

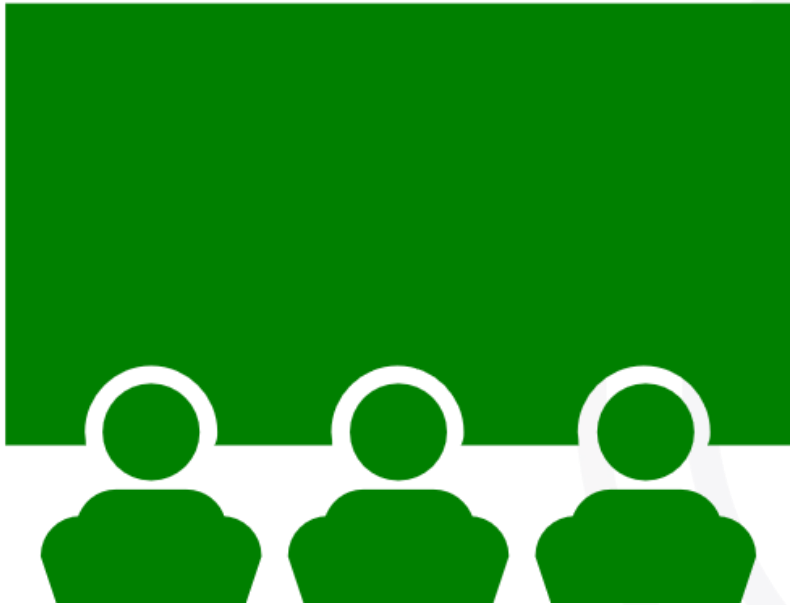


Analyzing Technology Skills & Trends

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OUTLINE



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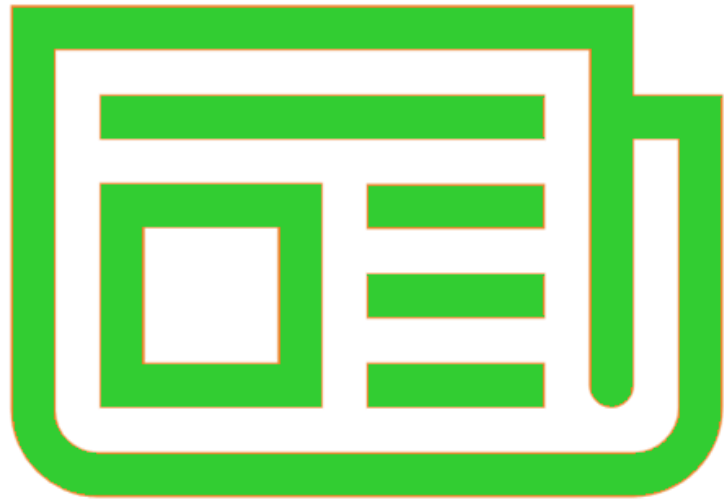
EXECUTIVE SUMMARY

- ▶ To be competitive in the global IT sector, it's essential to keep up with the ever-changing technologies. This report uses data analytics to highlight current and projected trends in the need for skills related to programming languages, databases and other technologies. It also studies the demographics of professionals in the technology sector.
- ▶ Data was gathered from a Stack overflow survey, IBM site, and Github job postings. It was collected, cleaned, subjected to exploratory analysis, and visualized on dashboards.



INTRODUCTION

- ▶ This presentation report uses data analytics to highlight current and projected trends in the need for skills related to programming languages, databases, platforms and web frames.
- ▶ The following inquiries were investigated using the data:
 1. Which programming languages are most in demand today?
 2. What are the most in-demand database skills?
 3. What popular IDEs or Web frames are there?



