



DEVELOPER SURVEY 2019 ANALYSIS

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OUTLINE



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

EXECUTIVE SUMMARY



- Goal of contextualizing and analyzing the data.
- Description of the methodology employed.
 - Gathering data.
 - Analysis of the collected data.
 - Creation of data visualizations.
- Presentation of results accompanied by graphs and trends.
- Discussion of overarching findings and implications derived from the presented results.
- Final conclusions drawn from the conducted research.

INTRODUCTION



- The limitation of the survey results lies on not representing all members of the developer community since it includes nearly 90,000 developers.
- Still, the annual Developer Survey conducted by Stack Overflow is the largest and most relevant survey of individuals involved in coding worldwide.
- The survey aims to identify trends that can predict the future direction of developers.
- The survey provides a characterization of developers/coders/programers across the globe.

METHODOLOGY



- Collect survey data & explore its content
 - Web Scraping.
 - APIs.
 - Request library.
- Data Wrangling
- Exploratory data analysis
 - Analyzing data distribution.
 - Handling outliers.
 - Correlations.
- Data Visualization
 - Highlight distribution of data, relationships, the composition and comparison of data.
- Dashboard building



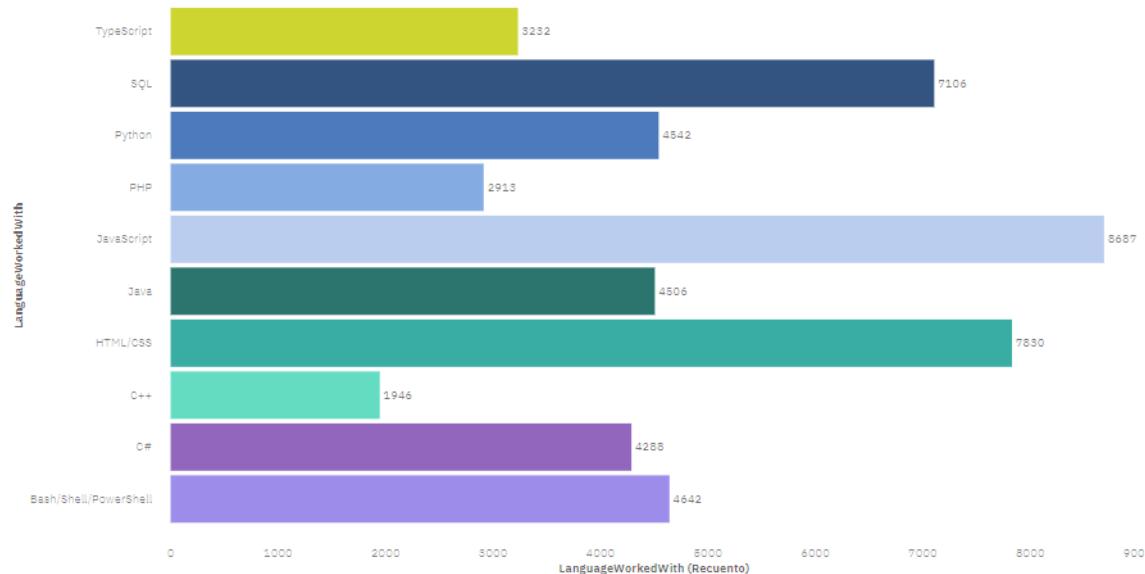
RESULTS



PROGRAMMING LANGUAGE TRENDS

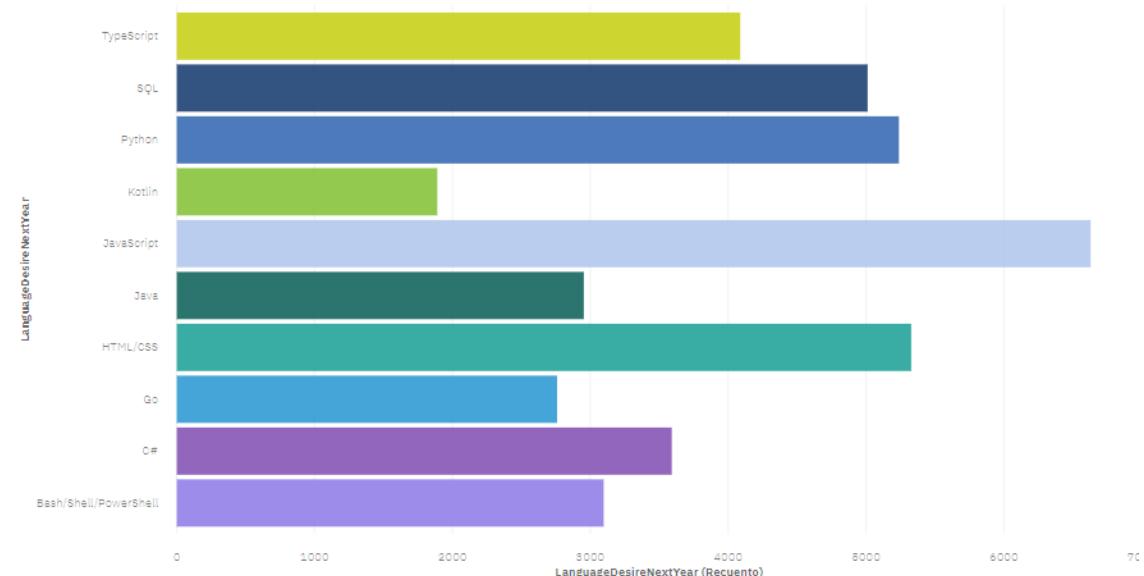
Current Year

Top 10 Programming Languages



Next Year

Top 10 Desired Programming Languages



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

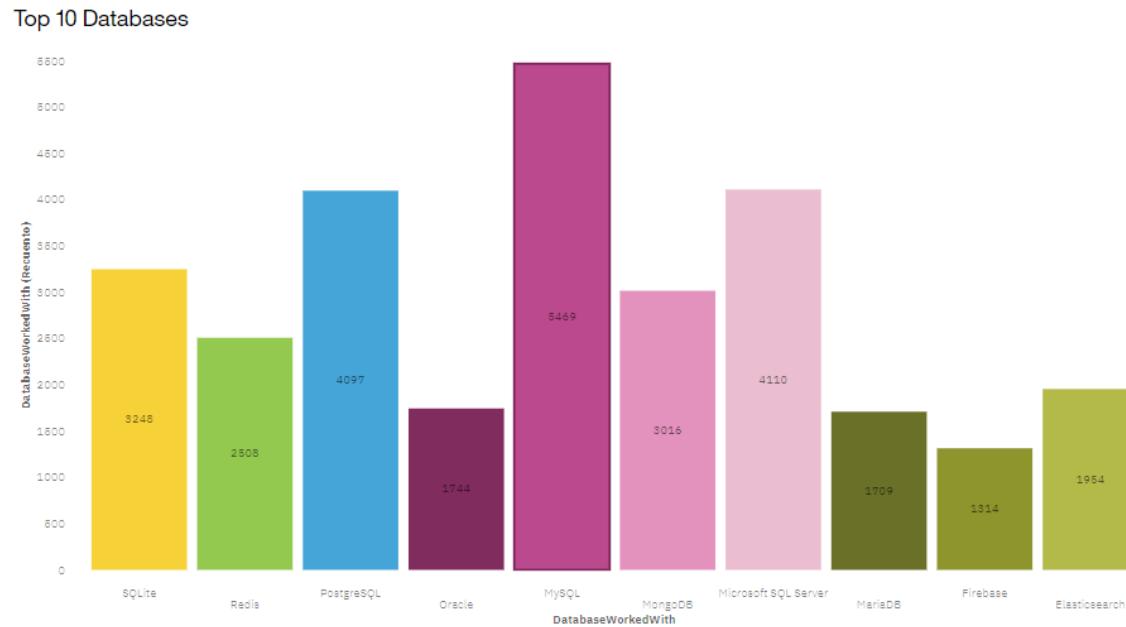
- JavaScript is the current king of programming languages.
- Python might soon dethrone Java.
- There is a high interest for TypeScript

