

Trending Technologies: Stack Overflow Developer Survey

2025



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OUTLINE



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EXECUTIVE SUMMARY



- **Top Programming Languages in Demand:** JavaScript, HTML/CSS, SQL, Bash/Shell/PowerShell, Python.
- **Top Database Skills in Demand:** MySQL, Microsoft SQL Server, PostgreSQL, SQLite, MongoDB.
- **Popular Platforms:** Windows, Linux, Docker, AWS, Slack.
- **Popular Web Frameworks:** jQuery, Angular/Angular.js, React.js, ASP.NET, Express.
- **Future Technology Trends:**
 - Python rises to the third position, followed by SQL and TypeScript.
 - Redis and Elasticsearch rank in the Top 5.
 - React.js leads, with Vue.js emerging as a new contender.



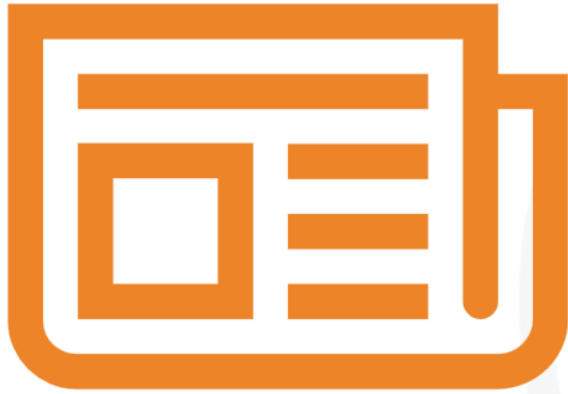
INTRODUCTION



- The programming and technology landscape is rapidly evolving, with new trends emerging annually.
- The **Stack Overflow Developer Survey 2019** provides insights into these trends, covering technologies, demographics, and career aspirations.
- Nearly **90,000 developers** from **179 countries** participated in the survey.
- Key areas of focus include programming languages, databases, platforms, and web frameworks.



METHODOLOGY



- Data sourced from the **Stack Overflow Survey** (January 23 – February 14, 2019), involving **88,883 developers**.
- Analysis and visualization conducted using **IBM Cognos Analytics**.
- Techniques included **Web Scraping, Dataset Exploration, Data Wrangling, Exploratory Data Analysis, and Data Visualization**.



PROGRAMMING LANGUAGE TRENDS

Current Year

- JavaScript, HTML/CSS, and SQL dominate.
- Python surpasses Java in popularity.

Next Year

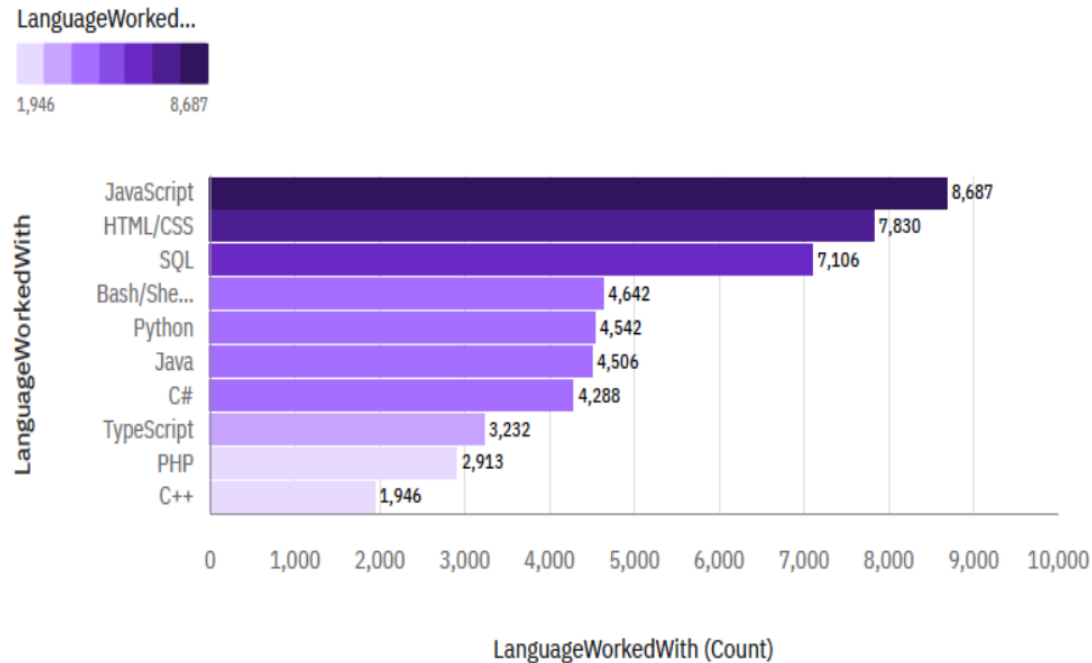
- Python, SQL, and TypeScript show significant growth.
- Emerging languages like TypeScript gain traction.



