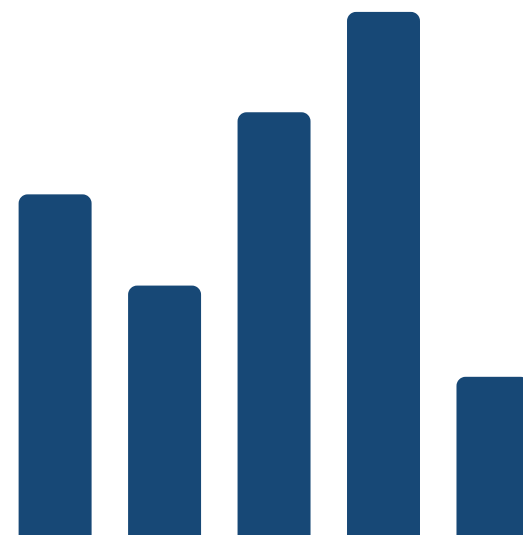


TECH TREND ANALYSIS



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OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
 - Visualization - Charts
 - Dashboard
- Discussion
 - Findings and Implications
- Conclusion
- Appendix

EXECUTIVE SUMMARY

- JavaScript dominates; PostgreSQL emerges, shaping current and future tech landscapes.
- Key Technology Trends
 - Linux, Docker, AWS prevail; JavaScript frameworks lead.
 - PostgreSQL gains prominence, signaling potential shifts.
 - Predominantly male, aged 20-30, with bachelor's degrees.
- Prioritize JavaScript, consider PostgreSQL, align with popular platforms.
- Insights guide future research, provide a framework for strategic decisions.

INTRODUCTION

- Uncovering tech trends is crucial for understanding the digital tools landscape.
- Anticipating future tech trends is vital for organizational alignment with evolving developer preferences.
- Demographic exploration reveals valuable insights into the diverse developer community.
- This analysis establishes a robust, data-driven framework for strategic decision-making in the dynamic tech environment.
 - Delving into top programming languages, databases, platforms, and web frameworks unveils the current developer landscape.
 - The analysis not only uncovers present trends but also lays the groundwork for anticipating future innovations, offering a roadmap for continuous growth in the tech industry.

METHODOLOGY

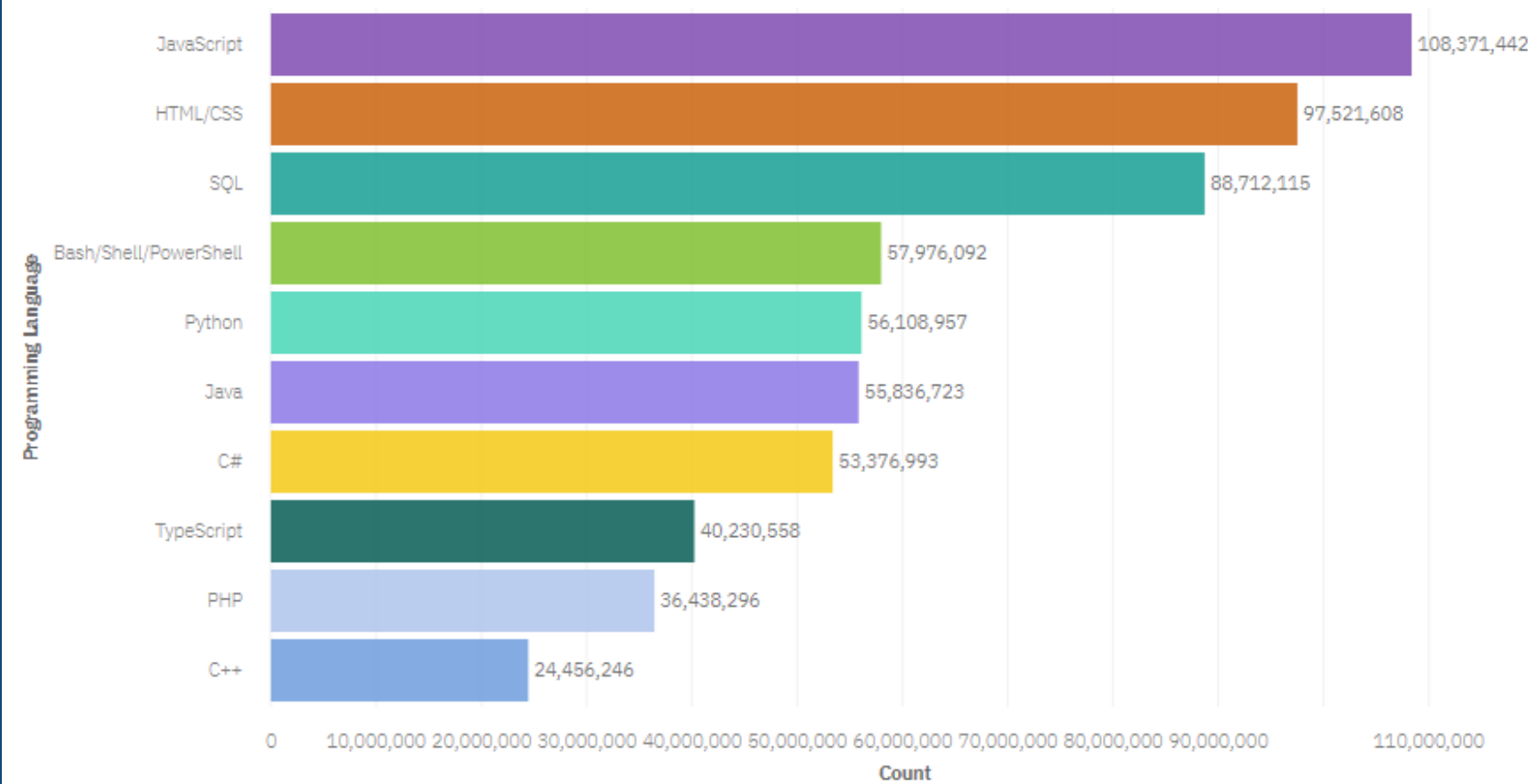
- Data Collection
(Stack Overflow Developer Survey 2019)
- Data Cleaning and Wrangling
- Data Normalization
- Exploratory Data Analysis
- Data Visualization
 - Dashboard Creation
 - Dashboard Presentation

