

Technology Trends

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OUTLINE



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

EXECUTIVE SUMMARY



- Programming Languages and Database Trends
- Survey on demographics
- Technological disparities across nations
- Gender disparities in employment opportunities



INTRODUCTION



About:

- Examining trends in software development

Purpose:

- Determine future skill requirements
- Identify the most in-demand programming languages
- Highlight the top database skills sought after in the industry
- Explore the most popular Integrated Development Environments (IDEs)

Audience:

- Human Resources and IT Leaders



METHODOLOGY



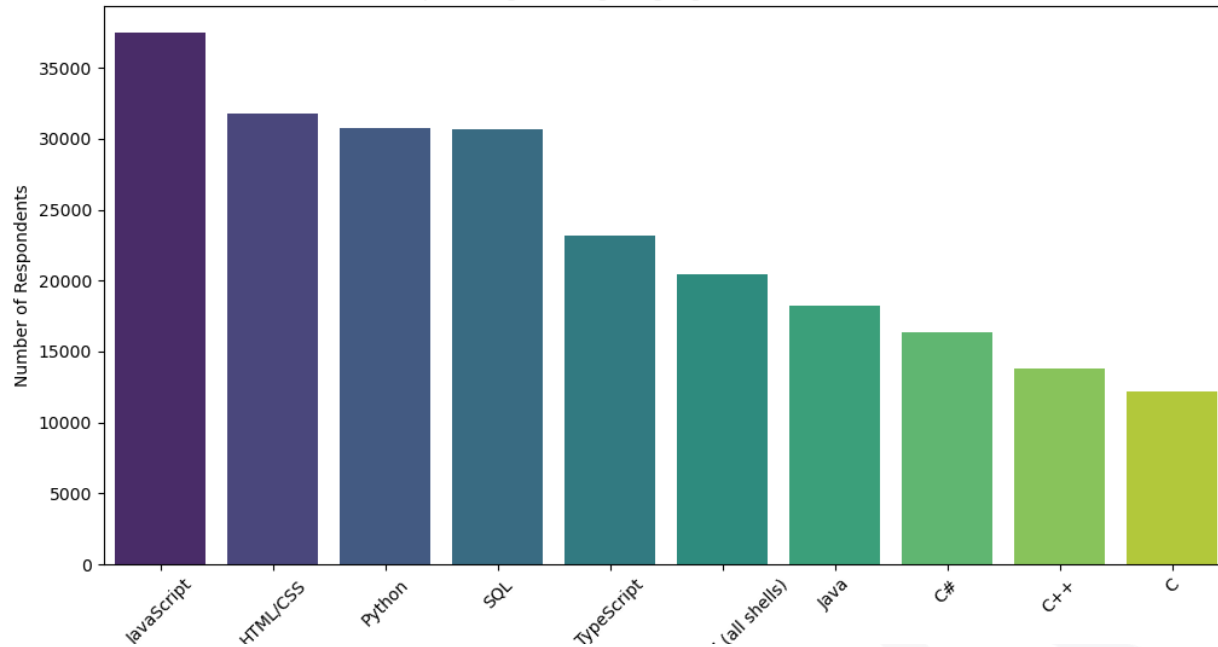
- Data Collection Sources:
- Stack Overflow Developer Survey 2019
- GitHub Job Listings
- Programming Languages and Annual Salary Data
- Data Exploration
- Data Cleaning
- Data Visualization
- Final Presentation

