SURVEY DATA TECHNOLOGY USAGE

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3 SEPTEMBER 2024

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EXECUTIVE SUMMARY

- This report highlights key trends in technology usage based on a recent survey of developers.

- JavaScript and HTML/CSS are the most commonly used.

- Python and SQL are also widely adopted, crucial for data science and database management.

- MySQL and PostgreSQL are the top databases.

- MongoDB and Redis are popular for NoSQL solutions.

- Linux and Docker lead in development and deployment.

- AWS and Windows remain significant in cloud computing and traditional environments.

- React.js and Vue.js are the most favored frameworks.

- Angular/Angular.js continues to have a strong user base.

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INTRODUCTION

- Purpose: To analyze current technology usage and preferences among developers, providing insights into the most popular tools, languages, and platforms.

- Scope: The survey covers a wide range of technologies, including programming languages, databases, platforms, and web frameworks.

- Respondents: The data is based on responses from a diverse group of developers across different regions and backgrounds.

- Relevance: The findings are intended to help businesses, educators, and developers make informed decisions about technology adoption and skill development.

- Focus: Emphasis is placed on identifying the leading technologies currently in use and those that developers desire to work with in the future.

METHODOLOGY

- Survey Design: A structured questionnaire was developed to capture information on technology usage, preferences, and demographics of the respondents.

- Data Collection: The survey was distributed online, targeting a broad audience of developers from various regions and industries.

- Sample Size: A significant number of respondents participated, ensuring a comprehensive representation of the developer community.

- Data Analysis: Responses were aggregated and analyzed to identify trends, with a focus on the most commonly used and desired technologies.

- Tools Used: Data analysis was conducted using Google Looker Studio to ensure accuracy and reliability of the findings.

- Reporting: The results were summarized in key categories, such as programming languages, databases, platforms, and web frameworks, to provide clear and actionable insights.

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RESULTS

Programming Languages:

- JavaScript (including HTML/CSS) emerged as the most widely used programming language.

- Python and SQL followed closely, highlighting their critical roles in data science and database management.

Database Technologies:

- MySQL and PostgreSQL are the most frequently used databases, dominating in both relational and open-source categories.

- MongoDB and Redis showed strong adoption, particularly in projects requiring flexible, NoSQL database solutions.

Platforms:

- Linux and Docker are the leading platforms for development, reflecting a shift towards open-source and containerized environments.

- AWS continues to be a popular choice for cloud computing, while Windows remains relevant for many developers.

Web Frameworks:

- React.js and Vue.js are the top web frameworks, indicating a preference for modern, component-based development.

- Angular/Angular.js retains a significant user base, despite the growing popularity of newer frameworks.
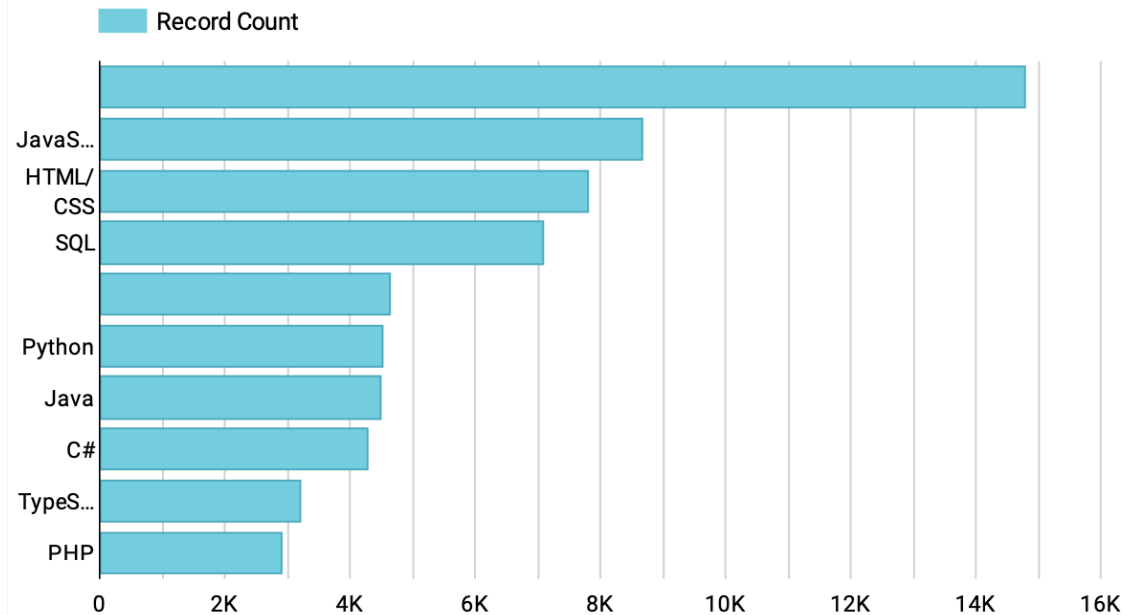
Demographics:

