

Trending and Current Technologies used by Developers - Cheun - October 10, 2025

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OUTLINE



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 - Findings & Implications
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EXECUTIVE SUMMARY



- Top programming languages used:
 - Javascript, SQL, HTML, CSS, TypeScript,
- Top databases used:
 - PostgreSQL, MySQL, MongoDB, Microsoft SQL Server
- Popular platforms:
 - AWS, Azure, Google Cloud, Cloudflare
- Future Technology Trend:
 - JavaScript takes the lead followed by SQL and TypeScript
 - PostgreSQL, Redis, SQLite, MySQL are among the top 4 databases
 - AWS, Azure, Google Cloud, and Cloudflare are the top 4 cloud platforms
 - React.js and Node.js take the lead as the top 2 web platforms



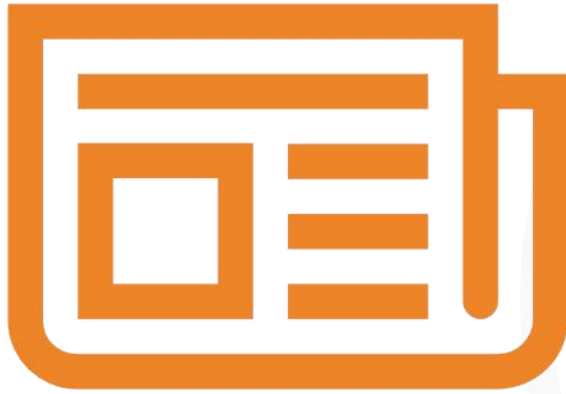
INTRODUCTION



- In today's fast-evolving tech landscape, developers are consistently exploring new tools, frameworks, and methodologies to stay ahead of the curve.
- This survey aims to explore the current and future trending technologies used by developers.
- Using a variety of programming languages, databases, and cloud platforms used by over 18000 developers
- Let's explore together our notable findings



METHODOLOGY



- The data is based on a survey that was conducted by Stack Overflow, which involved over 18000 software developers from 160 countries
- Familiarization with this dataset was achieved through completing IBM Labs on Coursera, which encompass topics such as web scraping, data exploration, data wrangling, data analysis, and data visualization.
- Data analysis and visualization was conducted via IBM Cognos Analytics



RESULTS



- **Javascript** is the most used programming language followed by TypeScript
- **Python** has overtaken **Java** and is the 3rd programming language that most developers want to work with
- **PostgreSQL, Redis, SQLite, MySQL** remain the top 4 databases most respondents want to work with
- AWS, Azure, Google Cloud, and Cloudflare are the top 4 platforms that respondents are working with and want to work with
- The percentage of respondents who are between **25-34 years old** is **41.8%**, while the percentage of respondents who are **35-44 years old** is **27.7%**
- **React.js** and **Node.js** are the two most widely used web frameworks, each commanding about **11% of the market**
- Approximately **70%** of respondents hold a **bachelor's degree**, while about **27%** have earned a **master's degree**
- Around **40%** of our respondents are from the **US**, with **India** representing approximately **17%**