PROGRAMMING LANGUAGE TRENDS

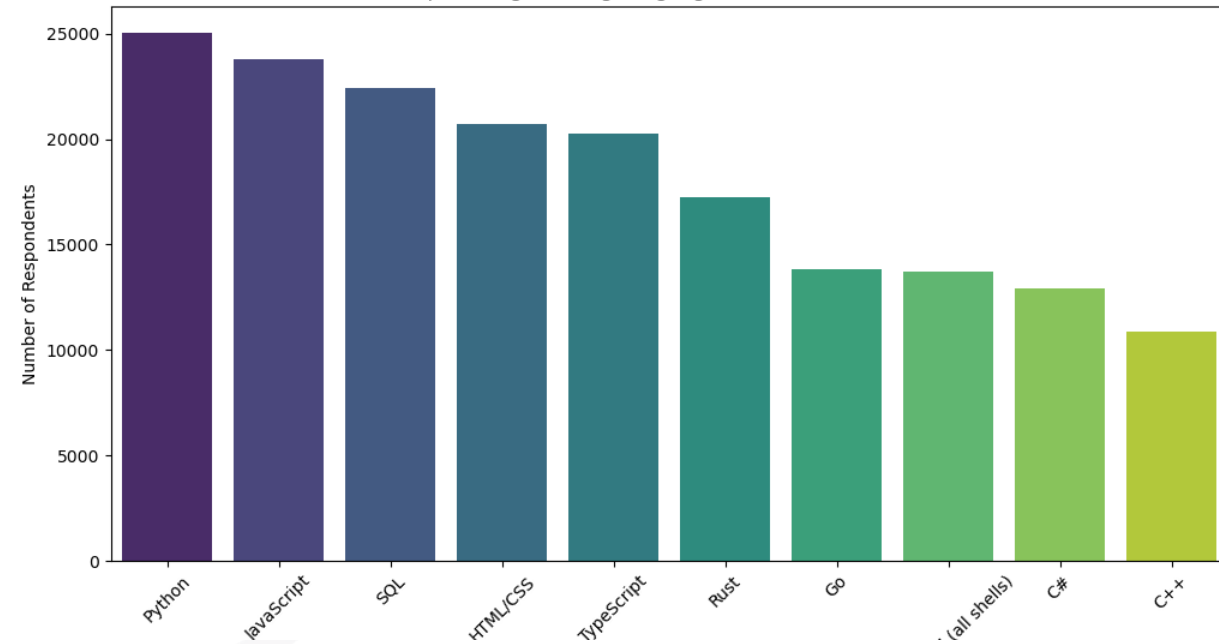
Current Year

Next Year

Top 10 Programming Languages for the Current Year



Top 10 Programming Languages for the Current Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

The visualizations show which programming languages are most popular now and which are expected to grow in the future.

Implications

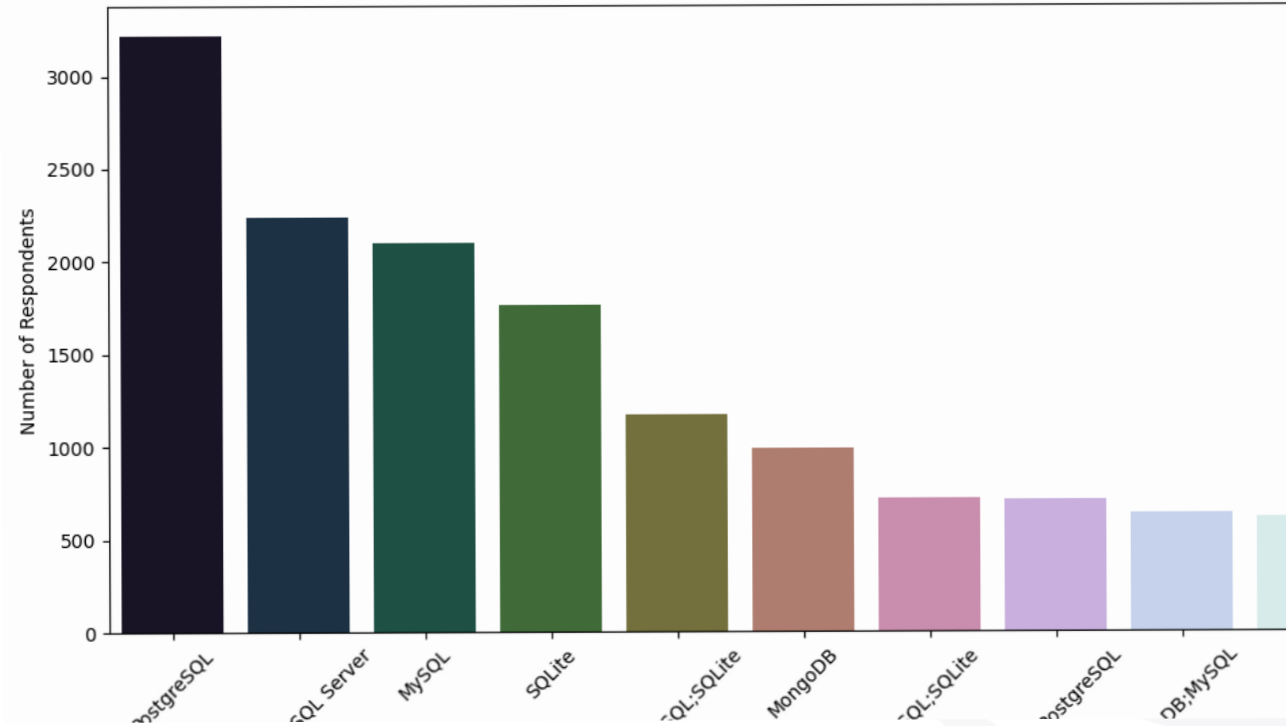
High current usage indicates strong job market demand, while languages with expected growth may present career opportunities for learning and specialization.