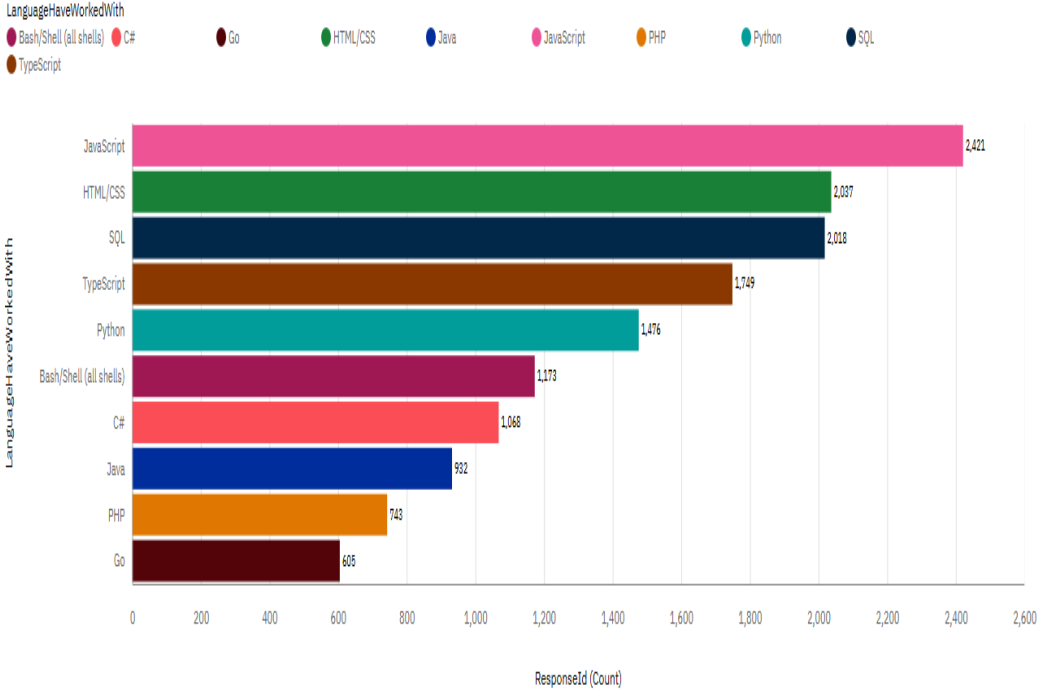
METHODOLOGY

- ▶ Data in several formats, such as the number of jobs currently available for different technologies and for different places, were gathered using the Github jobs API on python.
- ▶ To obtain the names of the programming languages and their yearly wages, the IBM website was scraped. The dataset from a 2019 Stack Overflow developer survey was downloaded and saved.