Implications

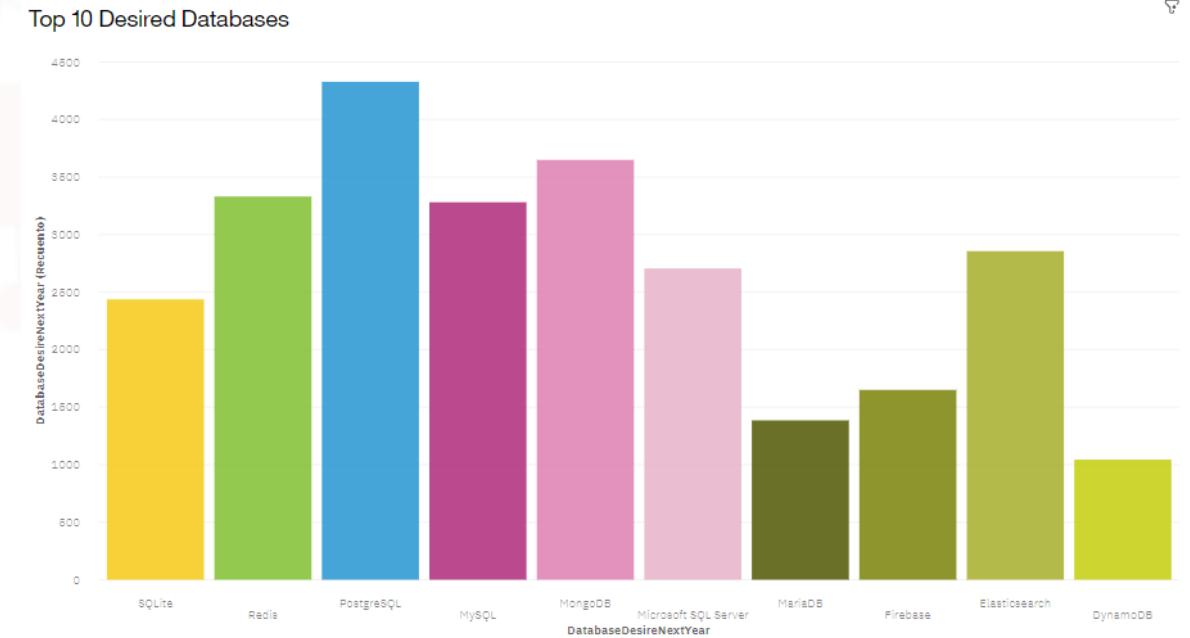
- Developers might migrate to TypeScript from JavaScript.
- The versatility of Python across different industries gives it an advantage over more specialized languages.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the top database.
- SQL Server and SQLite are not as relevant.
- PostgreSQL and MongoDB are increasing in relevance.

Implications

- SQLite and Microsoft are loosing market share.
- PostgreSQL and MongoDB are winning market share.