DATABASE TRENDS

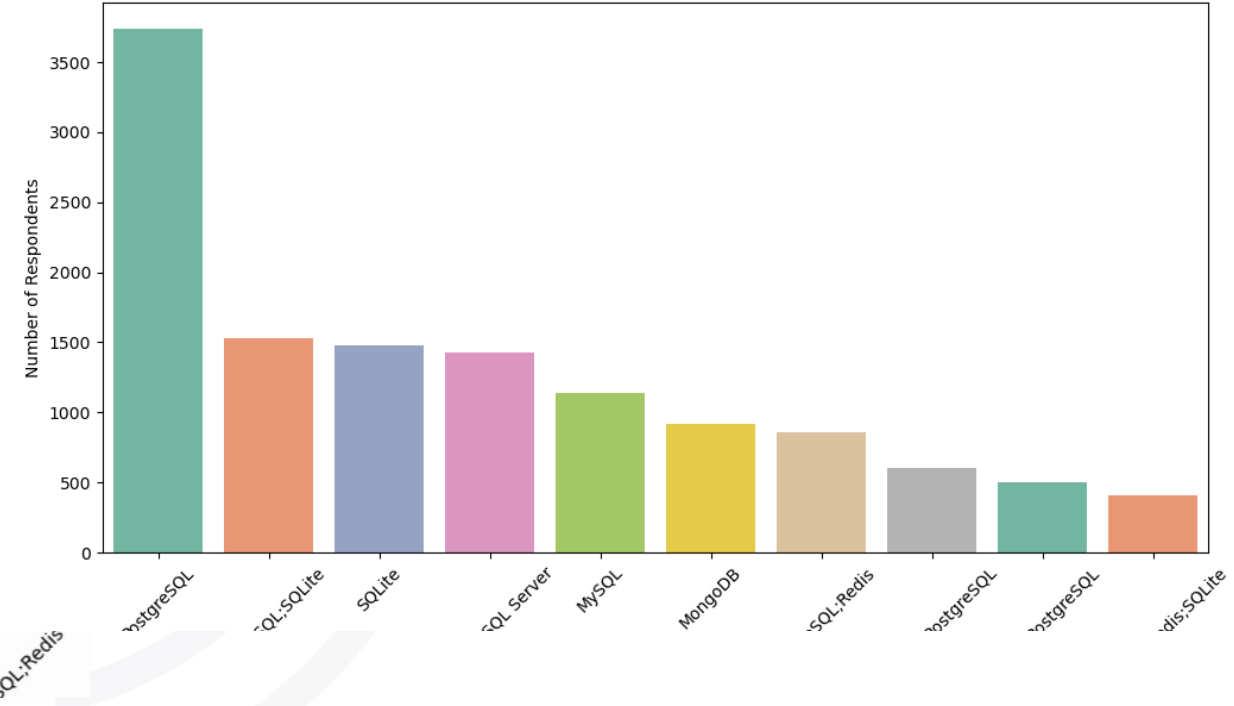
Current Year

Top 10 Databases in Use



Next Year

Top 10 Anticipated Databases for the Future



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

Top 10 Databases in Use:

- The bar chart for the current year indicates that certain databases like SQL Server, MySQL, PostgreSQL, and MongoDB are widely adopted.
- SQL Server and MySQL show the highest number of respondents, signifying their strong market presence.
- Top 10 Anticipated Databases for the Future:
 - The bar chart for anticipated future use suggests that databases such as PostgreSQL, MongoDB, and NoSQL databases are expected to gain more traction.
 - A noticeable trend shows that some currently less popular databases are projected to become more in-demand.

Implications

Current Trends:

- Databases that are already popular (e.g., SQL Server and MySQL) are critical for professionals in the field, suggesting strong job prospects and continued relevance.