- The majority of respondents are male, with a smaller representation of women and non-binary individuals.

- Most respondents hold a bachelor's or master's degree, indicating a well-educated developer community
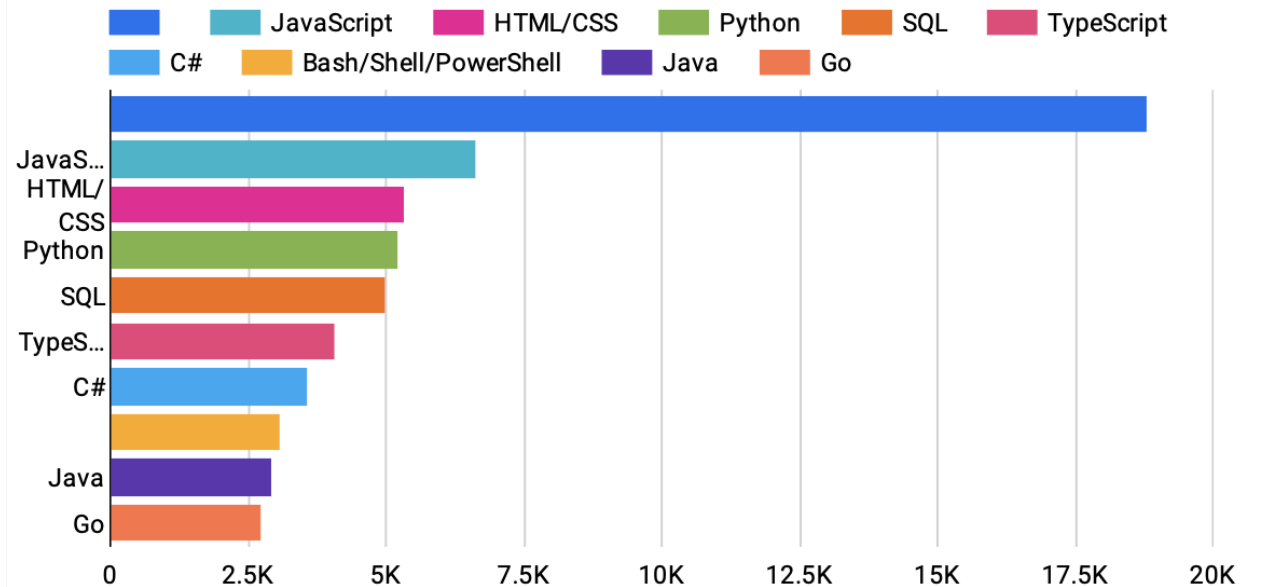
PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year

Top 10 Language Worked With

Top 10 Language Desire Next Year

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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Current Year: JavaScript, HTML/CSS, and Python are the top languages, reflecting their dominance in web development and data tasks.