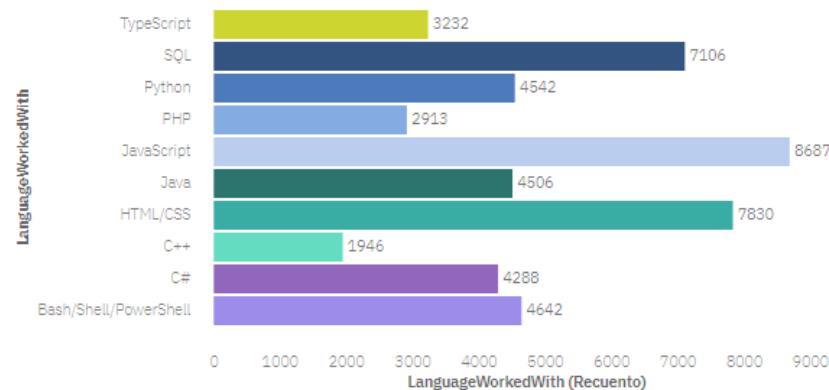
DASHBOARD



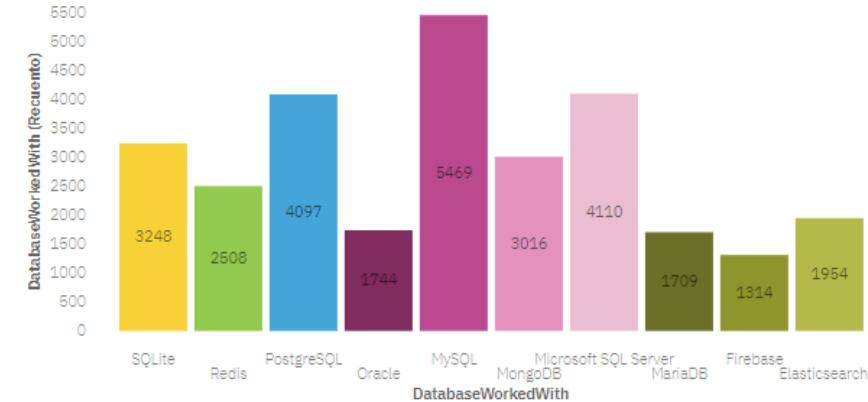
Click here to see the
dashboard : [IBM Cognos](#)