PROGRAMMING LANGUAGE TRENDS

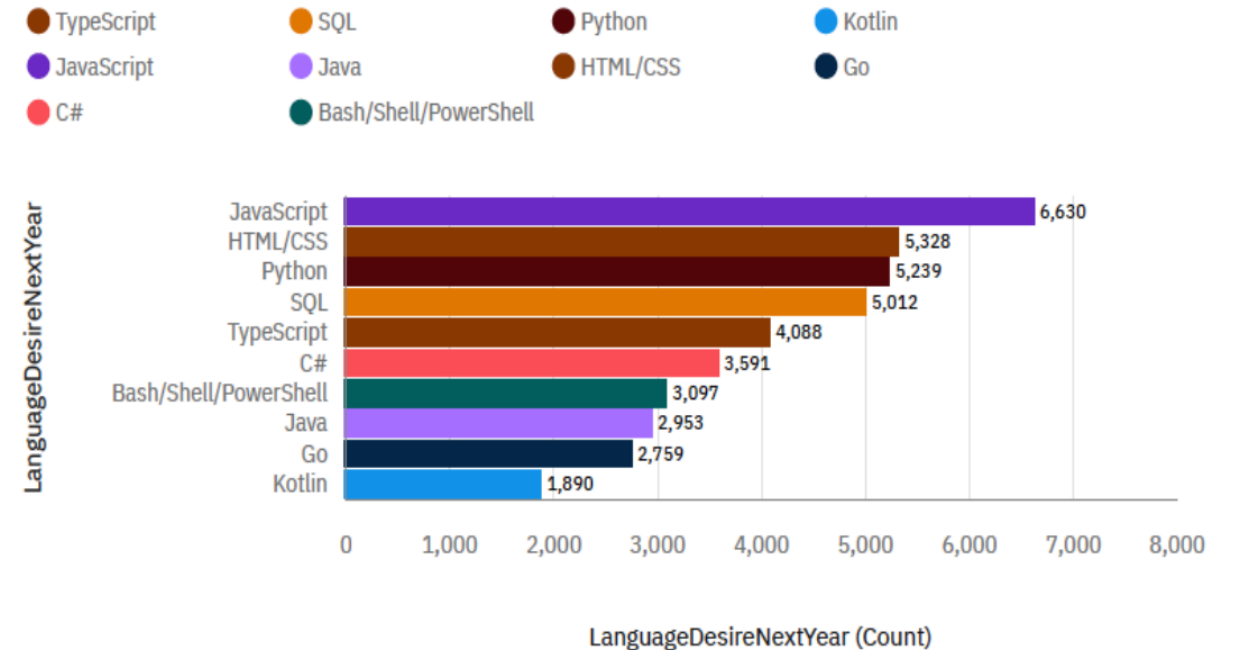
2019

Top 10 Language Worked With



Following Year

Top 10 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript and HTML/CSS remain essential for web development.
- SQL's prominence highlights the importance of data management.
- Python's versatility drives its rapid adoption.

Implications

- Mastery of JavaScript and HTML/CSS is crucial for developers.
- SQL skills are vital across industries.
- Python's growth reflects its applicability in diverse fields.



DATABASE TRENDS

Current Year

- MySQL leads, followed by PostgreSQL and Microsoft SQL Server.
- MongoDB is the top NoSQL database.