RESULTS

PROGRAMMING LANGUAGE TRENDS

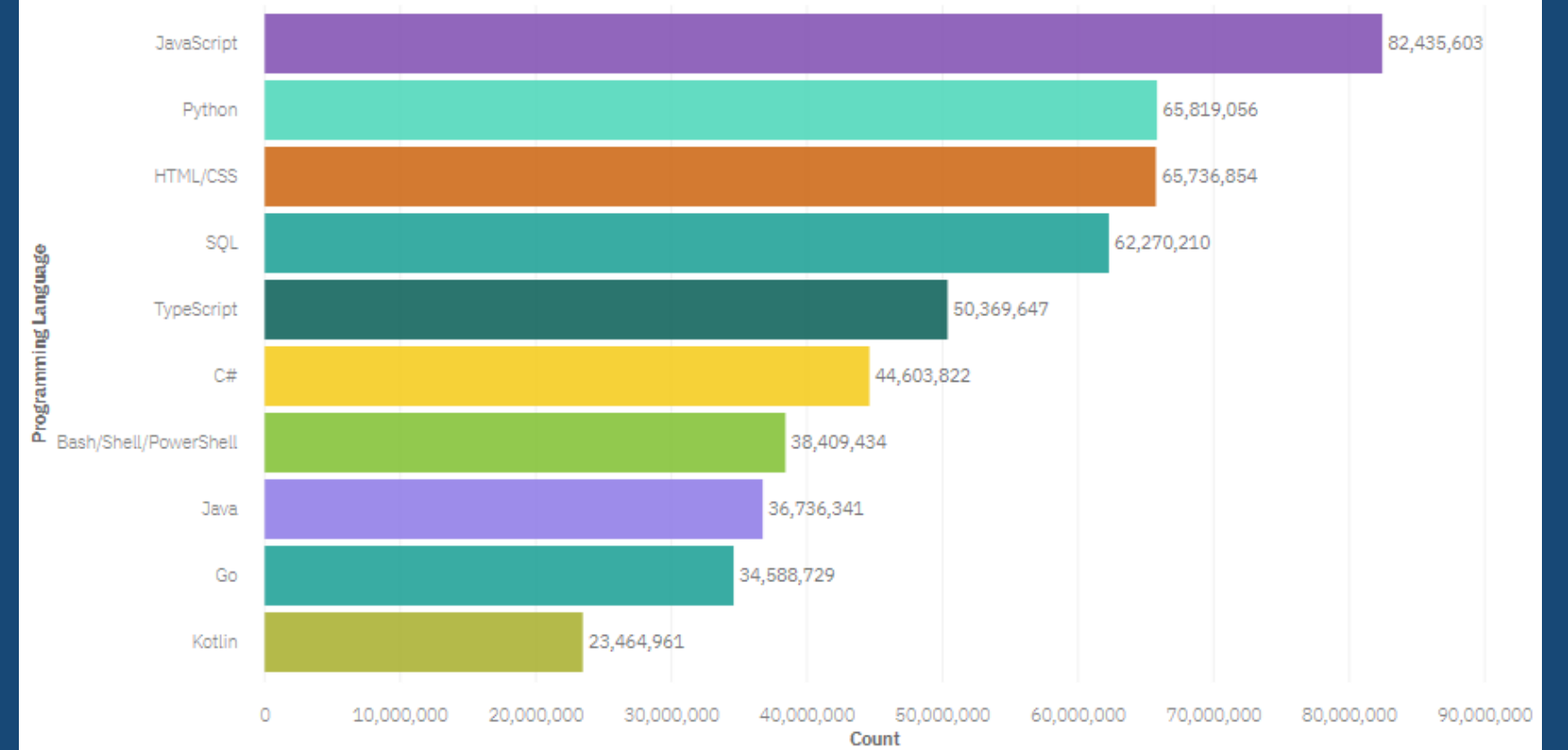
Current Year

Top 10 Programming Languages Worked With



Following Year

Top 10 Language Desire Next Year



FINDINGS

AND IMPLICATIONS

Findings

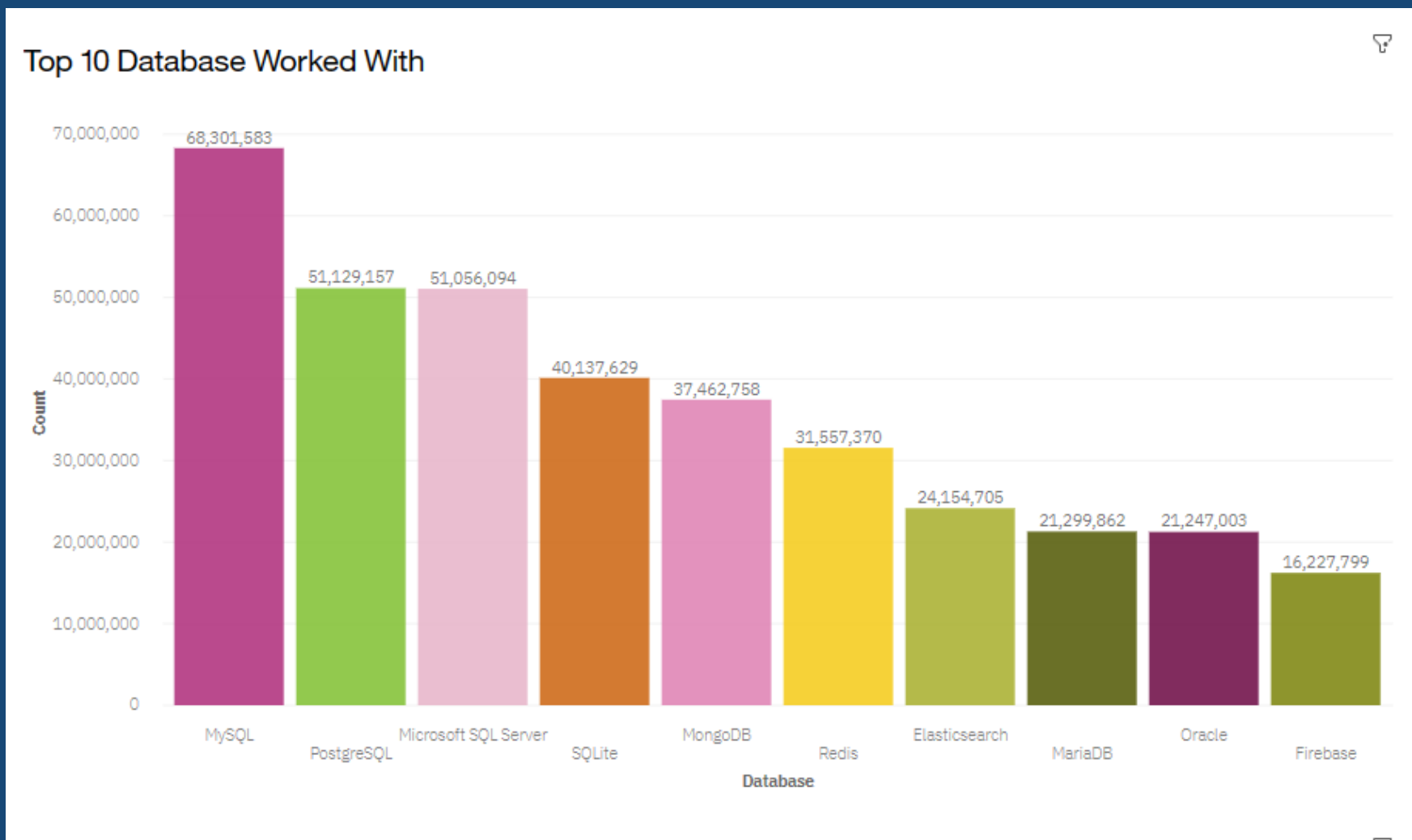
- JavaScript is the most widely used programming language currently
- JavaScript maintains its top position in desired languages for the next year, indicating a sustained demand.
- Go and Kotlin are emerging as desired languages, suggesting a potential shift in developer preferences.