Future Outlook:

- The projected growth in demand for databases like PostgreSQL and NoSQL solutions indicates that learning these technologies could be advantageous for long-term career growth.
- Professional Development:
 - Staying updated with these trends can help developers align their skills with industry needs, enhancing employability and opening opportunities in high-demand areas.

DASHBOARD

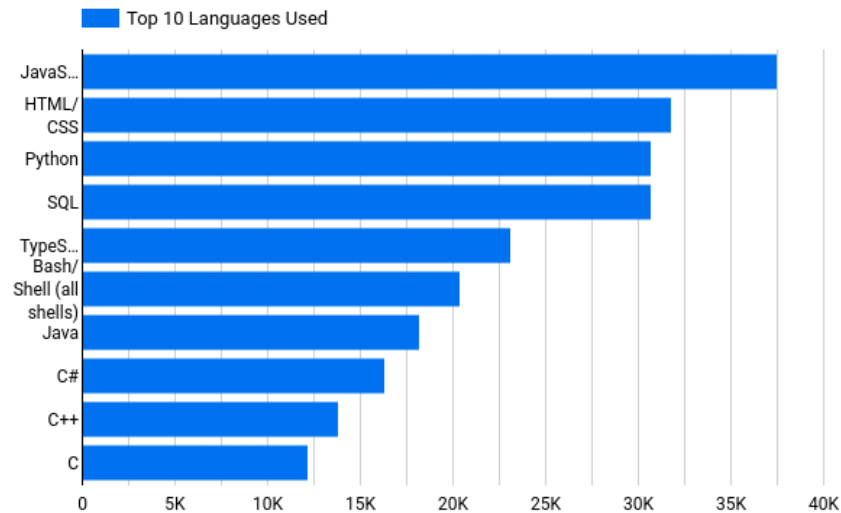


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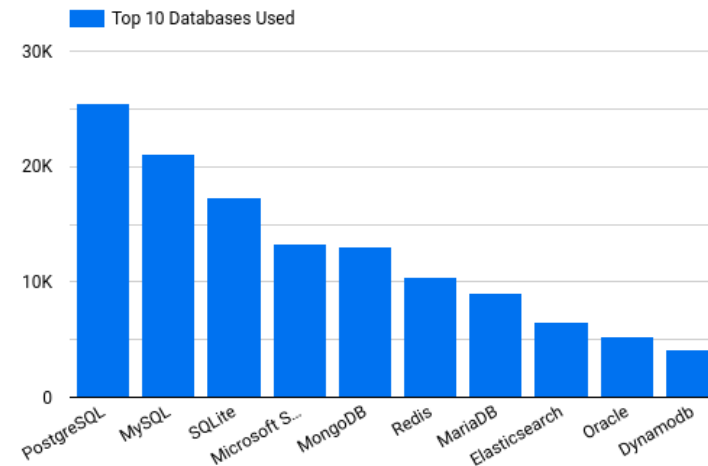


DASHBOARD TAB 1

Top 10 Languages Used by LanguageHaveWorkedWith



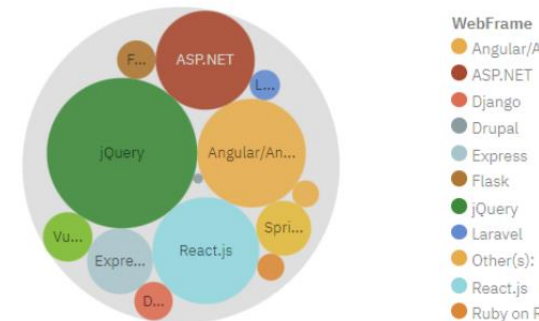
Top 10 Databases Used by DatabaseHaveWorkedWith