- Next Year: JavaScript and Python remain in high demand, with rising interest in TypeScript and Go.
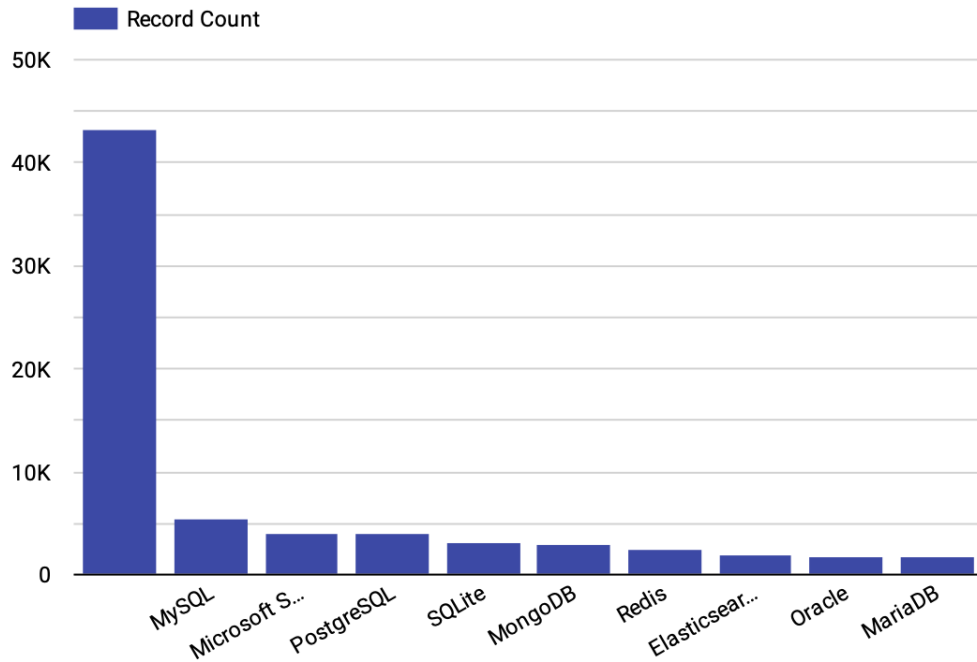
Implications

- Businesses: Continue investing in JavaScript and Python while considering TypeScript for better scalability.

- Developers: Focus on mastering JavaScript and Python, and explore TypeScript and Go for future opportunities.

- Educational Institutions: Prioritize teaching JavaScript, Python, and TypeScript, with Go as an advanced option.
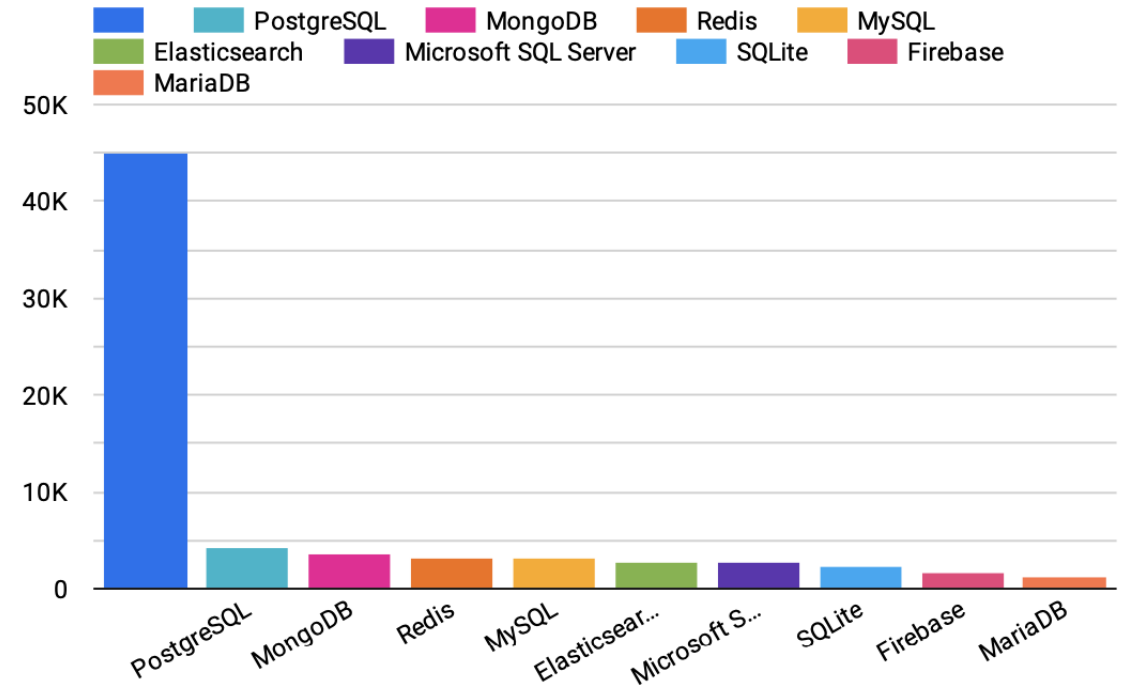
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DATABASE TRENDS

Current Year

Top 10 Database Worked With

Next Year

Top 10 Database Desire Next Year.