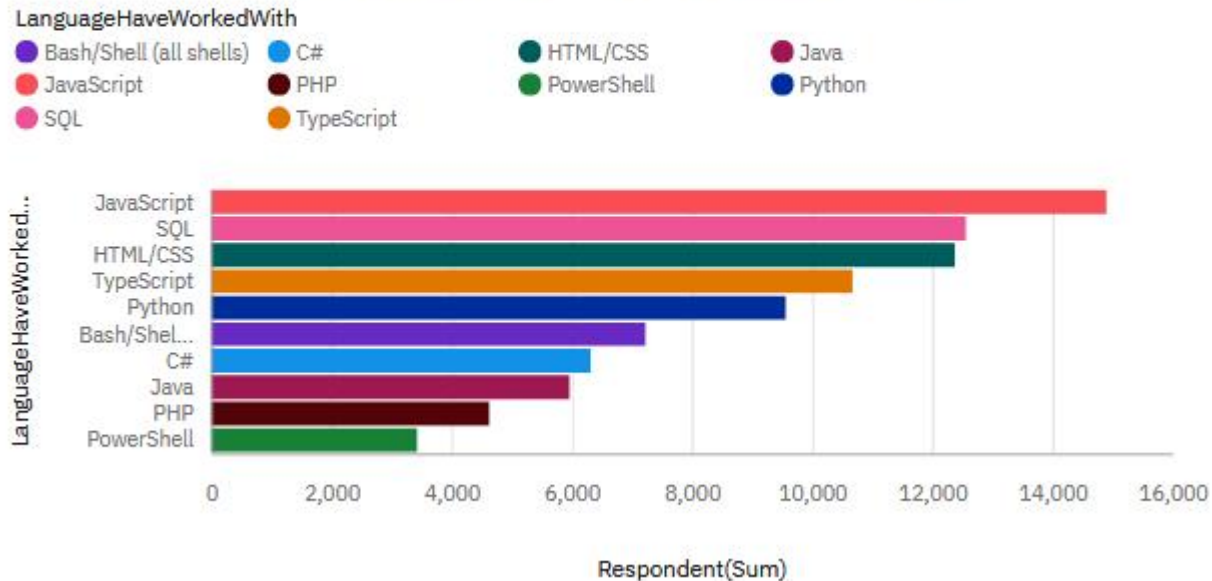
TOP 10 PROGRAMMING LANGUAGE

Current Technology

Future Trends

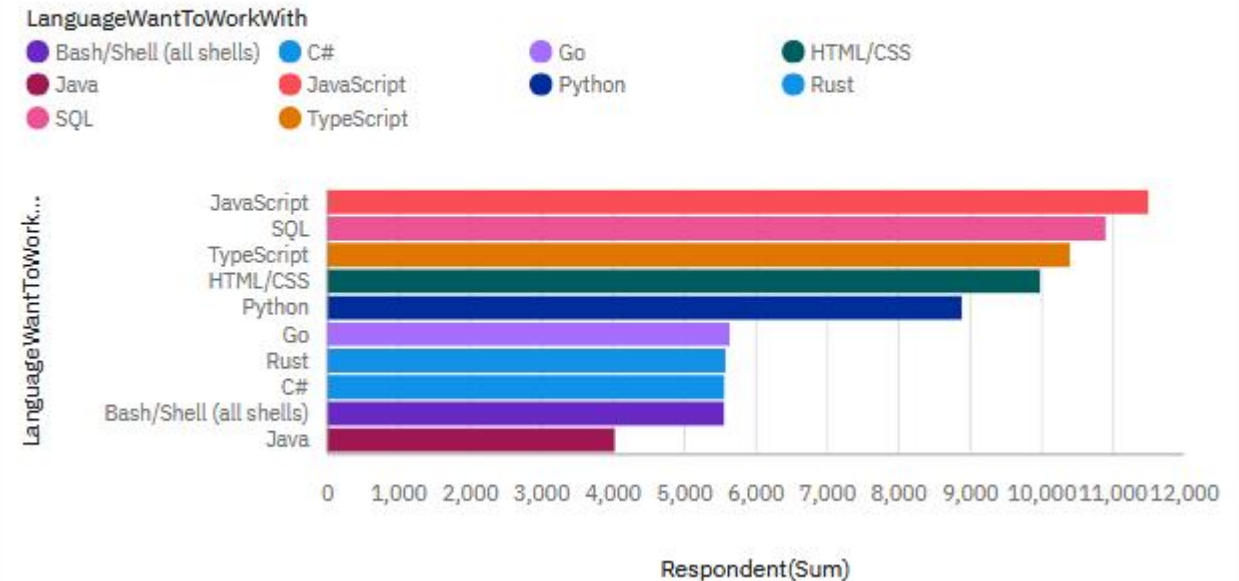
Current Technology Usage

Top 10 Languages Respondent Worked With



Future Technology Trend

Top 10 Language Respondent Want To Worked With



PROGRAMMING LANGUAGE - FINDINGS & IMPLICATIONS

Findings

- **Javascript** and **HTML/CSS** are the most used programming and markup languages
- **SQL** also maintained a significant presence
- **Python** has surpassed **Java, C#, PHP** across all rankings