DASHBOARD TAB 1

Top 10 Programming Languages



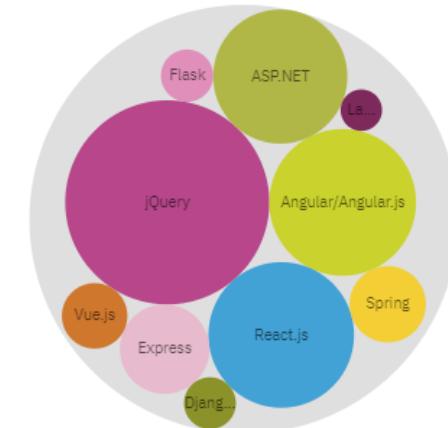
Top 10 Databases



Platforms Interaction

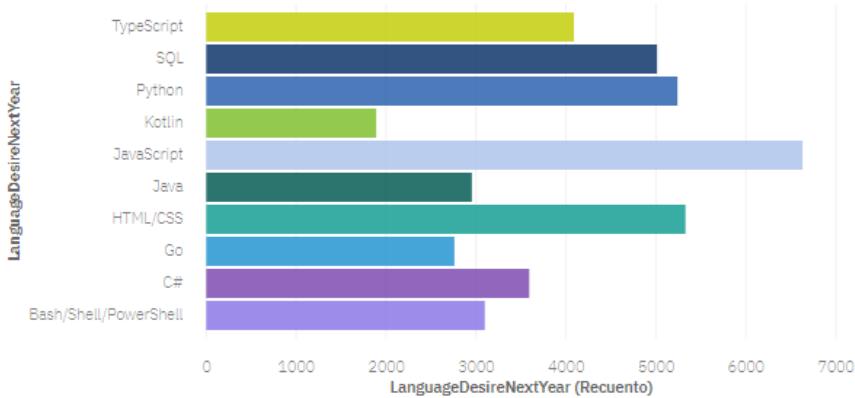


Top 10 Frameworks

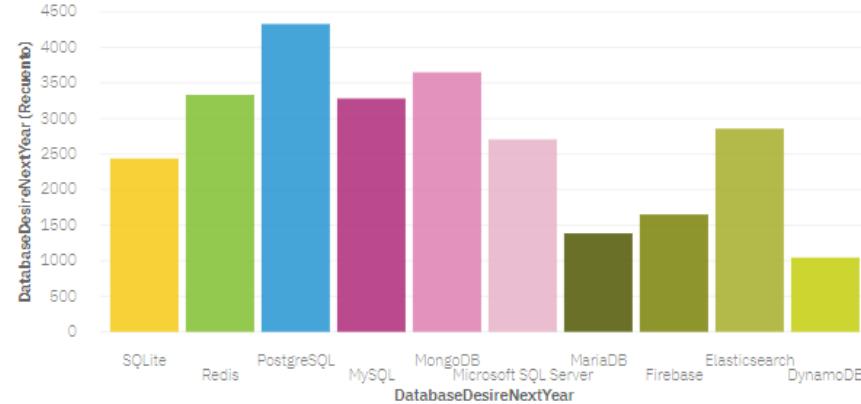


DASHBOARD TAB 2

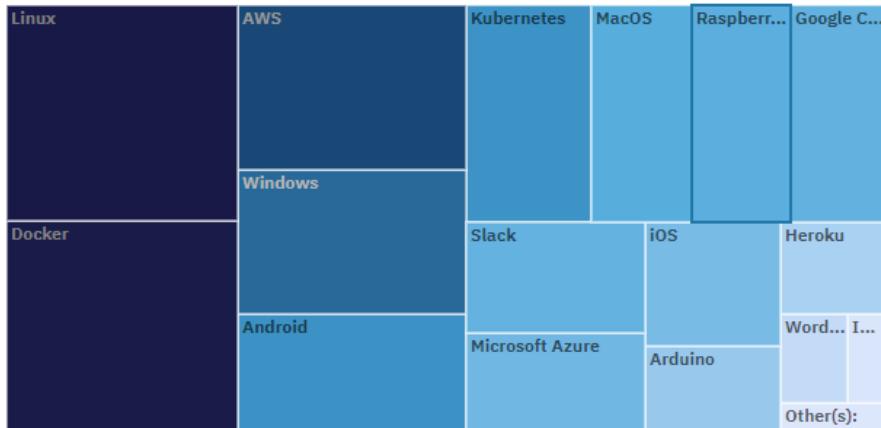
Top 10 Desired Programming Languages



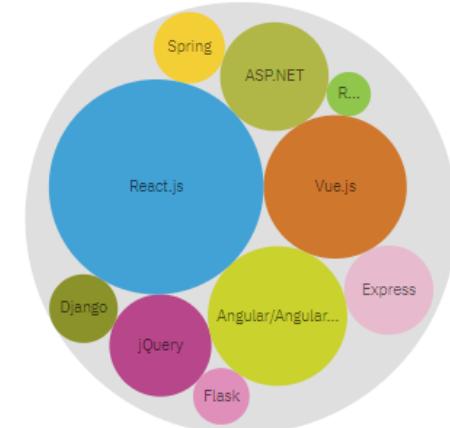
Top 10 Desired Databases



Desired Platforms



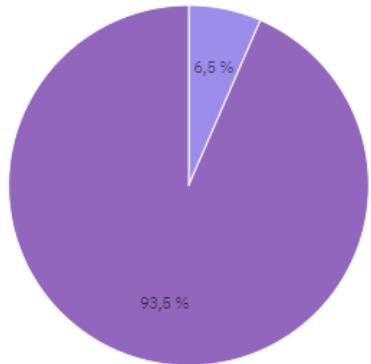
Top 10 Desired Web Frames



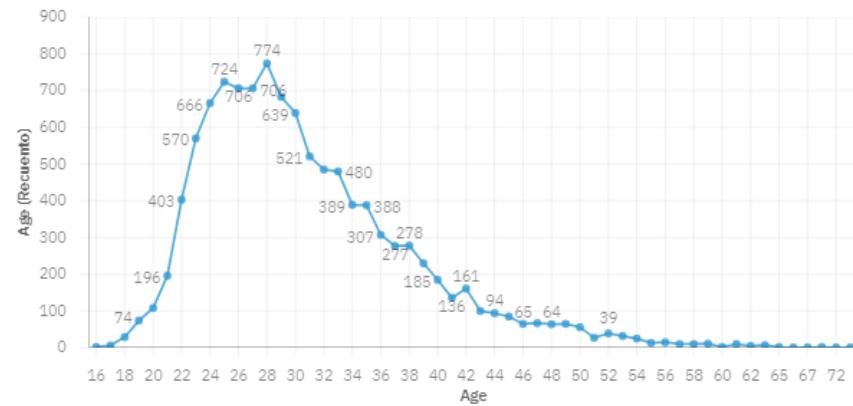
DASHBOARD TAB 3

Respondents by Gender

Gender
● Woman ● Man

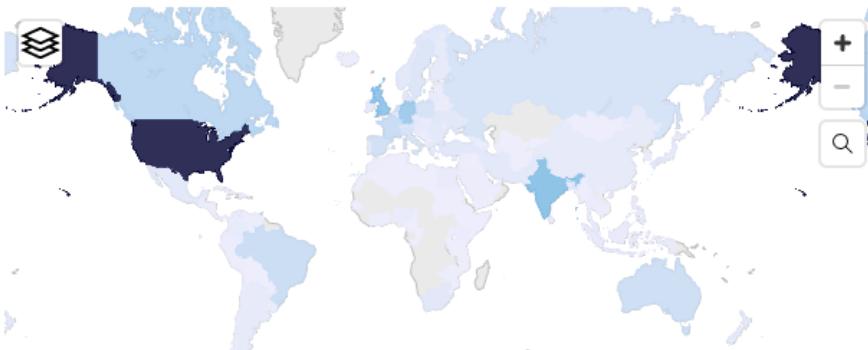


Respondents by Age

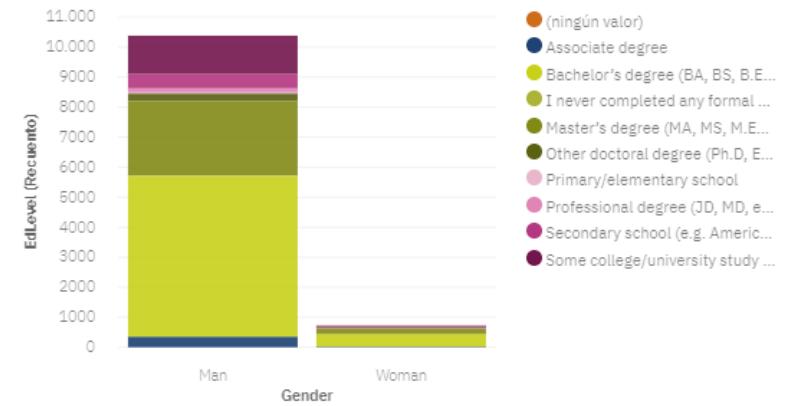


Respondents by Country

Country (Recuento)
1 3058



Education Level by Gender



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- **Programming Languages:**