Next Year

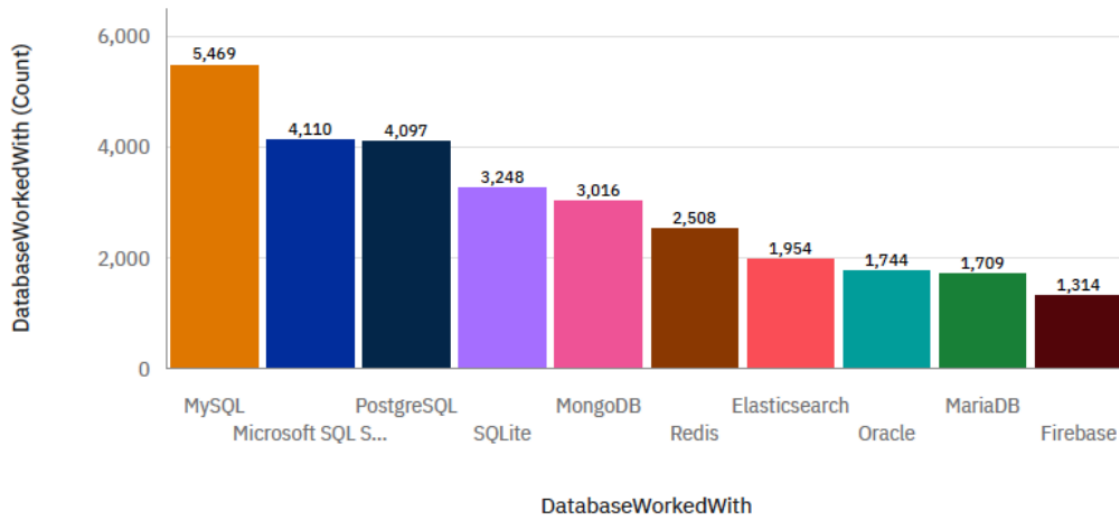
- Redis and Elasticsearch rise in popularity.
- Demand for flexible data models increases.



DATABASE TRENDS

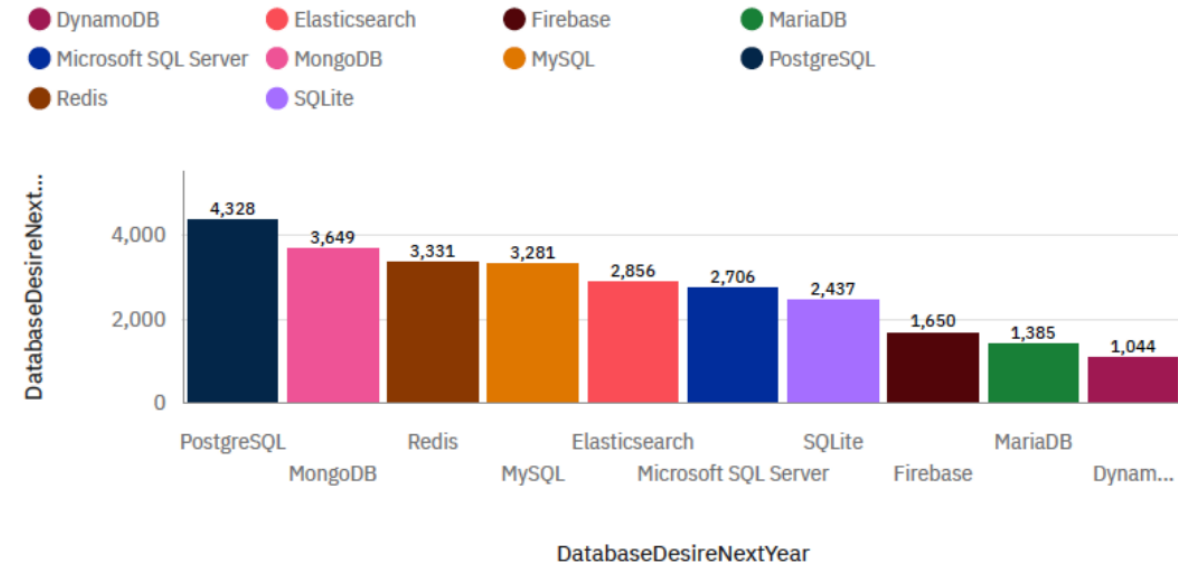
2019

Top 10 Database Worked With



Following Year

Top 10 Database Desire Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Relational databases (MySQL, PostgreSQL) remain dominant.
- NoSQL databases like MongoDB address scalability needs.
- Diverse database systems cater to specific use cases.

Implications

- Relational databases are foundational for data management.
- NoSQL solutions are critical for modern applications.
- Selecting the right database depends on project requirements.