Top 10 Web Frameworks Used

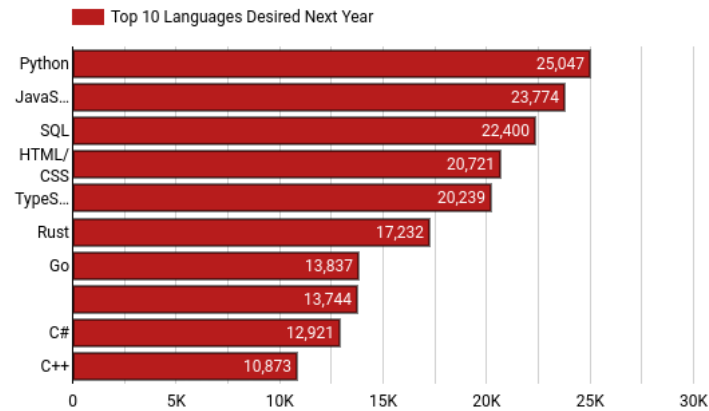


Top 10 WebFrames Used

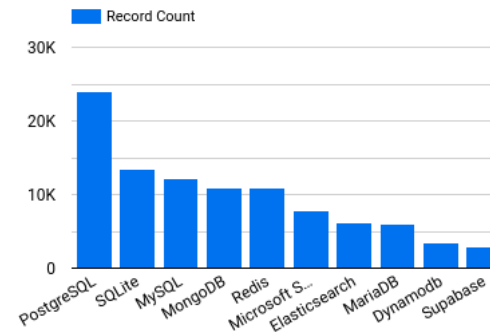


DASHBOARD TAB 2

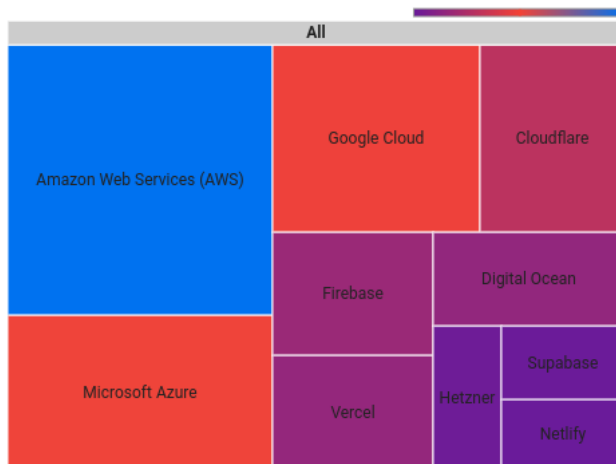
Top 10 Languages Desired Next Year



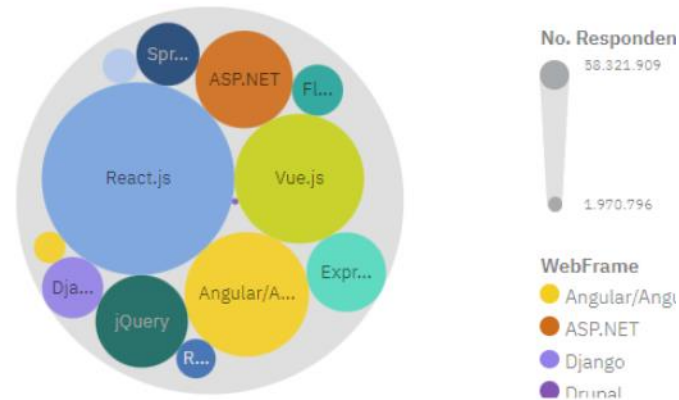
Record Count by DatabaseWantToWorkWith



Top 10 Desired Platforms

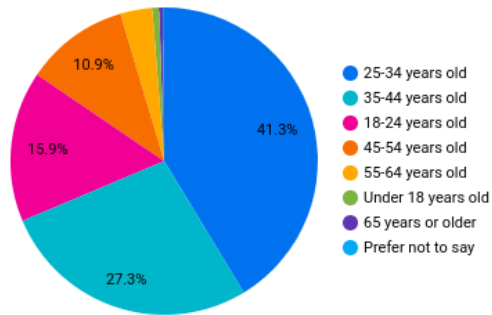


Top 10 WebFrame Next Year



DASHBOARD TAB 3

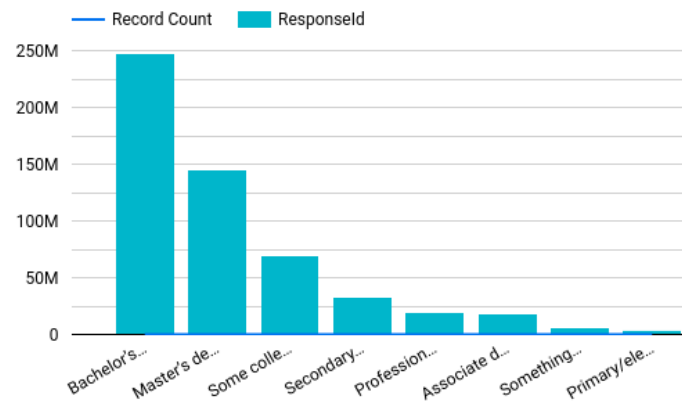
Respondents by Age



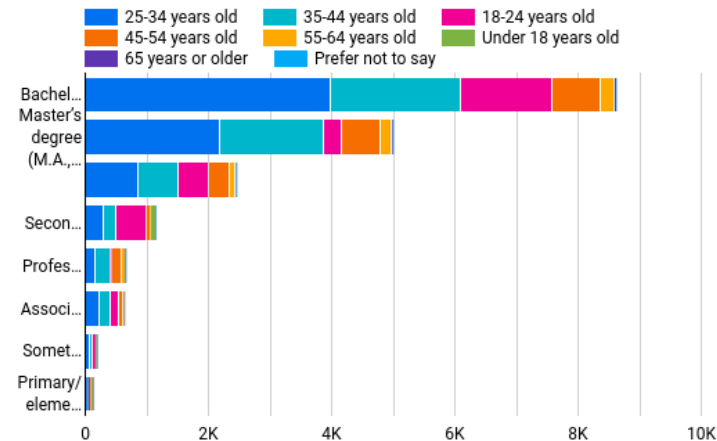
Respondent Locations



Record Count and Responsed by EdLevel



Respondent Count by Age, Classified by Education Level



DISCUSSION



- Data Insights: Highlighted trends reveal opportunities in emerging programming languages and databases.
- Challenges: Rapid tech evolution and regional disparities in adoption create skill gaps.
- Opportunities: Upskilling in trending technologies and fostering diversity can address workforce needs.
- Future Outlook: Ongoing trend analysis and collaboration among stakeholders are vital for aligning skills with market demands.



OVERALL FINDINGS & IMPLICATIONS

Findings