TypeScript is experiencing notable growth in interest, while Python continues to expand its presence.

- **Databases:**

PostgreSQL and MongoDB are attracting increasing interest from users.

- **Platforms:**

Interest in Slack and Windows is experiencing a significant decline.

- **Web Frameworks:**

Vue.js is gaining substantial interest, with React.js also continuing to grow.

Implications

It is recommended to:

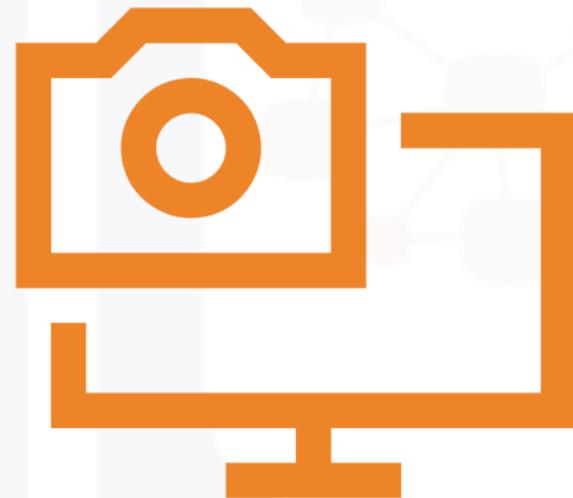
- Maintain current staffing levels for JavaScript and HTML/CSS, but increase the hiring of individuals skilled in TypeScript and Python.
- Increase the hiring of individuals skilled in Redis, Elasticsearch, PostgreSQL, and MongoDB.
- Maintain current staffing levels for ASP.NET, but hire more individuals skilled in Vue.js and React.js.
- Maintain current staffing levels for Linux, while increasing hiring for Docker, AWS, and Android, and reducing staffing for Slack and Windows.