Implications

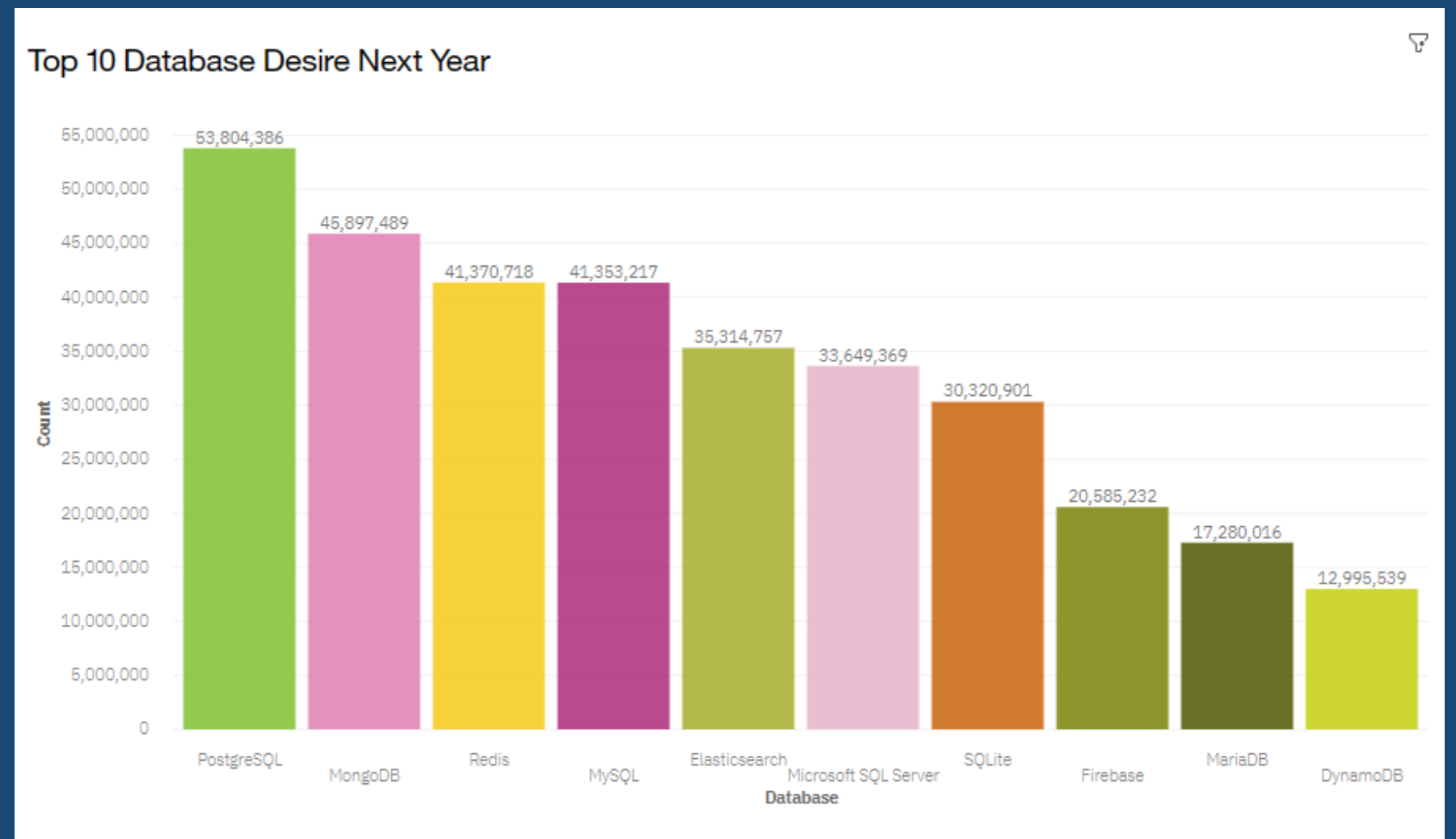
- The widespread use of JavaScript signifies its continued dominance in the industry. Organizations should prioritize JavaScript skills for development projects.
- The consistent demand for JavaScript implies that developers specializing in these languages are likely to have stable job prospects in the coming year.
- The emergence of Go and Kotlin highlights the need for organizations to consider adapting to newer languages to stay competitive and attract skilled developers.

DATABASE TRENDS

Current Year



Following Year



Findings

- MySQL is the most widely used database currently, followed by PostgreSQL and Microsoft SQL Server.
- PostgreSQL maintains its popularity and is the most desired database for the next year.
- Elasticsearch and DynamoDB are gaining traction as desired databases, indicating a shift in preferences.

Implications

- The widespread use of MySQL and PostgreSQL suggests stability in database choices. Organizations may benefit from investing in these technologies for long-term projects.
- The continued preference for PostgreSQL implies a strategic advantage for organizations that prioritize this database in their tech stack. Considerations for training and skill development should align with this trend.
- The emergence of Elasticsearch and DynamoDB highlights the importance of organizations exploring and adopting newer database technologies to stay competitive and address evolving data needs.