Implications

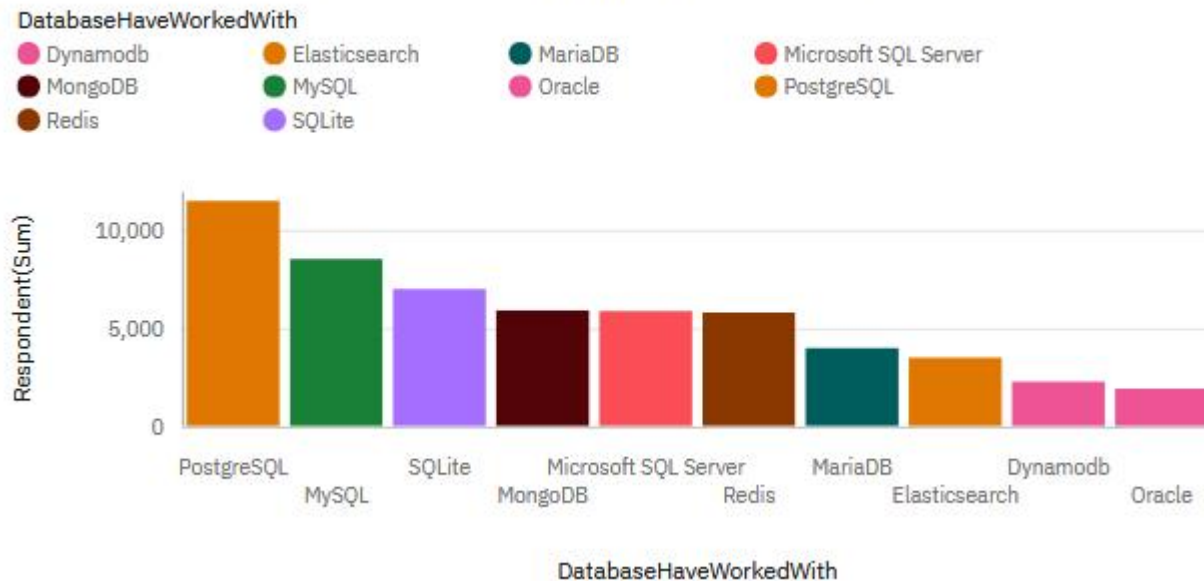
- The dominance of **JavaScript** and **HTML/CSS** underscores their essential role in web development, making them fundamental skills for developers
- The widespread use of **SQL** highlights the vital role of data management and querying in modern software applications, spanning both web and non-web environments
- The rise of **Python** highlights its versatility and widespread use across various domains, including machine learning, data science, data analysis, automation, and software development