DASHBOARD



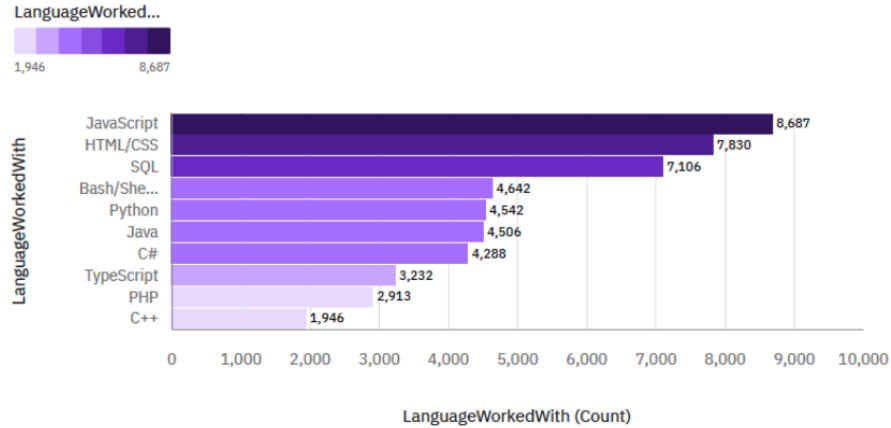
<https://github.com/Canit007/coursera-test/>