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Current Year: MySQL leads database usage, followed by Microsoft SQL Server and PostgreSQL.
- Year: PostgreSQL is the most desired database, with growing interest in MongoDB and Redis.
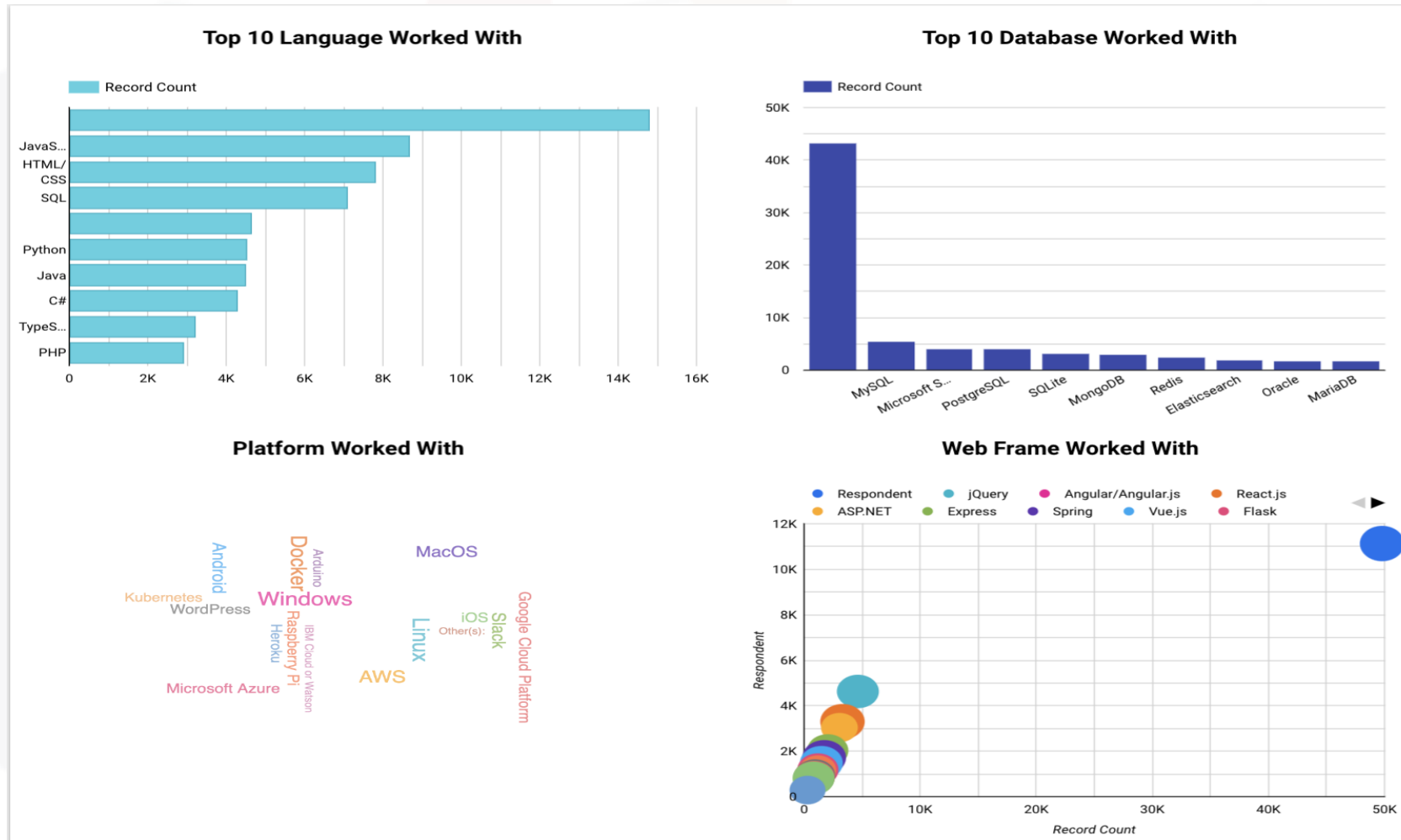
Implications

- Businesses: Invest in PostgreSQL expertise as its popularity grows, while maintaining MySQL skills.
- Developers: Enhance PostgreSQL knowledge and gain experience with NoSQL databases like MongoDB and Redis.
- Educational Institutions: Prioritize teaching PostgreSQL and NoSQL databases to align with future industry needs.