DATABASE TRENDS

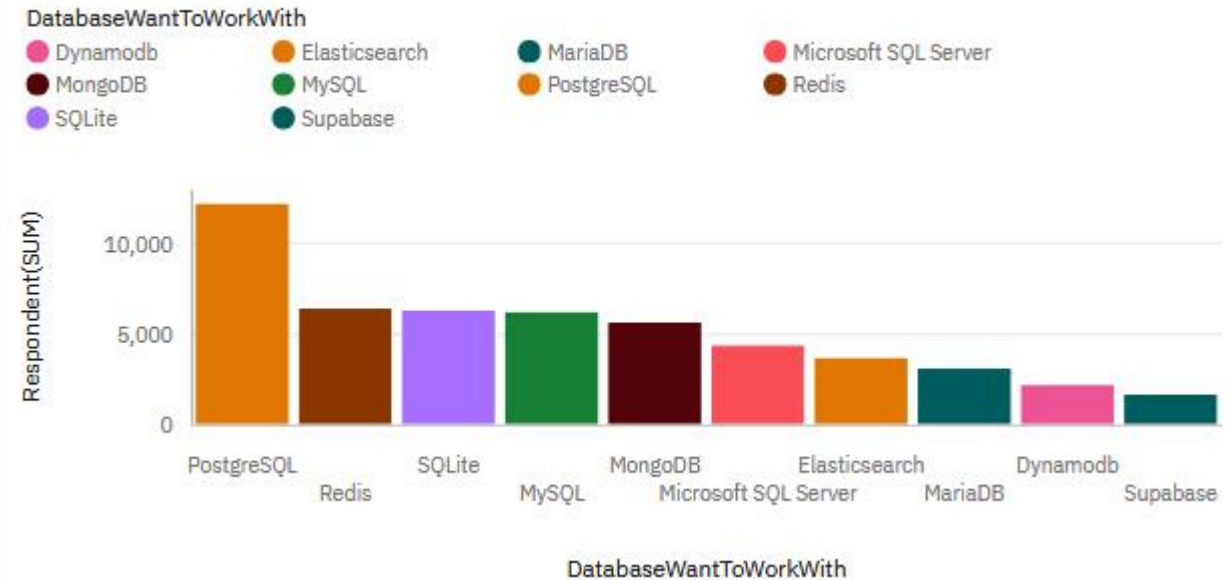
Current Trend

Top 10 Databases Respondent Worked With



Future Trend

Top 10 Databases Respondent Want To Worked With



DATABASE TRENDS

Findings

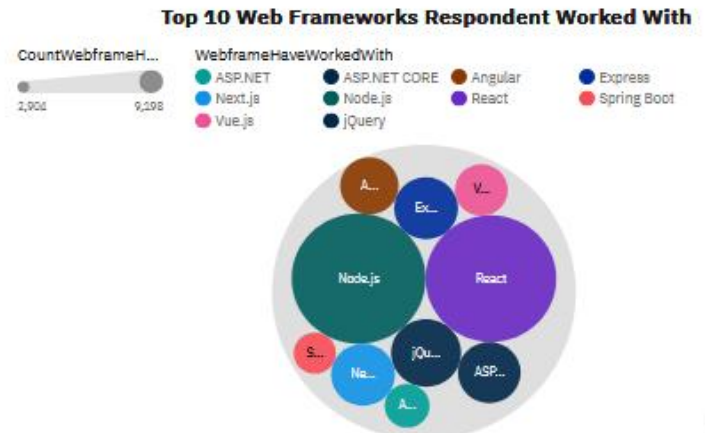
