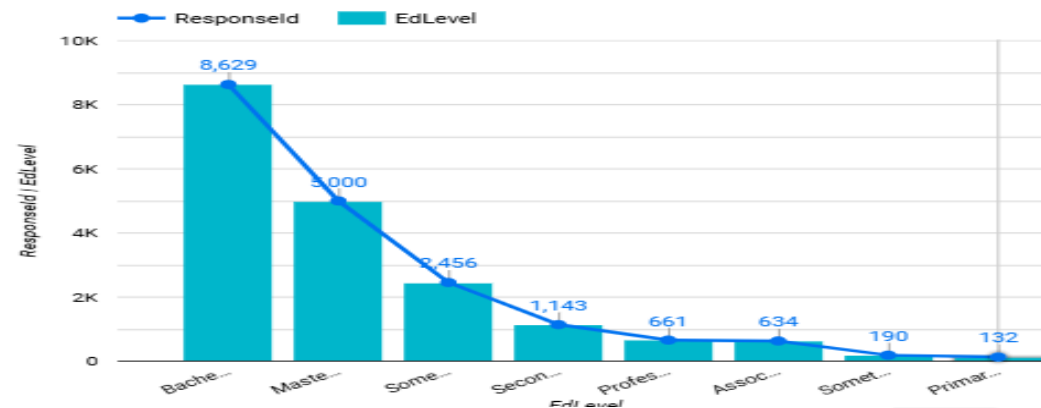
Respondent Count by Age, Classified by Education Level

- Bachelor's d...
- Master's deg...
- Some colleg...
- Secondary s...
- Professional...
- Associate de...
- Something el...
- Primary/ele...

Age	Bachelor's	Master's	Some college
25-34 years old	3,985	2,178	843
18-24 years old	2,115	1,685	665
18-24 years old	1,468	496	495
55-64 years old	783	616	
65 years or ol...	31		
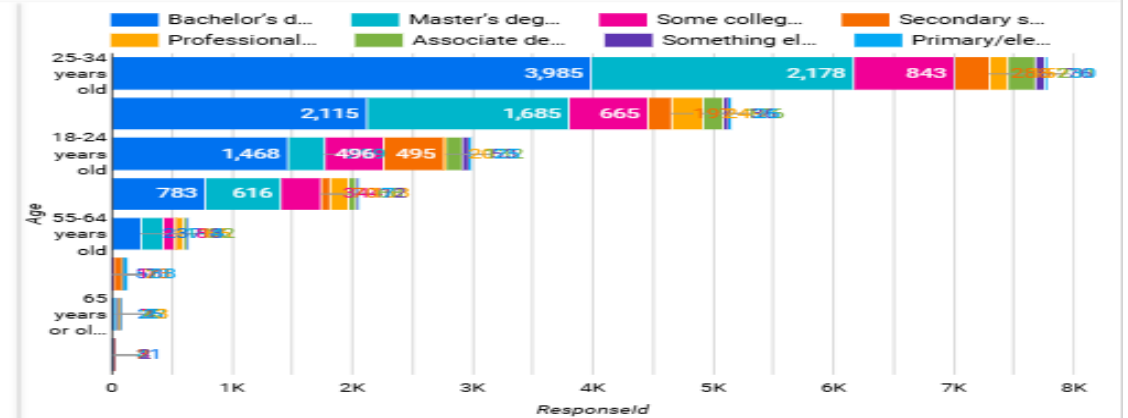
DISCUSSION

- Embracing Modern Technologies
- Enhancing Database Scalability and Cloud Adoption
- Prioritizing Web Development and Security

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OVERALL FINDINGS & IMPLICATIONS

Findings

- Languages such as JavaScript, C#, PostgreSQL are extensively utilized and are anticipated to see continued growth in demand.

- The use of PostgreSQL and Microsoft SQL Server is on the rise, particularly for real-time data handling and cloud-based solutions.

- Core web technologies, including HTML/CSS, JavaScript, and frameworks such as , jQuery remain fundamental, while concerns around data security continue to rise.

Implications

- Businesses should prioritize skill development and training in these technologies to maintain a competitive edge.

- Companies should adopt scalable database architectures and integrate cloud platforms like AWS and Google Cloud to improve efficiency.