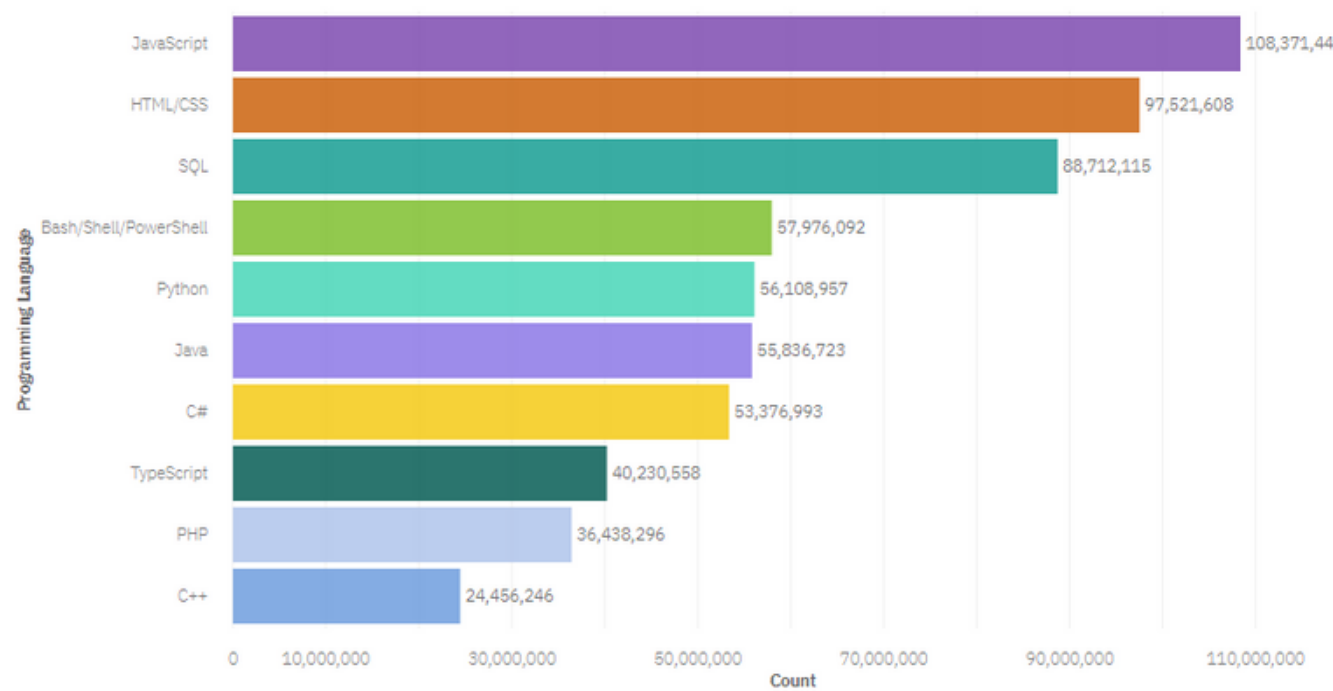
DASHBOARD



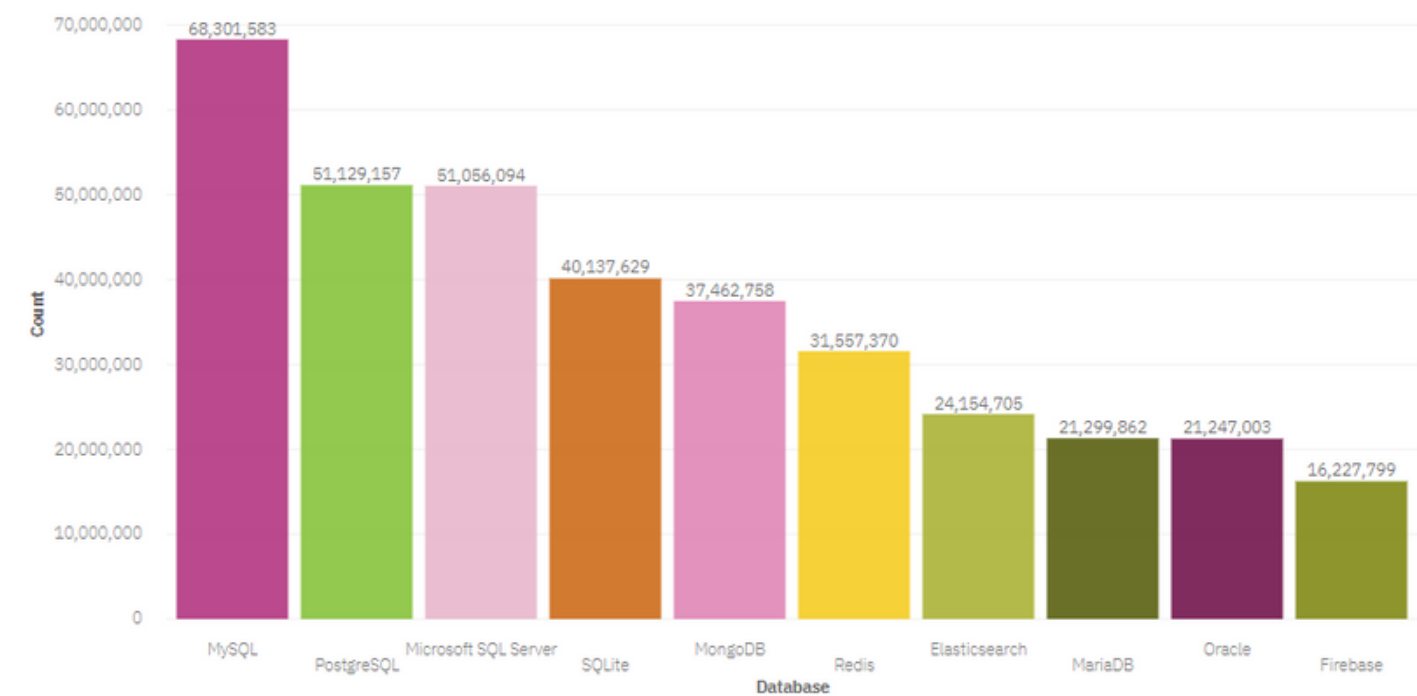
<https://dataplatform.cloud.ibm.com/dashboards/464f5c14-1087-4dad-bea2-0e174e4291/view/0621d906618b6dc849fcdce4079978547f34205ae4bbd65288877b495b367397f3381a90c82c42528f420064a7ef140ccd>