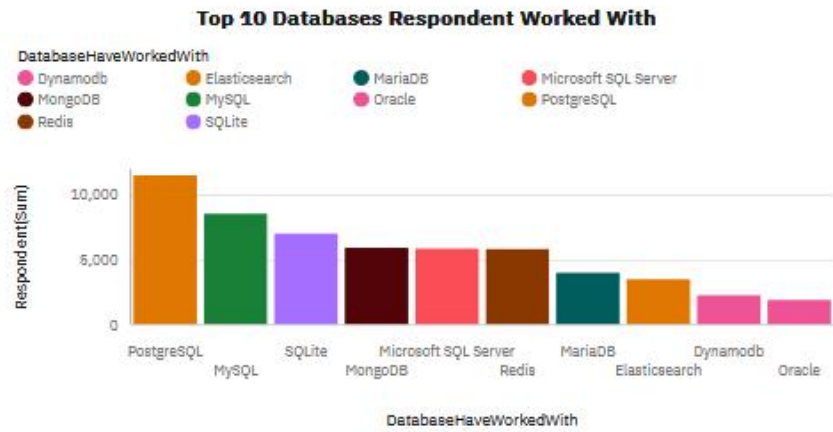
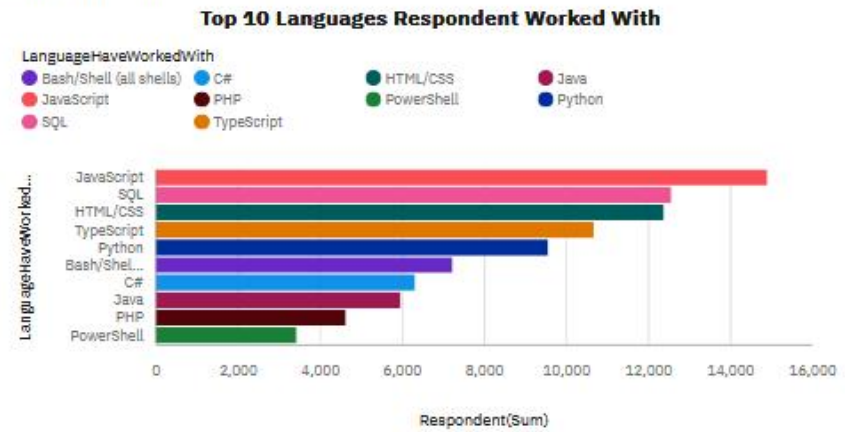
- **MongoDB** ranks as the most widely used DBMS among all respondents.
- **MySQL** and **SQLite** follow closely behind **PostgreSQL**
- **MongoDB** and **Redis** rank as the top **NoSQL** databases