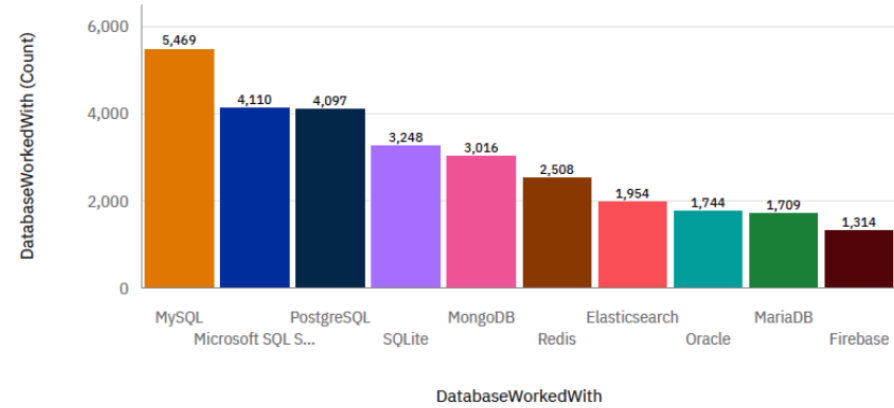
CURRENT TECHNOLOGY USAGE

Current Technology Usage

Top 10 Language Worked With



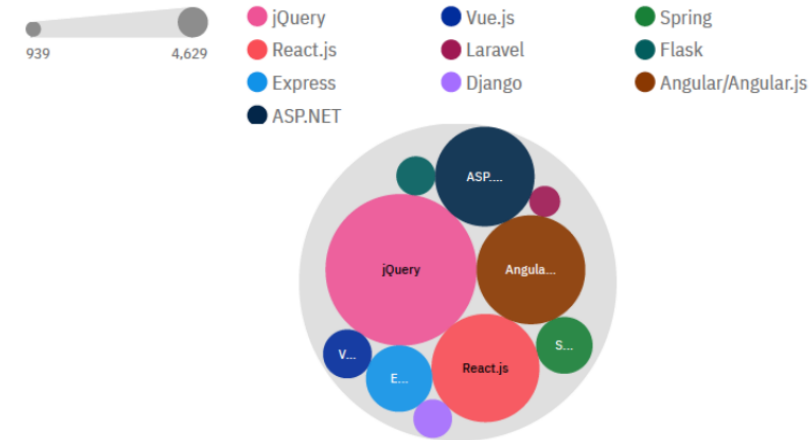
Top 10 Database Worked With



Platform Worked With



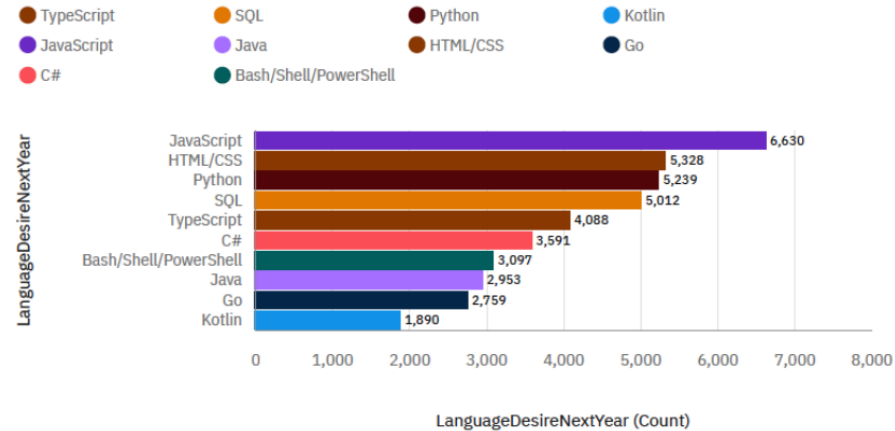
Top 10 Web Frame Worked With



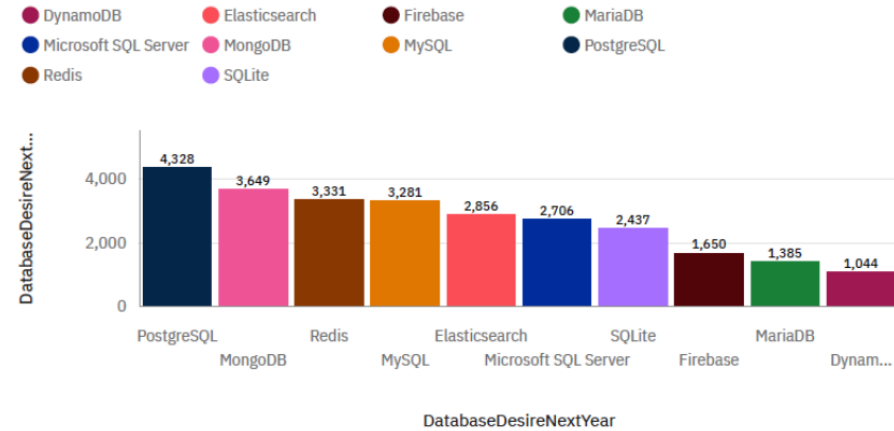
FUTURE TECHNOLOGY TREND

Future Technology Trend

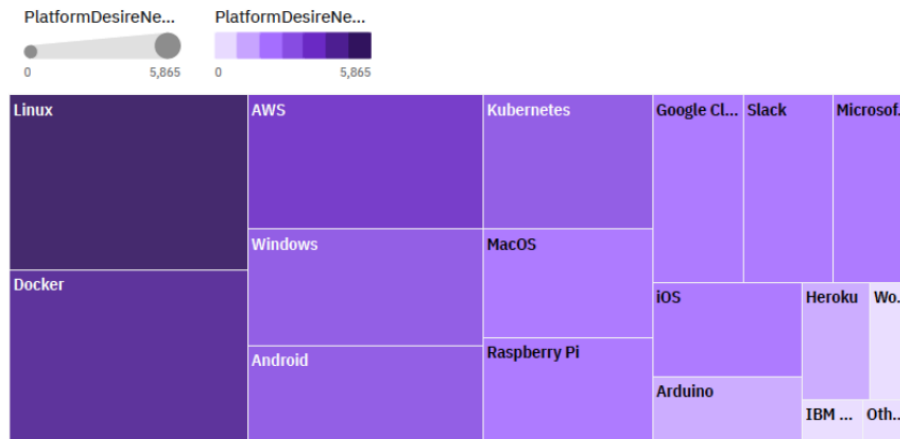
Top 10 Language Desire Next Year



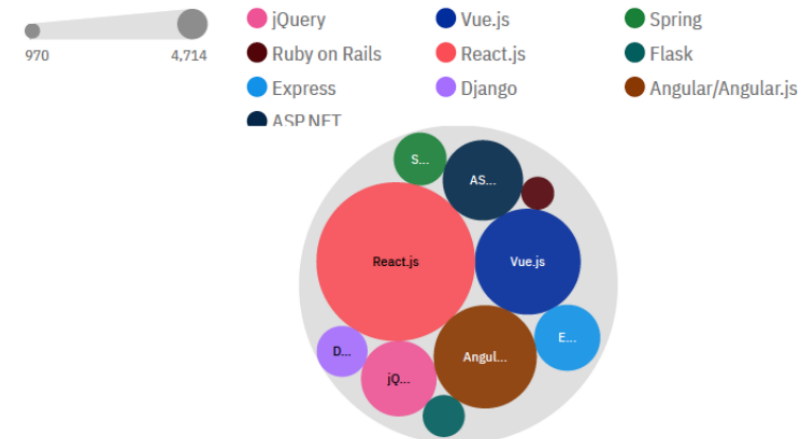
Top 10 Database Desire Next Year



Platform Desire Next Year



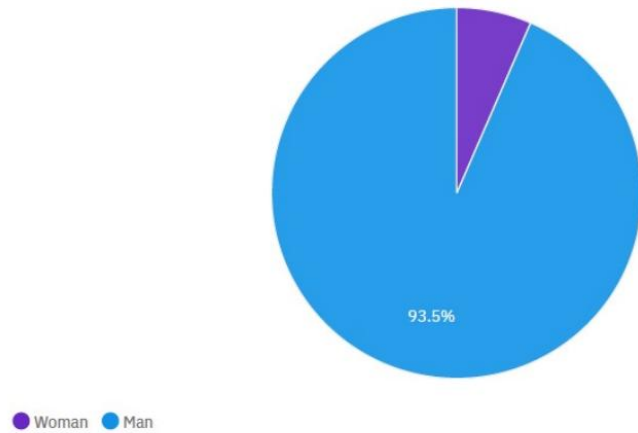
Top 10 Web Frame Desire Next Year



DEMOGRAPHICS