- Organizations must invest in web development proficiency and strengthen security protocols to safeguard sensitive information.
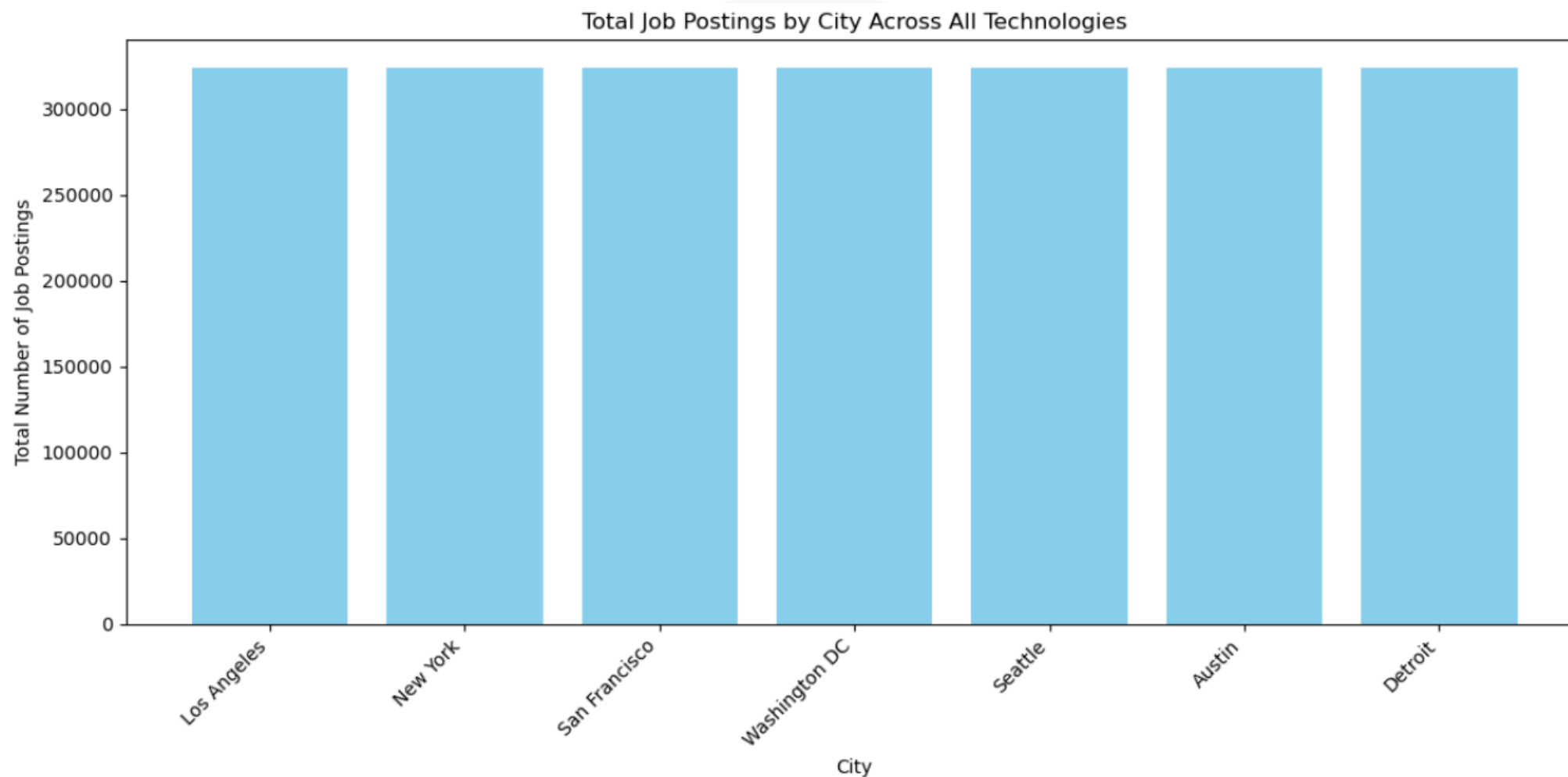
CONCLUSION

- Clear trends in programming languages and databases.

- Importance of continuous learning to stay relevant in the industry.

- Businesses should adapt to emerging technologies for competitive advantage.

JOB POSTINGS

Total Job Postings by City Across All Technologies

POPULAR LANGUAGES

Average Annual Salary by Programming Language