PROGRAMMING LANGUAGE TRENDS

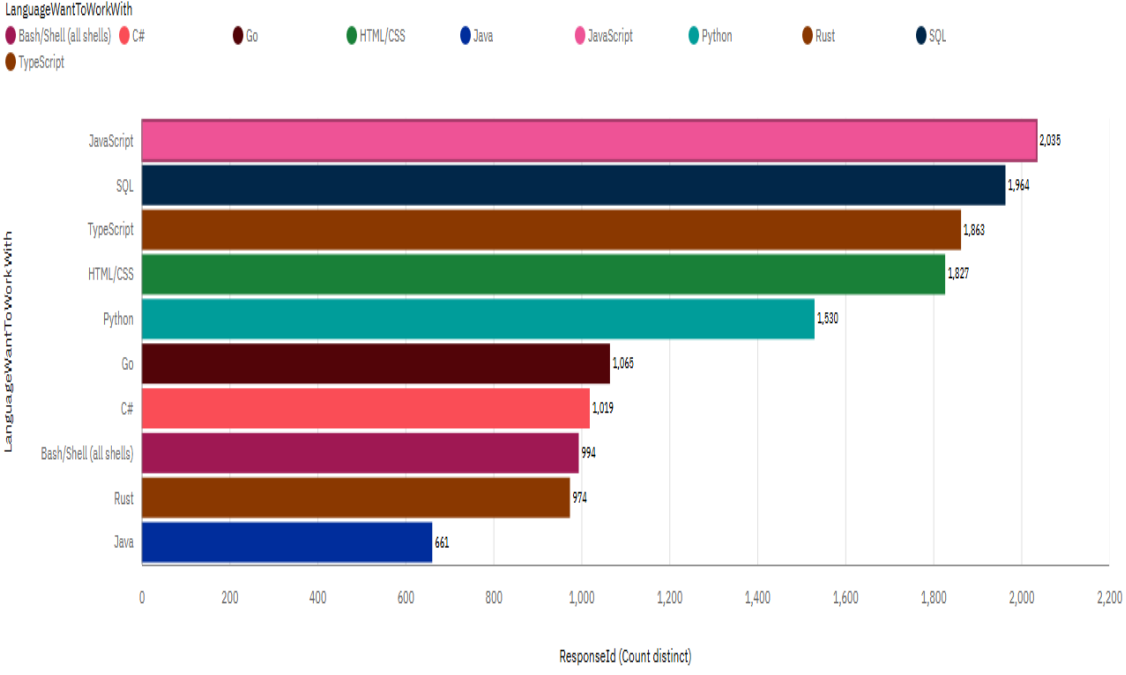
Current Year

Top 10 Languages Developers Have Worked With



Next Year

Top 10 Languages Developers Want to Work With



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- ▶ JavaScript is the most commonly worked-with language and the most desired language developers want to work with.
- ▶ SQL is among the top languages developers have worked with and want to work with.
- ▶ Languages with strong job demand (JavaScript, SQL, Python) will continue to dominate.

Implications

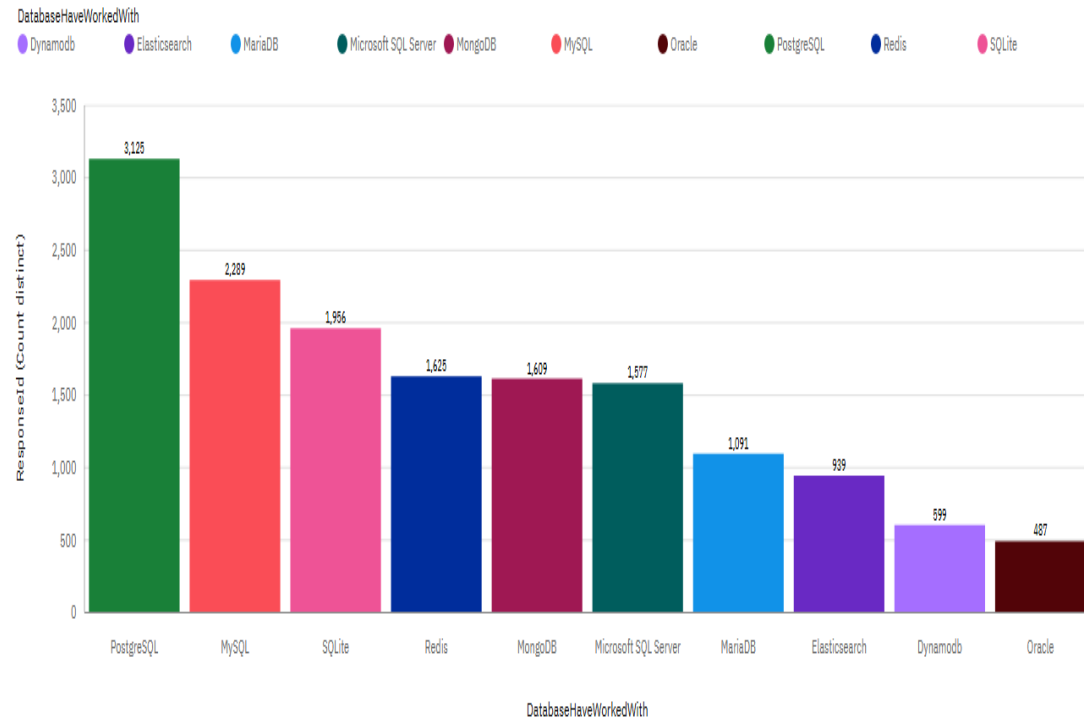
- ▶ JavaScript's significance in web development and full-stack applications, making it a crucial skill for developers.
- ▶ SQL is a vital skill for backend and full-stack developers
- ▶ Some traditional languages (Java, Bash) are still relevant but may not be as appealing to new developers.