DASHBOARD TAB 1

Top 10 Programming Languages Worked With



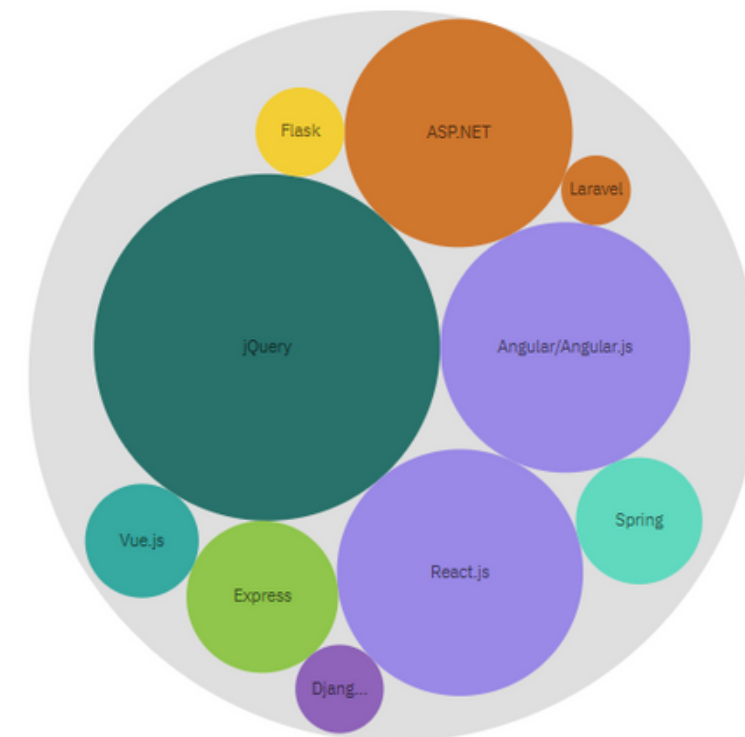
Top 10 Database Worked With



Platform Worked With

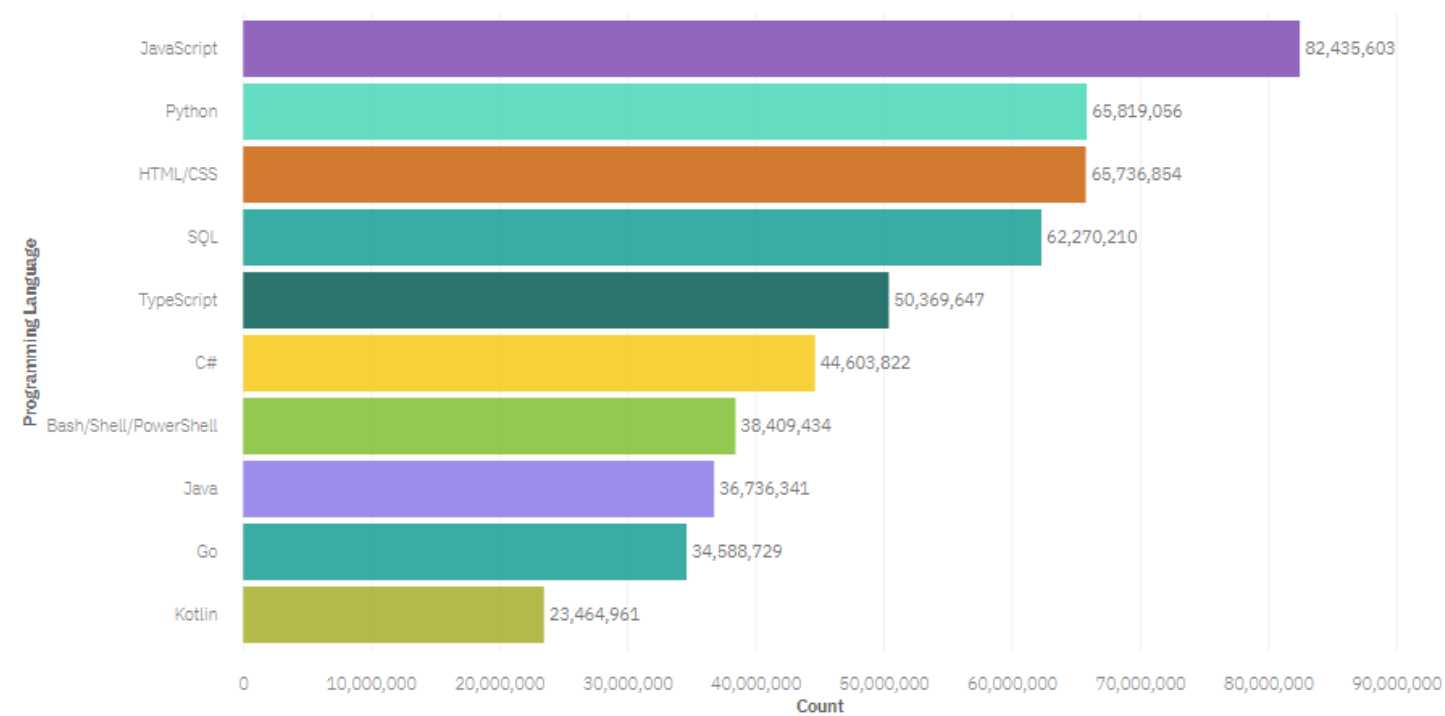


Top 10 Web Frame Worked With

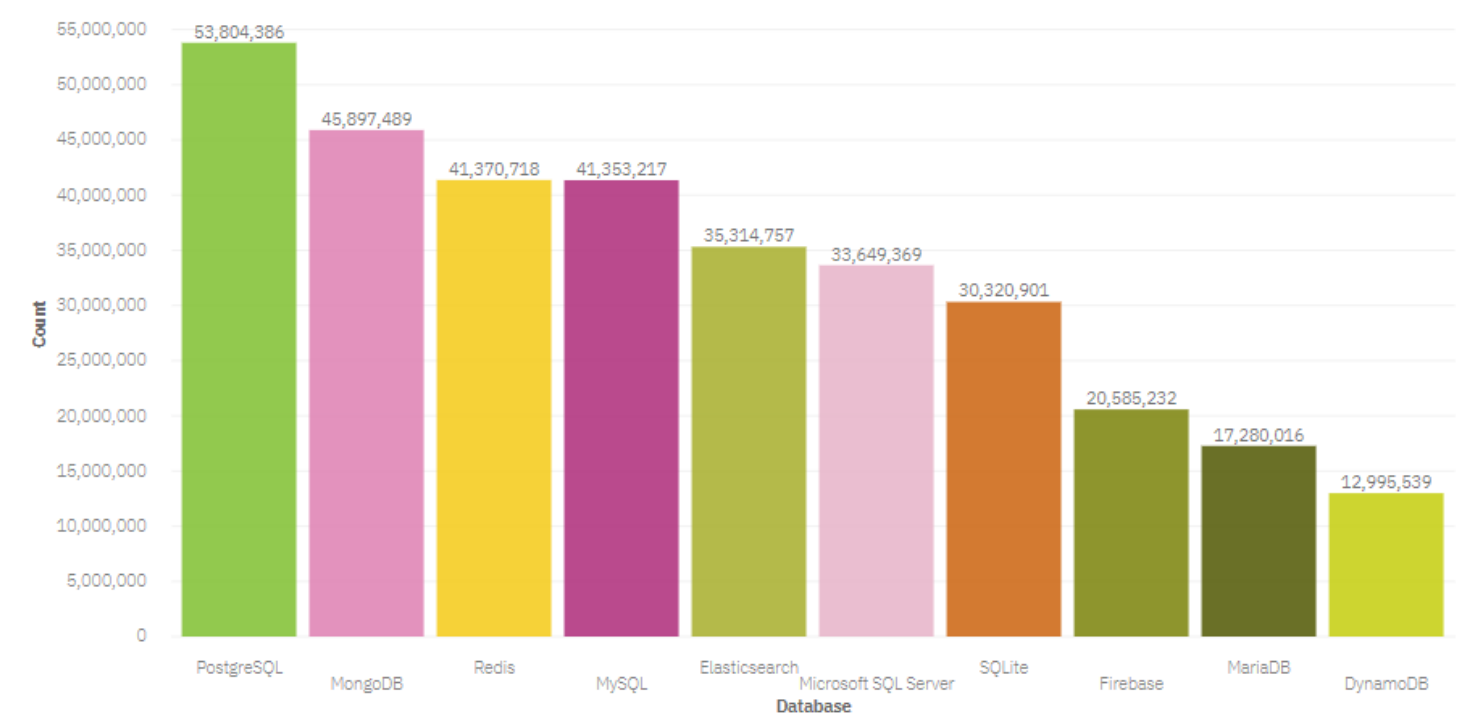


DASHBOARD TAB 2

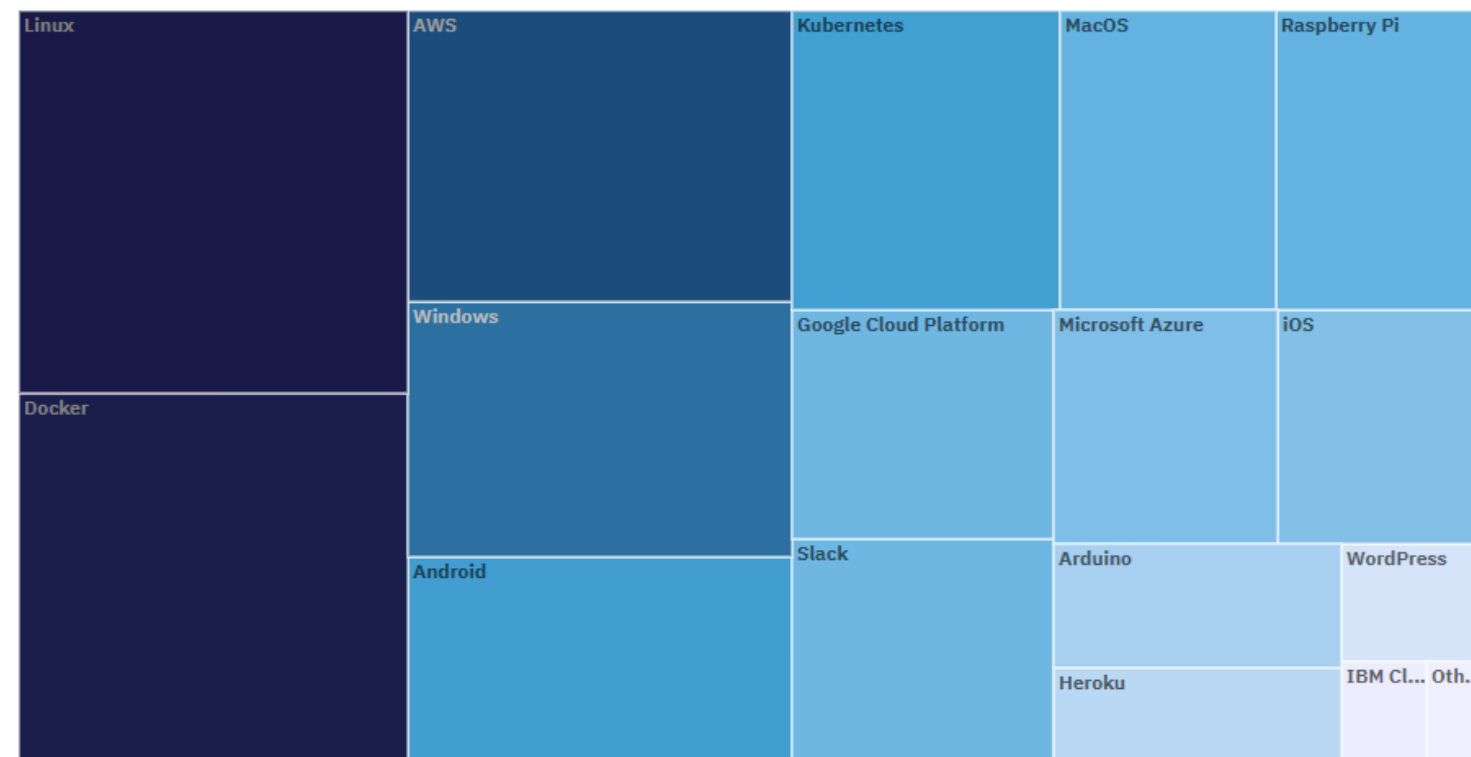
Top 10 Language Desire Next Year



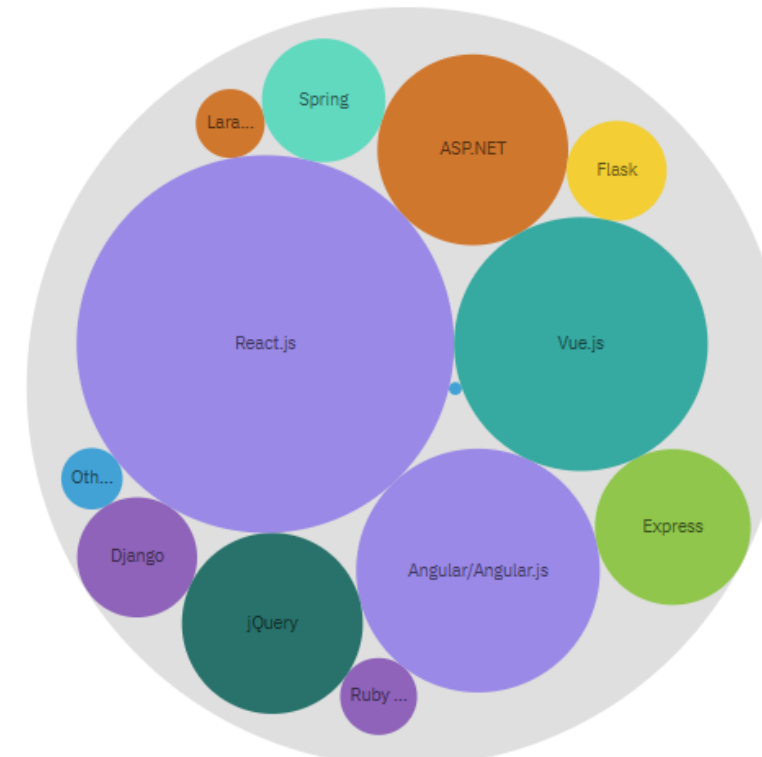
Top 10 Database Desire Next Year



Platform Desire Next Year



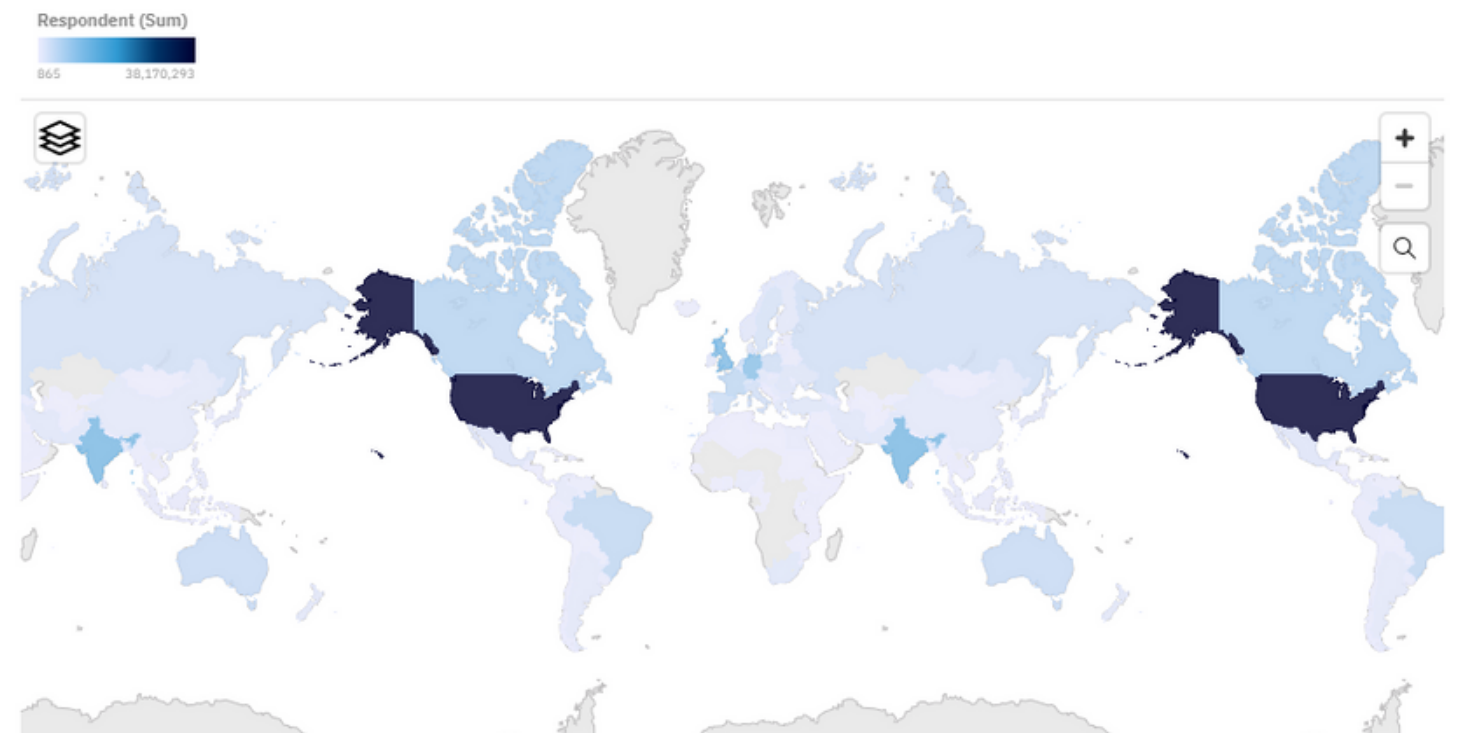
Top 10 Web Frame Desire Next Year



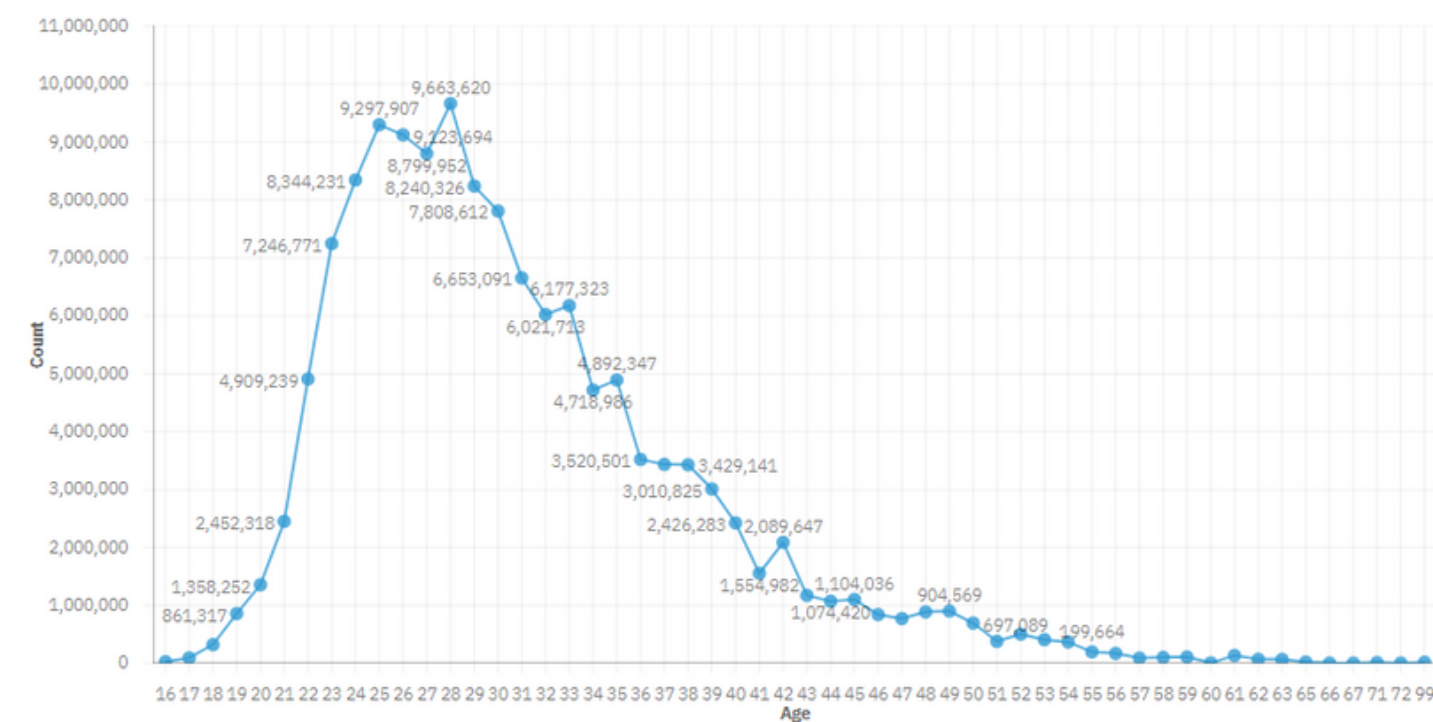
TAB 3