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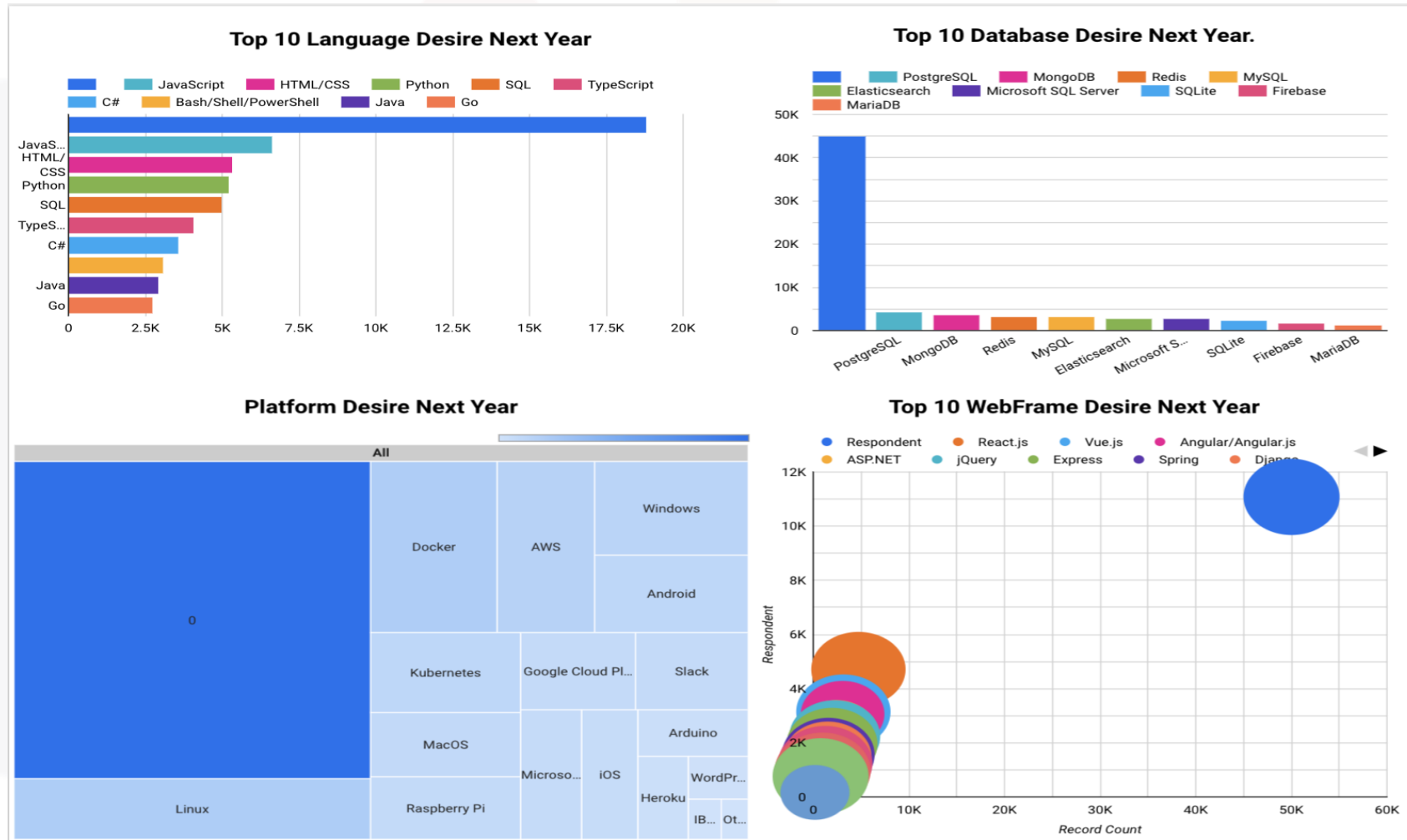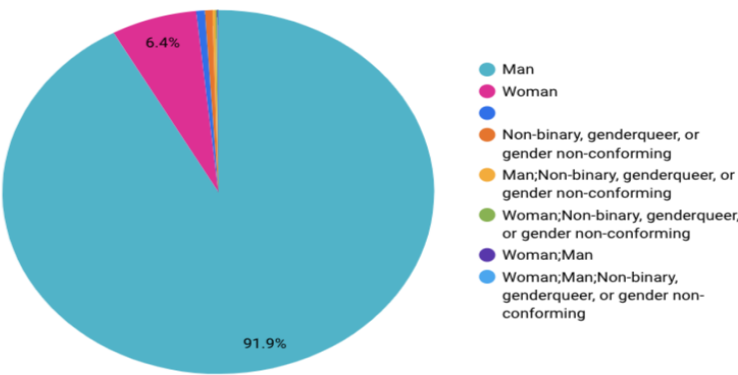
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DASHBOARD