DATABASE TRENDS

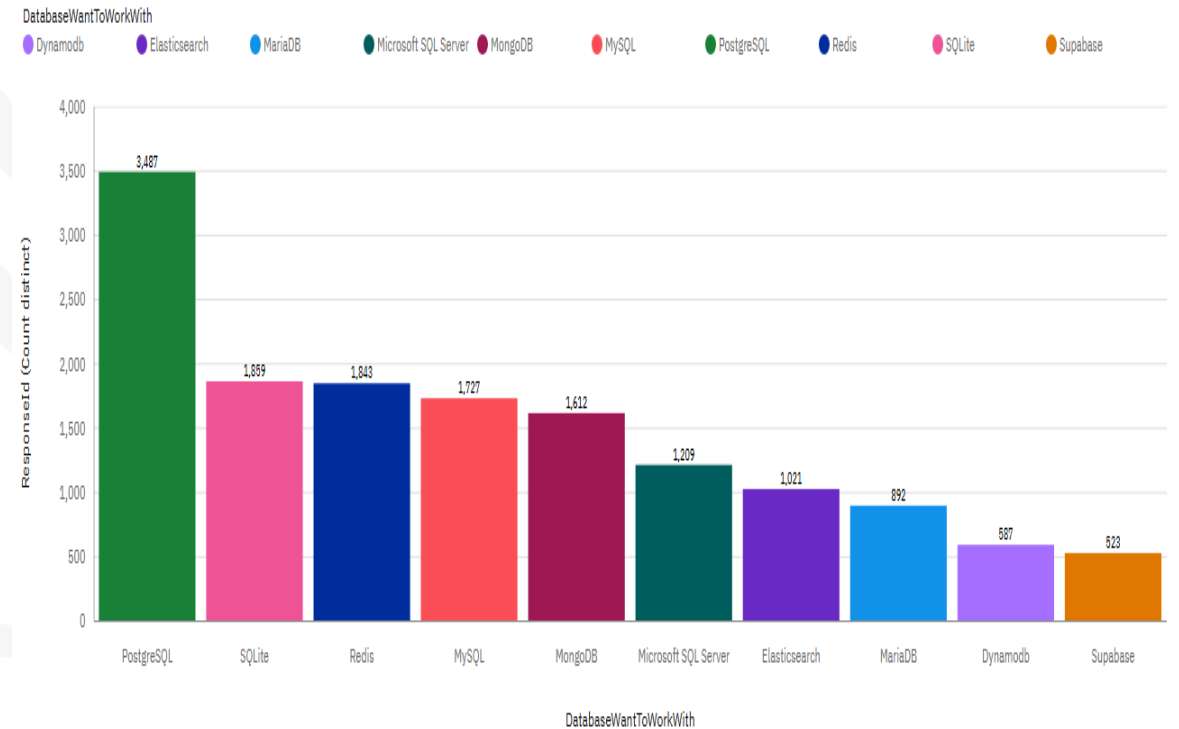
Current Year

Top 10 Database Developers Have Worked With



Next Year

Top 10 Database Developers Want to Work With



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- ▶ **Most Popular Databases Developers Have Worked With:** PostgreSQL, Oracle, SQLite
- ▶ **Databases Developers Want to Work With:** PostgreSQL, SQLite, Redis, Supabase

Implications

- ▶ **PostgreSQL is the clear leader**, both in usage and developer interest.
- ▶ **Supabase is emerging**, indicating a trend toward serverless and scalable database solutions