Respondent Classified by Gender

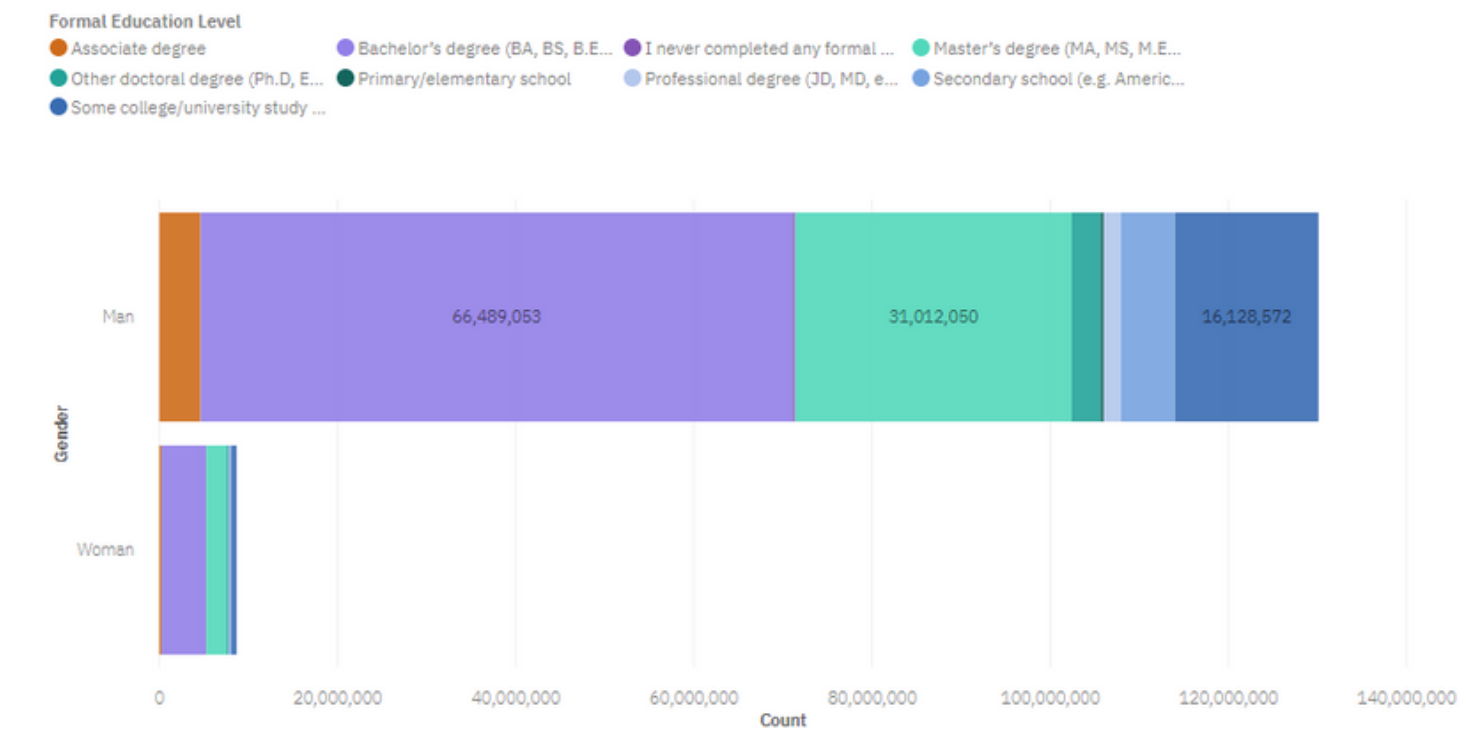
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION

- JavaScript's dominance and PostgreSQL's preference underscore their pivotal roles.
- Stable choices like MySQL and PostgreSQL offer enduring benefits.
- Strategic adaptation to technologies like Elasticsearch and DynamoDB is vital for competitiveness.
- Challenges and opportunities in innovation highlight the need for ethical tech adoption.
- Research may explore implications on job markets and industry competitiveness.
- Python, HTML/CSS, and SQL contribute significantly to these trends, shaping the evolving tech landscape.

OVERALL FINDINGS AND IMPLICATIONS

Findings

- JavaScript maintains dominance in both current and future usage, signaling its continued importance. Python and HTML/CSS also exhibit strong consistency in popularity.
- PostgreSQL stands out as the most desired database for the next year, indicating a shift in preference. Linux, Docker, and AWS remain popular platform choices, with Linux leading the list.
- The majority of respondents are male, and individuals aged 20-30 are the most represented. Most respondents, regardless of gender, have a bachelor's degree.