Demographics

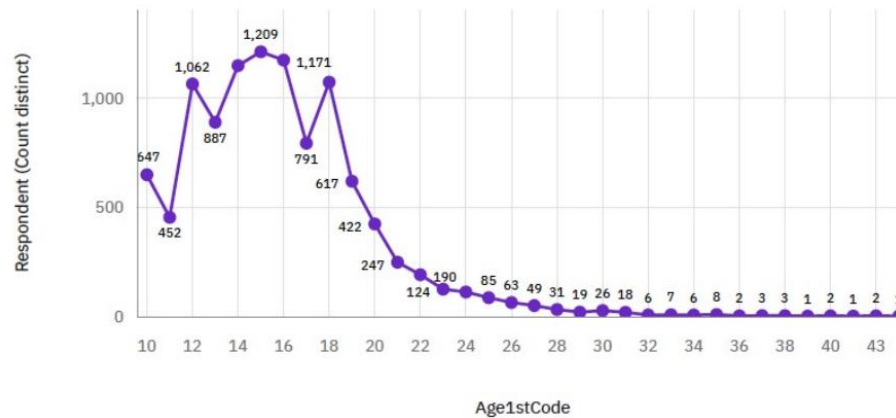
Respondent classified by Gender



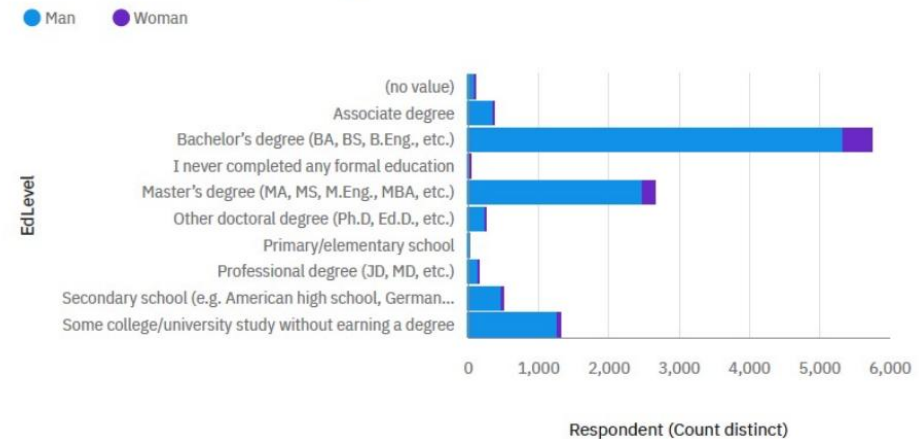
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender and Formal Education Level



DISCUSSION



- JavaScript, HTML/CSS dominate; MySQL leads among databases.
- Web development is central to modern programming.
- Highlights client-side scripting, framework trends, and tech evolution.



OVERALL FINDINGS & IMPLICATIONS

Findings

- Web development dominates, with JavaScript and HTML/CSS as core technologies.
- Data management is critical, with MySQL and MongoDB leading.
- Python's rise reflects its broad applicability.