CONCLUSION

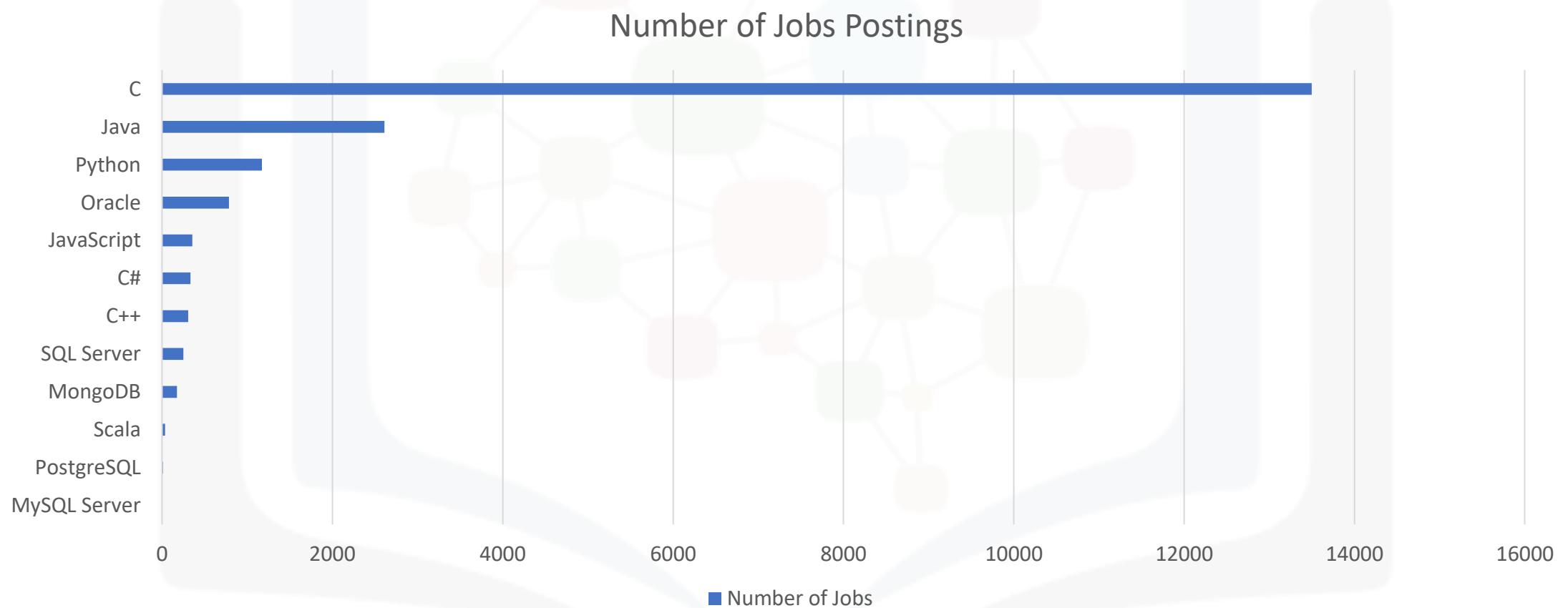


- Developers exhibit distinct and notable characteristics.
- A clear understanding of the popularity trends for various tools, platforms, and languages can be acquired.
- Efforts are needed to enhance accessibility to this job market in developing countries.

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