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

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DASHBOARD TAB 1

DASHBOARD TAB 2

DASHBOARD TAB 3

Respondent classified by Gender

Respondent Count for Countries

- Man
- Woman
-
- Non-binary, genderqueer, or gender non-conforming
- Man;Non-binary, genderqueer, or gender non-conforming
- Woman;Non-binary, genderqueer, or gender non-conforming
- Woman;Man
- Woman;Man;Non-binary, genderqueer, or gender non-conforming

6.4%

91.9%

Record Count 1 3,127
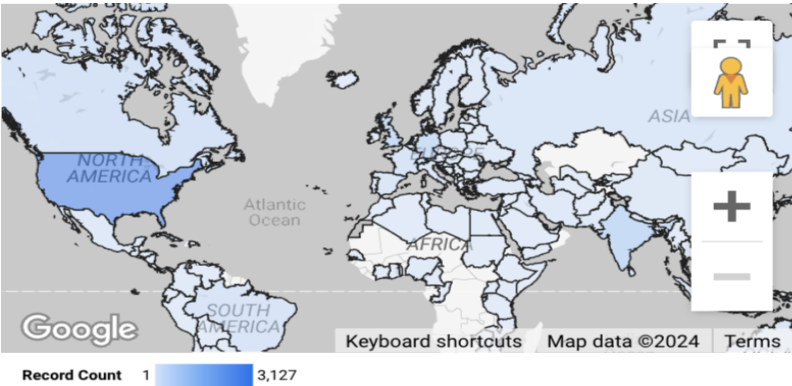
Respondent Count by Age

Record Count
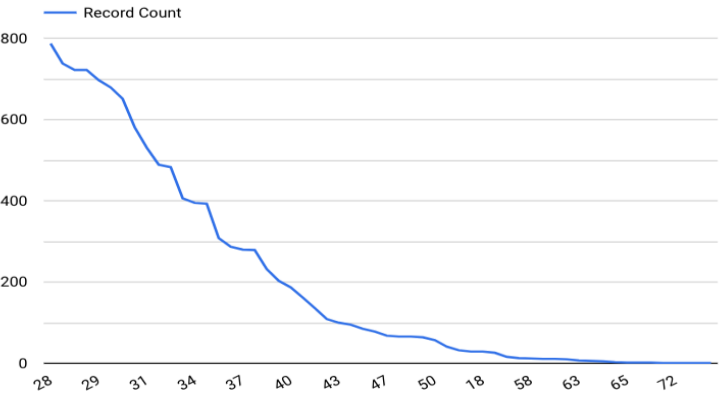
Respondent Count by Gender, classified by Formal Education Level

- Bachelor's d...
- Master's deg...
- Some colleg...
- Secondary s...
- Associate degree
- Other doctoral degr...
- Professional degre...
- I never completed any formal education
- Primary/elementary school

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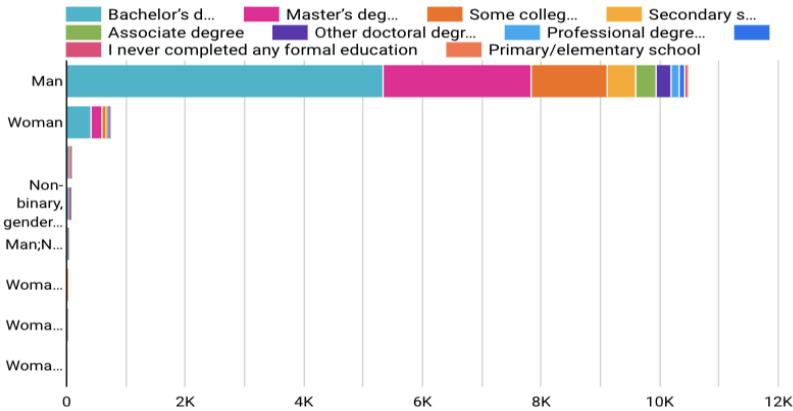
DISCUSSION

- Why do you think JavaScript and Python continue to dominate the programming landscape?