Implications

- Web technologies are central to the developer ecosystem.
- Database diversity requires adaptable skill sets.
- Industry standardization simplifies collaboration.



CONCLUSION



- The programming landscape is dynamic, with web development and data management at its core.
- Developers must stay updated with evolving technologies like Python and NoSQL databases.
- Understanding diverse tools ensures success in modern software projects.

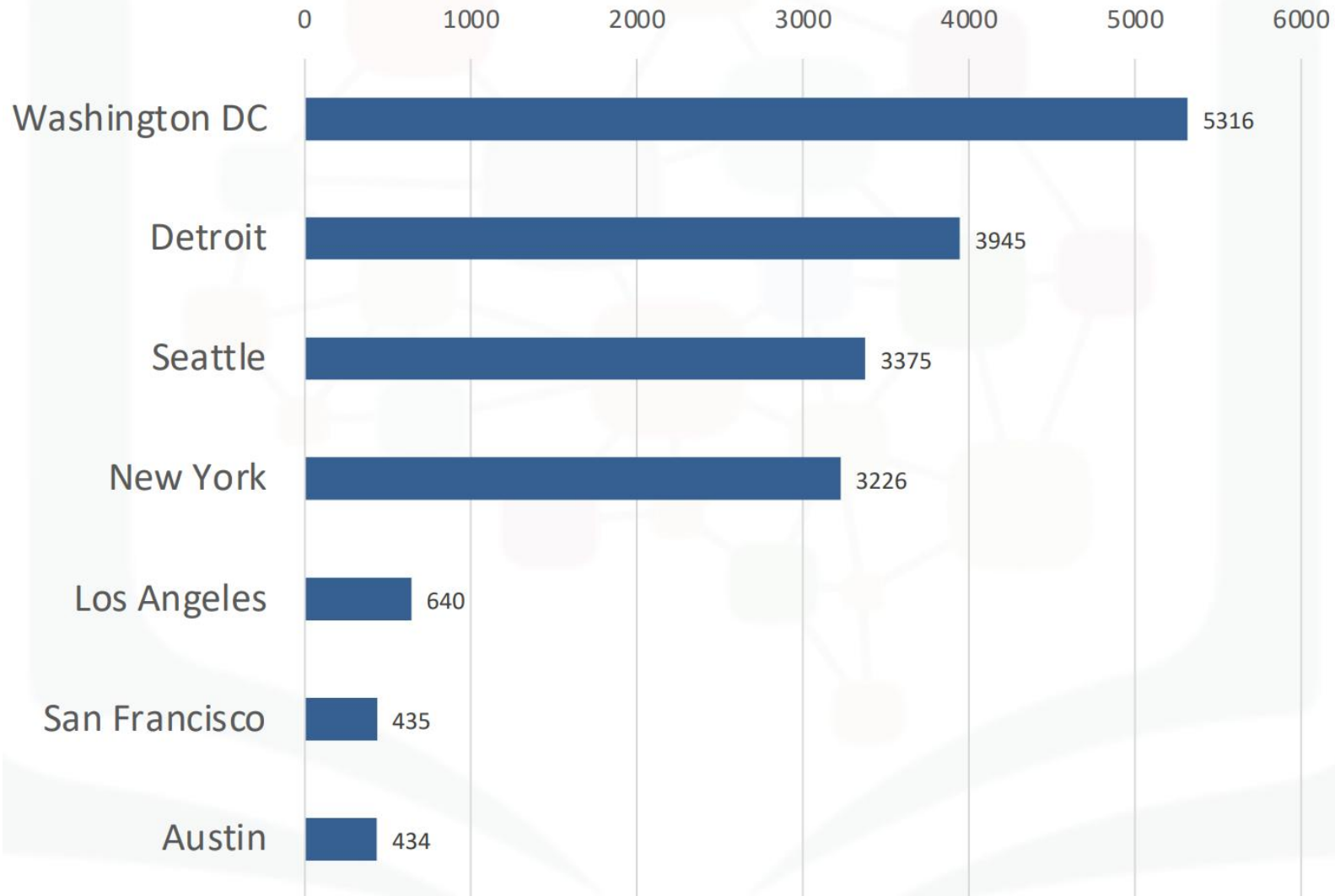
APPENDIX



- A- Job Postings Chart
- B- Popular Languages Chart



A- JOB POSTINGS CHART



B- POPULAR LANGUAGES CHART