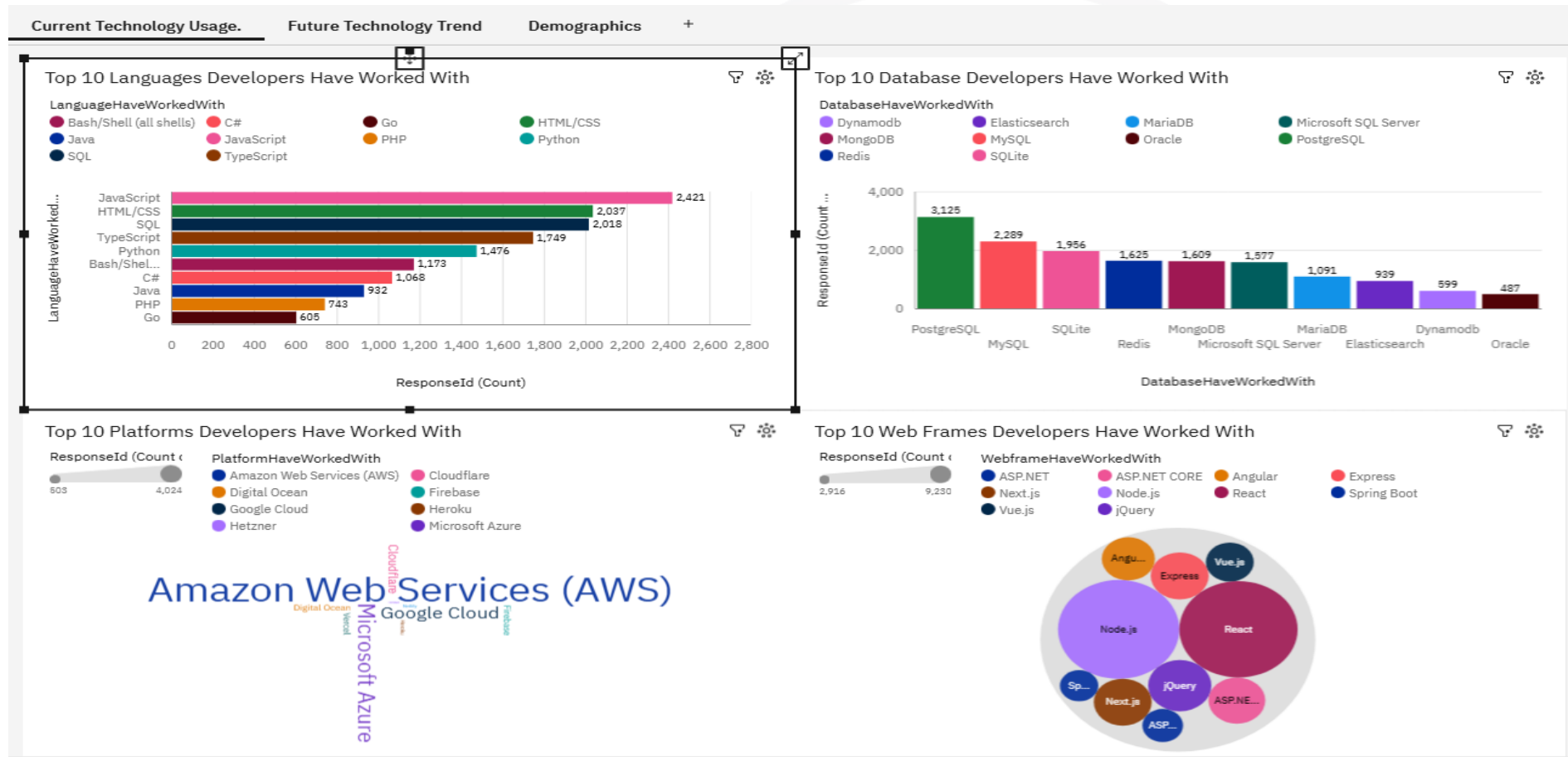




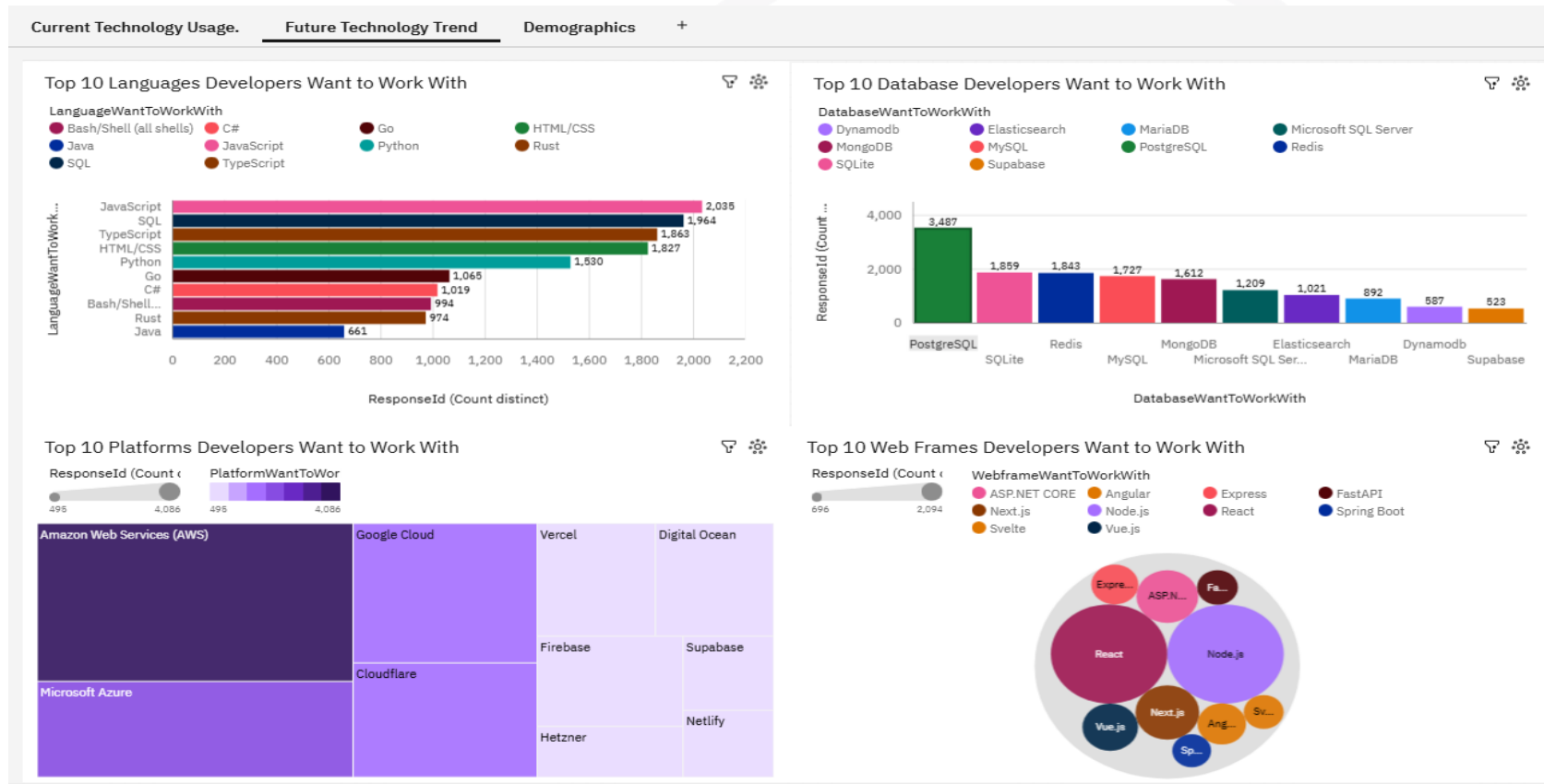
DASHBOARD



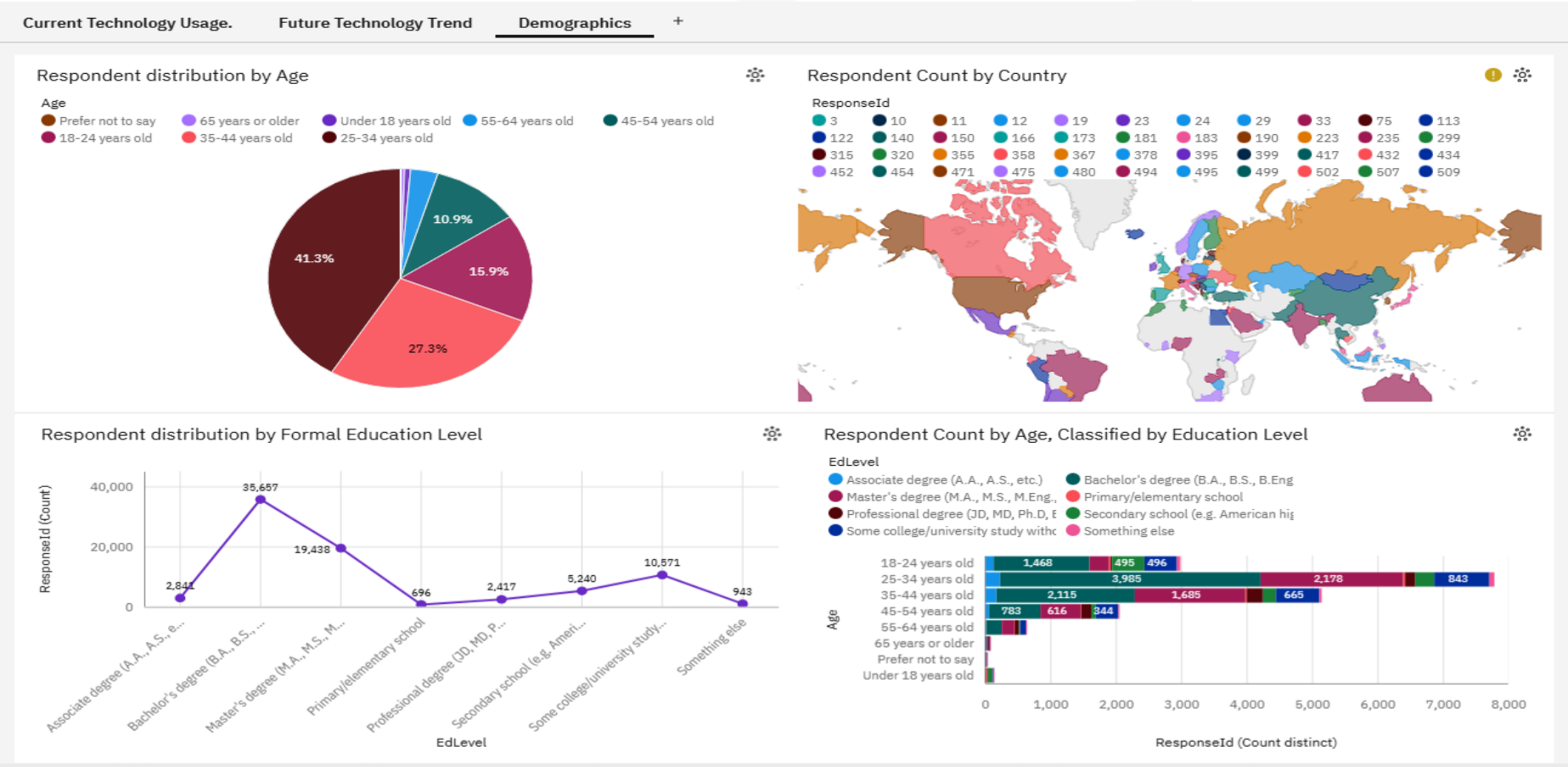
Current Technology Usage



Future Technology Usage



Demographics





DISCUSSION

- ▶ Upskilling in the Technology sector.