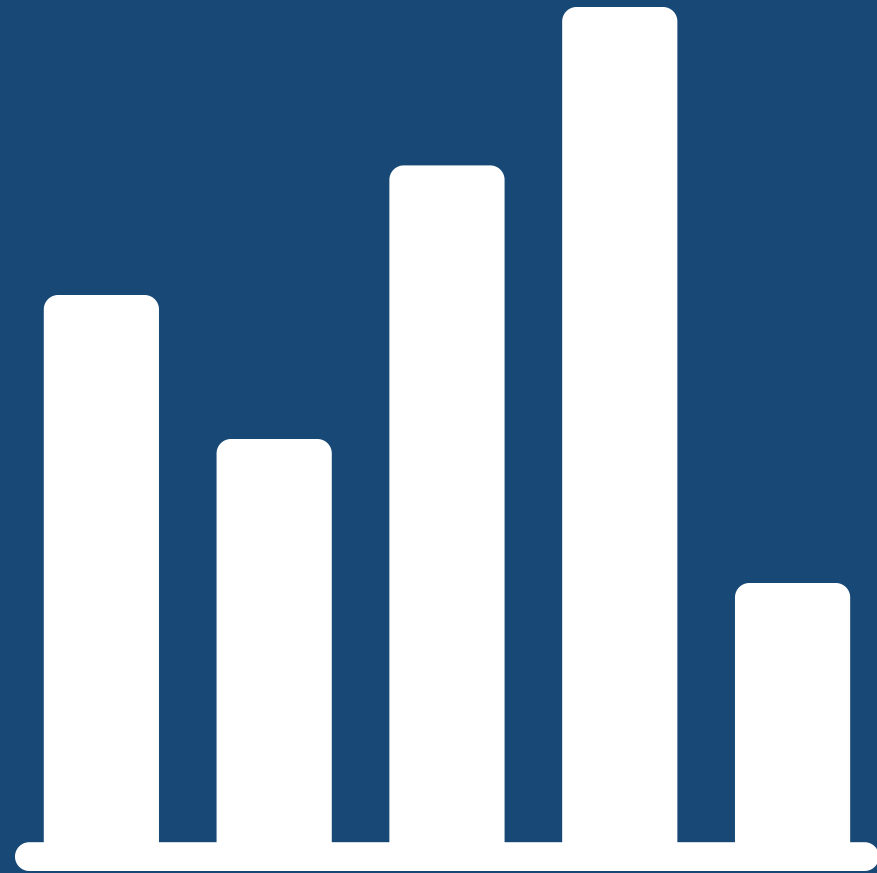
Implications

- Organizations should prioritize JavaScript, Python, and HTML/CSS for development projects, considering their consistent popularity.
- The increasing desire for PostgreSQL suggests a potential shift in the database landscape, prompting organizations to consider its adoption.
- Recognizing the dominant male demographic and the prevalence of young adults with bachelor's degrees is essential for tailoring tech initiatives and outreach programs.

CONCLUSION

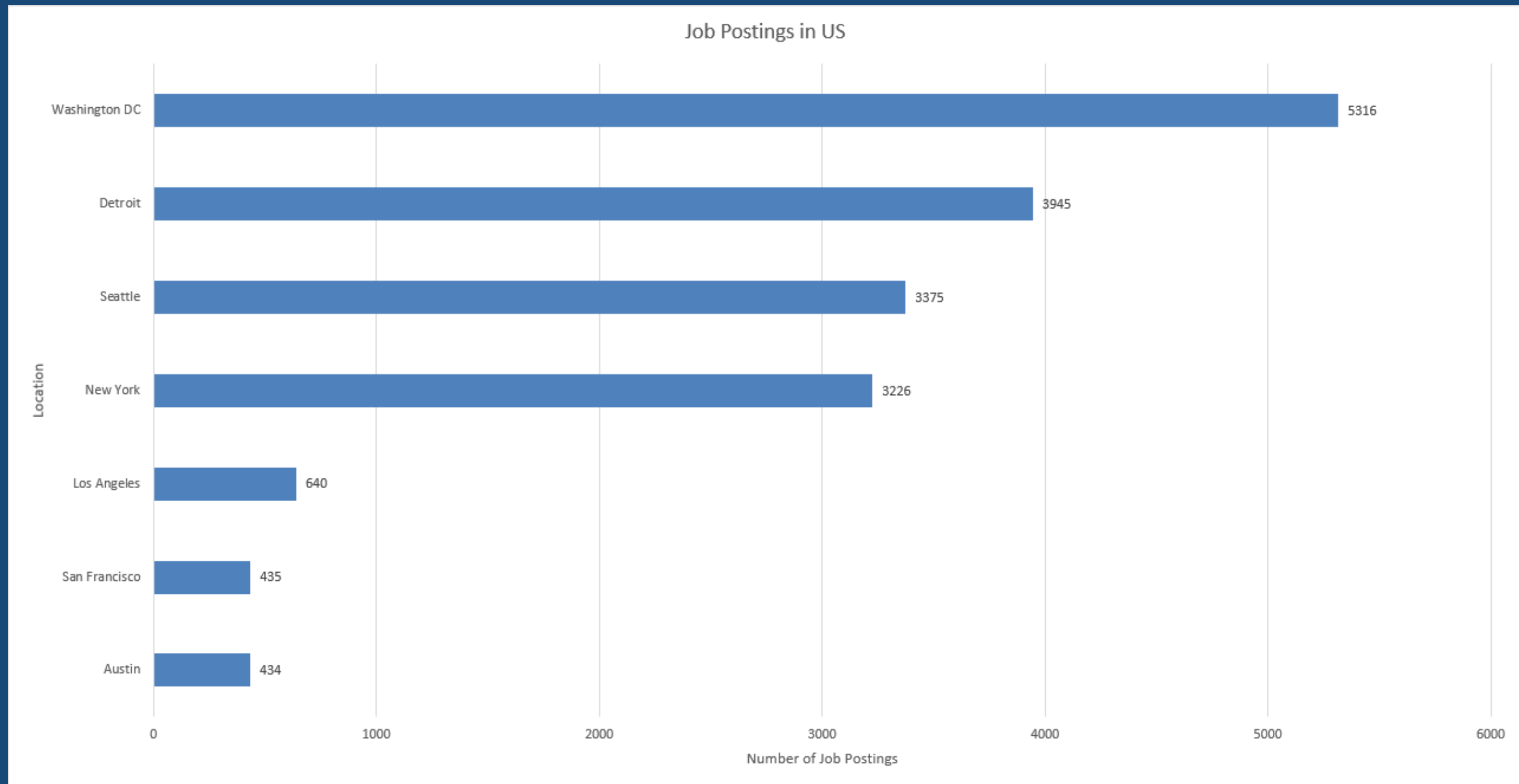
- Our analysis offers a snapshot of the trend of current and future tech landscape.
- Emphasize JavaScript proficiency, consider PostgreSQL adoption, and align with popular platforms like Linux, Docker, and AWS.
- The desire for emerging technologies underscores the need for adaptability and innovation in staying competitive.
- Addressing the male-dominated demographic and focusing on education initiatives can contribute to a more inclusive and skilled workforce for the future. Addressing the male-dominated demographic and focusing on education initiatives can contribute to a more inclusive and skilled workforce for the future.

APPENDIX



- The following are additional charts that are relevant for the analysis phase.

JOB POSTINGS



SALARY BY PROG. LANGUAGES