Implications

- The popularity of **PostgreSQL**, **MySQL**, and **SQLite** underscores the continued importance of relational databases across a wide range of applications
- The widespread use of **SQL** highlights the vital role of data management and querying in modern software applications, spanning both web and non-web environments
- The high usage of **MongoDB** and **Redis** reflects the growing shift toward **NoSQL** databases, driven by their flexibility, scalability, and strong performance in read/write operations and real-time applications

CURRENT TECHNOLOGY USAGE

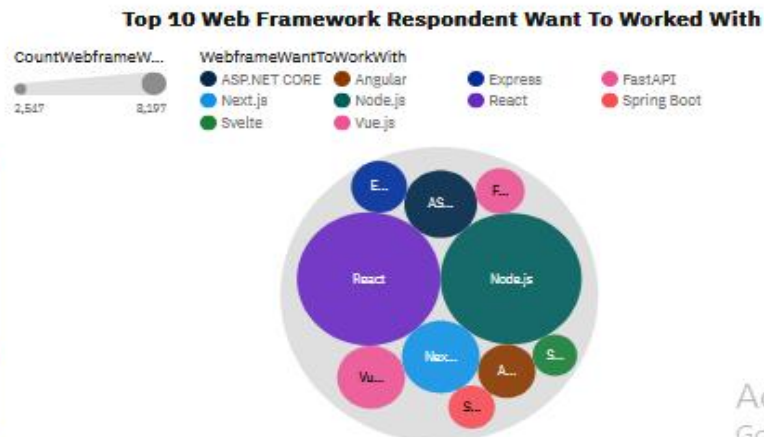
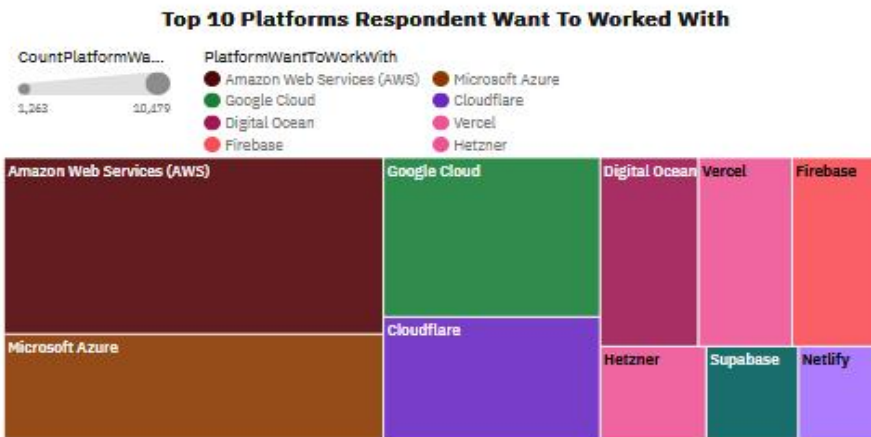
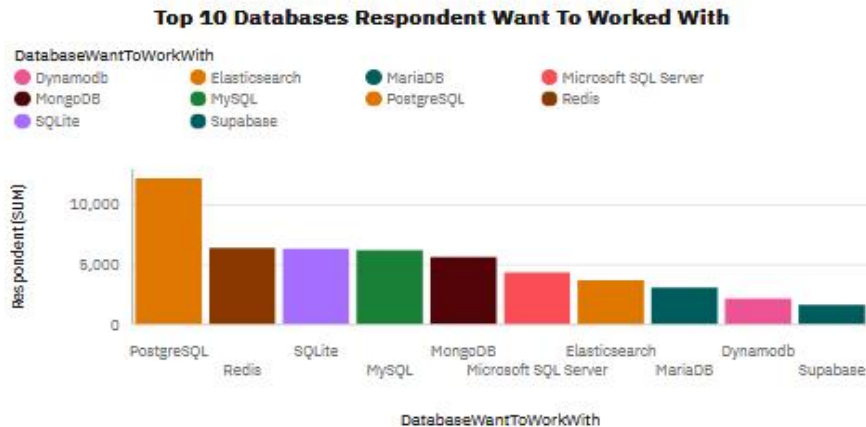
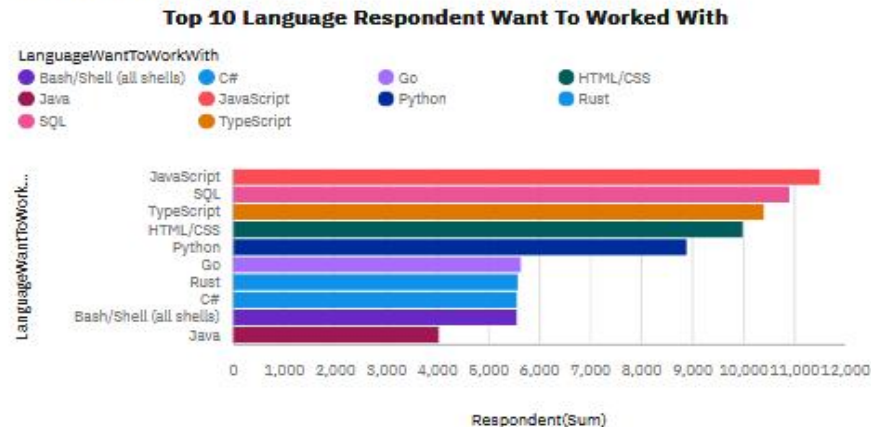
Current Technology Usage