- Current Trends: SQL Server, MySQL, PostgreSQL, and MongoDB are widely adopted databases.
- Future Trends: PostgreSQL, MongoDB, and NoSQL databases are projected to grow in demand.

Implications

- Current popular databases indicate strong job market relevance.
- Learning emerging databases like NoSQL could benefit long-term career growth.
- Keeping skills updated with these trends enhances employability.

CONCLUSION



Key Insights:

- Programming languages and databases with strong current adoption offer immediate career opportunities.
- Emerging technologies like NoSQL databases and growing programming languages present avenues for specialization and long-term growth.

Industry Trends:

- Continuous learning and adaptation to market shifts are essential for career advancement.
- Emphasizing in-demand skills aligns professionals with industry needs, enhancing employability.

Strategic Recommendations:

- For organizations: Invest in upskilling employees in trending technologies to stay competitive.
- For professionals: Focus on learning technologies with projected growth to future-proof careers.

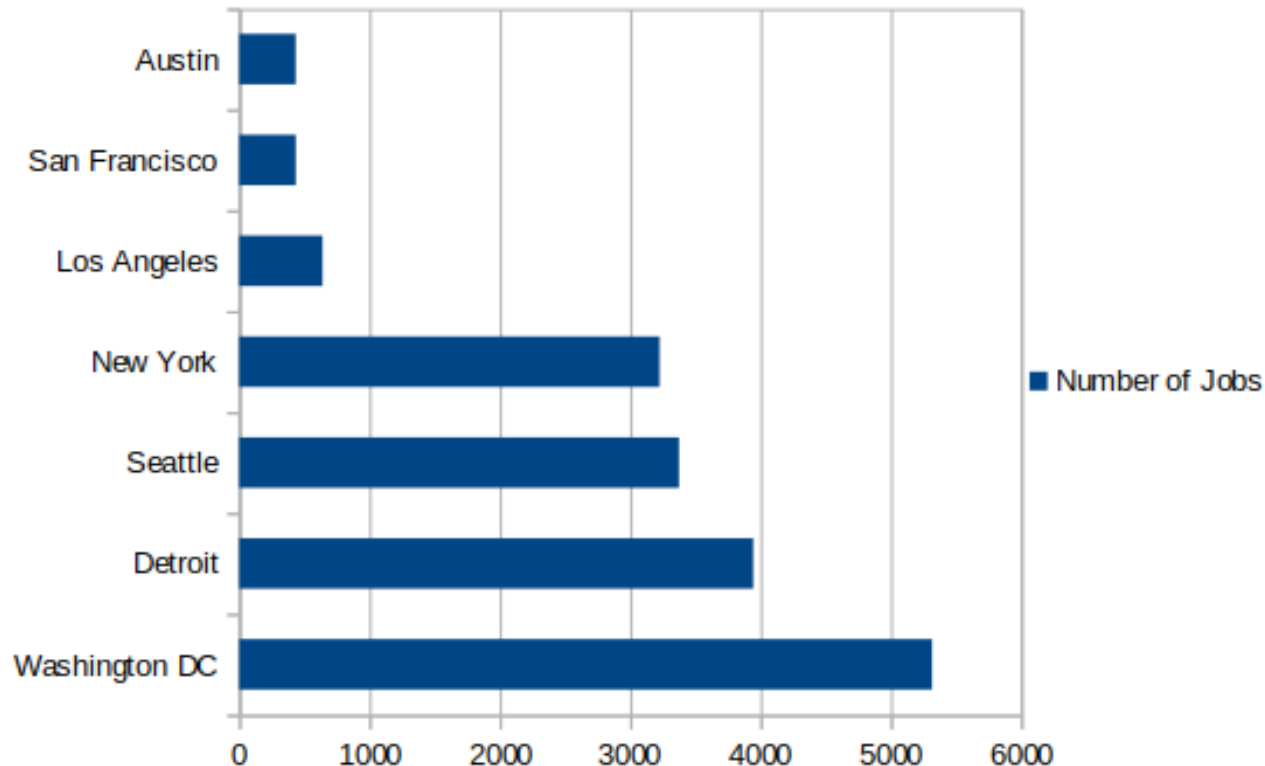
Looking Ahead:

- By staying informed of these trends, both professionals and organizations can make data-driven decisions to navigate the evolving technology landscape successfully.



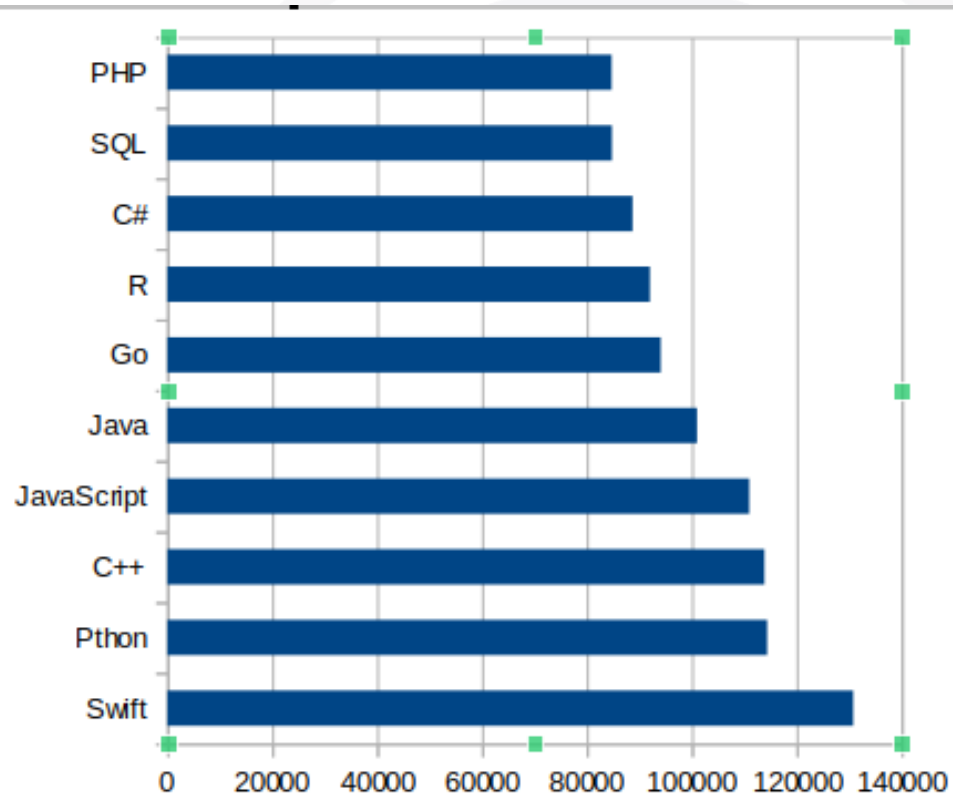
JOB POSTINGS

In Module 1 you have collected the job posting data using Job API in a file named "job-postings.json". Order the bar chart in the descending order of the number of jobs.



POPULAR LANGUAGES

In Module 1 you named “popular” the bar chart in the file



using web scraping in a file using a bar chart here. Order