- ▶ The increasing demand for mobile development as Kotlin is getting popular.
- ▶ How relevant will Oracle SQL still be in the future?

OVERALL FINDINGS & IMPLICATIONS

Findings

- ▶ JavaScript is the most commonly worked-with language and the most desired language developers want to work with.
- ▶ Most Popular Databases Developers Have Worked With: PostgreSQL, Oracle, SQLite

Implications

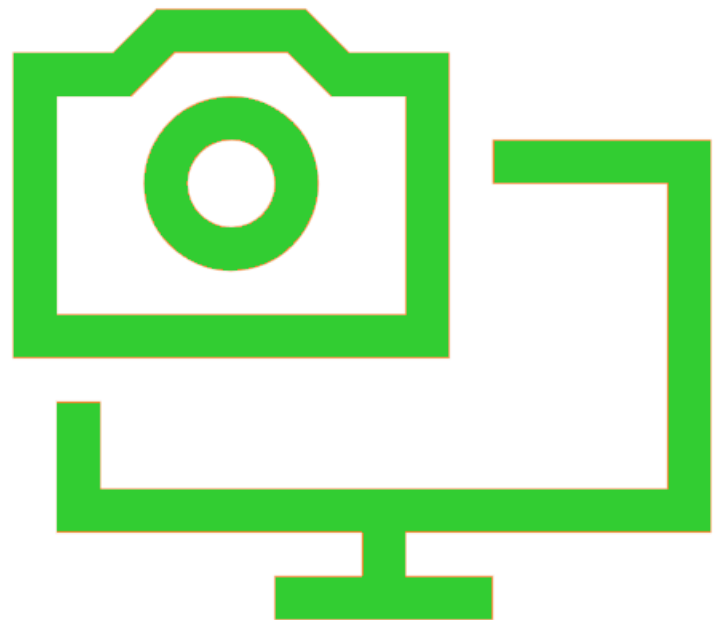
- ▶ SQL is a vital skill for backend and full-stack developers
- ▶ Supabase is emerging, indicating a trend toward serverless and scalable database solutions