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FUTURE TECHNOLOGY TREND

Future Technology Trend

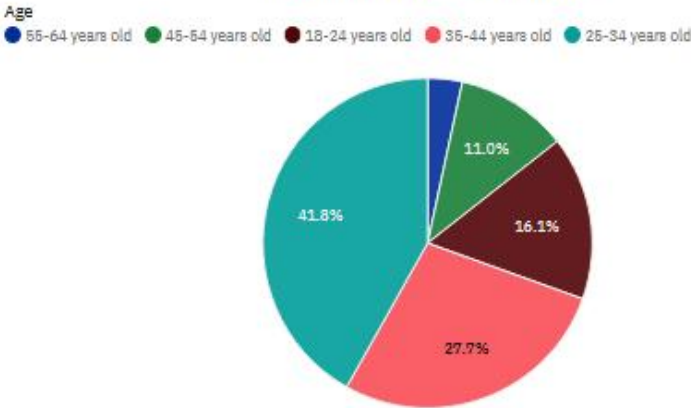


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DEMOGRAPHICS

Demographics

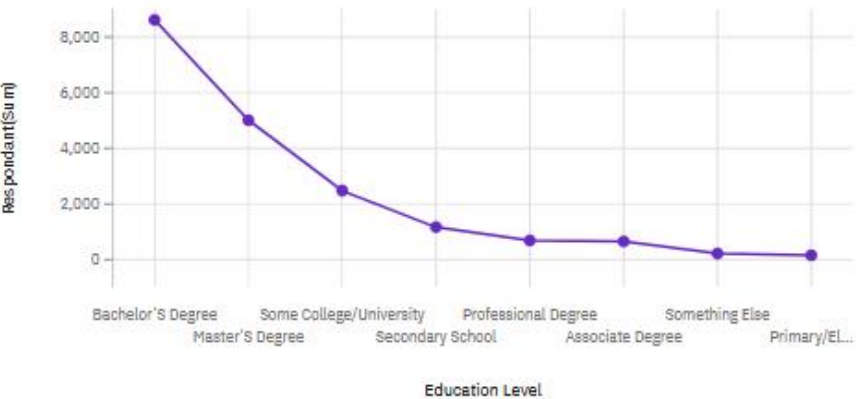
Respondent distribution by Age



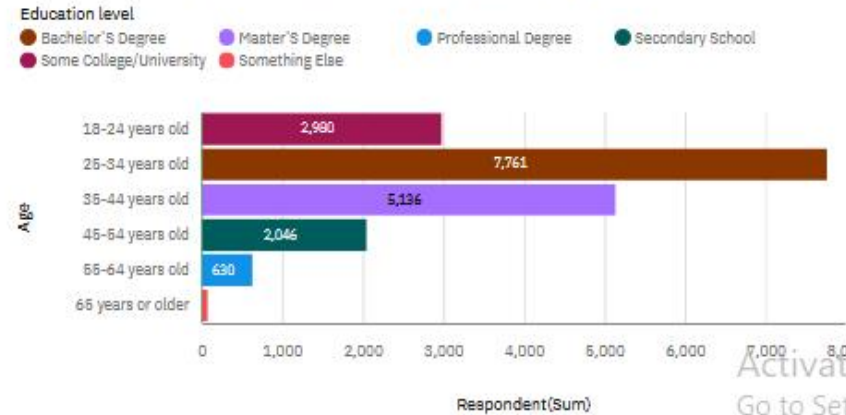
Respondent Count by Country.



Respondent distribution by Formal Education Level



Respondent Count by Age, classified by Education Level



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DISCUSSION



- The dominance of **JavaScript** and **HTML/CSS**, along with the widespread use of **PostgreSQL** as the leading database management system, highlights key trends in modern web development
- The rise of Python over Java in certain areas highlights a number of shifts in the tech landscape, where developer preferences, industry trends, and use cases have evolved to favor Python for many modern applications

CONCLUDING REMARKS

Findings

- **Technology Trends:**
 - The dominance of **JavaScript** and **HTML/CSS** underscores their essential role in web development, making them fundamental skills for developers
 - The rise of **Python** highlights its versatility and widespread use across various domains, including machine learning, data science, data analysis, automation, and software development
- **Data Management:**
 - The popularity of **PostgreSQL**, **MySQL**, and **SQLite** underscores the continued importance of relational databases across a wide range of applications
- **Diversity of tools**
 - "The wide variety of programming languages, databases, and platforms used by developers underscores the importance of versatility and a deep understanding of each technology's strengths and limitations."

Implications

- The growing prominence of **Python** suggests that developers and organizations increasingly value languages that offer flexibility and applicability across multiple domains. As a result, **Python** proficiency is becoming a critical skill for professionals in fields ranging from data science and machine learning to automation and general software development
- Despite the rise of **NoSQL** and other modern database technologies, relational databases remain essential and widely used in many application domains. Their reliability, structured data handling, and robust querying capabilities (**SQL**) continue to make them the backbone of many systems, from small-scale apps to large enterprise platforms.
- **Versatility:** Technological versatility and informed decision-making are critical skills in today's rapidly evolving development landscape



CONCLUSION



- The findings underscore the **dynamic nature** of the **programming** landscape and the critical role of cloud technology in **scalability, performance, and security** of modern applications
- **Developers** must continuously learn and adapt to different technologies, rather than relying solely on a single language or platform. To build effective and scalable solutions, they need to **choose the right tools for the task**, which requires a **broad skill set** and the ability to **critically assess the strengths and weaknesses** of each technology.



APPENDIX



- Include any relevant additional charts, or tables that you may have created during the analysis phase.