- How might the rise of TypeScript influence future development practices?

- What factors are driving the shift from MySQL to PostgreSQL as the preferred database solution?

- How can businesses leverage PostgreSQL's advanced features to gain a competitive advantage?

- What are the benefits of using Linux and Docker in modern development environments?

- How does the adoption of open-source platforms like Linux and Docker impact the scalability and flexibility of software projects?

- How should developers prioritize learning new technologies like PostgreSQL, Docker, and modern web frameworks to stay competitive in the job market?

- What strategies can businesses employ to ensure their teams are upskilled in these critical technologies?

- How should educational institutions adjust their curricula to better prepare students for these emerging technology trends?

- What role should industry partnerships play in aligning educational programs with the evolving demands of the tech industry?

OVERALL FINDINGS & IMPLICATIONS

Findings

- Programming Languages: JavaScript and Python dominate current usage and are highly desired for future projects, reflecting their versatility and demand across various applications.

- Databases: MySQL is the most used database, but PostgreSQL is gaining popularity for future use, signaling a shift towards more advanced and flexible database solutions.

- Platforms and Frameworks: Linux and Docker are the preferred platforms, while React.js and Vue.js lead in web framework usage, indicating a strong trend towards open-source and modern development environments.

Implications

- For Businesses: Investing in skills and infrastructure around JavaScript, Python, and PostgreSQL will be crucial to staying competitive. Embracing open-source platforms like Linux and Docker can enhance flexibility and scalability.

- For Developers: Focusing on JavaScript, Python, and PostgreSQL will keep skills relevant and in demand. Expanding expertise in modern frameworks and containerization tools like React.js, Vue.js, and Docker is recommended.

- For Educational Institutions: Curricula should prioritize JavaScript, Python, and PostgreSQL, alongside training in open-source platforms and modern development frameworks, to prepare students for the evolving tech landscape.

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CONCLUSION

- JavaScript and Python dominate current and future programming language trends, reflecting their versatility and broad applicability.

- PostgreSQL is gaining traction as the preferred database for future use, indicating a shift towards more advanced and flexible database solutions.

- Linux and Docker lead in platform preferences, emphasizing the move towards scalable, open-source environments.

- Businesses, developers, and educational institutions should focus on these key technologies to stay competitive and relevant in the evolving tech landscape.

APPENDIX

	LanguageWorkedWith	Record Count ▾
1.		14,798
2.	JavaScript	8,687
3.	HTML/CSS	7,830
4.	SQL	7,106
5.	Bash/Shell/PowerShell	4,642
6.	Python	4,542
7.	Java	4,506
8.	C#	4,288
9.	TypeScript	3,232
10.	PHP	2,913
11.	C++	1,946
12.	C	1,578

1 - 29 / 29 ‹ ›

	LanguageDesireNextYear	Record Count ▾
1.		18,826
2.	JavaScript	6,630
3.	HTML/CSS	5,328
4.	Python	5,239
5.	SQL	5,012
6.	TypeScript	4,088
7.	C#	3,591
8.	Bash/Shell/PowerShell	3,097
9.	Java	2,953
10.	Go	2,759
11.	Kotlin	1,890
12.	C++	1,633

1 - 29 / 29 ‹ ›

	DatabaseWorkedWith ▾	Respond...
1.	SQLite	3,248
2.	Redis	2,508
3.	PostgreSQL	4,097
4.	Other(s):	728
5.	Oracle	1,744
6.	MySQL	5,469
7.	MongoDB	3,016
8.	Microsoft SQL Server	4,110
9.	MariaDB	1,709
10.	Firebase	1,314
11.	Elasticsearch	1,954
12.	DynamoDB	831
13.	Couchbase	250

	DatabaseDesireNextYear	Respondent ▾
1.		10,799
2.	PostgreSQL	4,328
3.	MongoDB	3,649
4.	Redis	3,331
5.	MySQL	3,281
6.	Elasticsearch	2,856
7.	Microsoft SQL Server	2,706
8.	SQLite	2,437
9.	Firebase	1,650
10.	MariaDB	1,385
11.	DynamoDB	1,044
12.	Cassandra	1,003
13.	Oracle	870