CONCLUSION

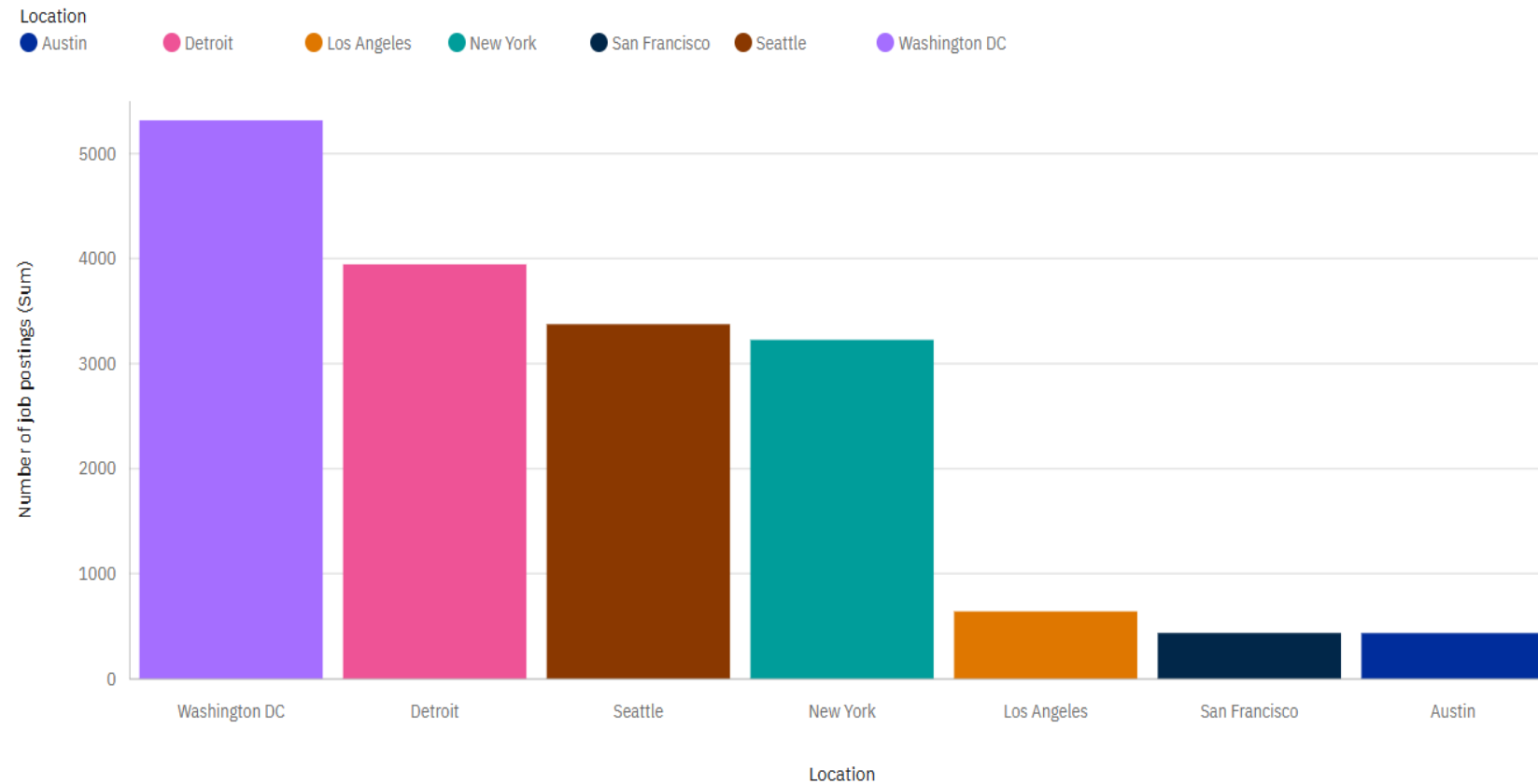
Staying updated in the tech sector is crucial, as trends continuously evolve over time.



APPENDIX

JOB POSTINGS

Number of Jobs by Location colored by Location



POPULAR LANGUAGES

Average Annual Salary by Language colored by Language



Language

C# C++ Go Java Javascript PHP Python R SQL Swift

