



IT Skills of Tomorrow

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OUTLINE



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- Methodology
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 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- Objective: Contextualize and analyse data to identify emerging skills.
- Methodology: Overview of the approach and techniques used.
 - Data Collection: Sources and process for gathering data.
 - Data Analysis: Methods applied to analyse the collected data.
 - Visualizations: Graphs and charts illustrating key trends.
- Results: Presentation of findings with visual support.
- Discussion: Interpretation and implications of the results.
- Conclusion: Summary of research outcomes.

INTRODUCTION



- Objective: Analyze future skill requirements in IT.
- Data Sources: Job postings, training portals, surveys.
- Data Collection: Scraping websites, accessing APIs, using .csv, Excel, databases.
- Focus: Top programming languages, database skills, popular IDEs.
- Preparation: Data wrangling for analysis.
- Analysis: Apply statistical techniques to uncover trends.
- Significance: Predict emerging IT skills and global trends.

METHODOLOGY



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

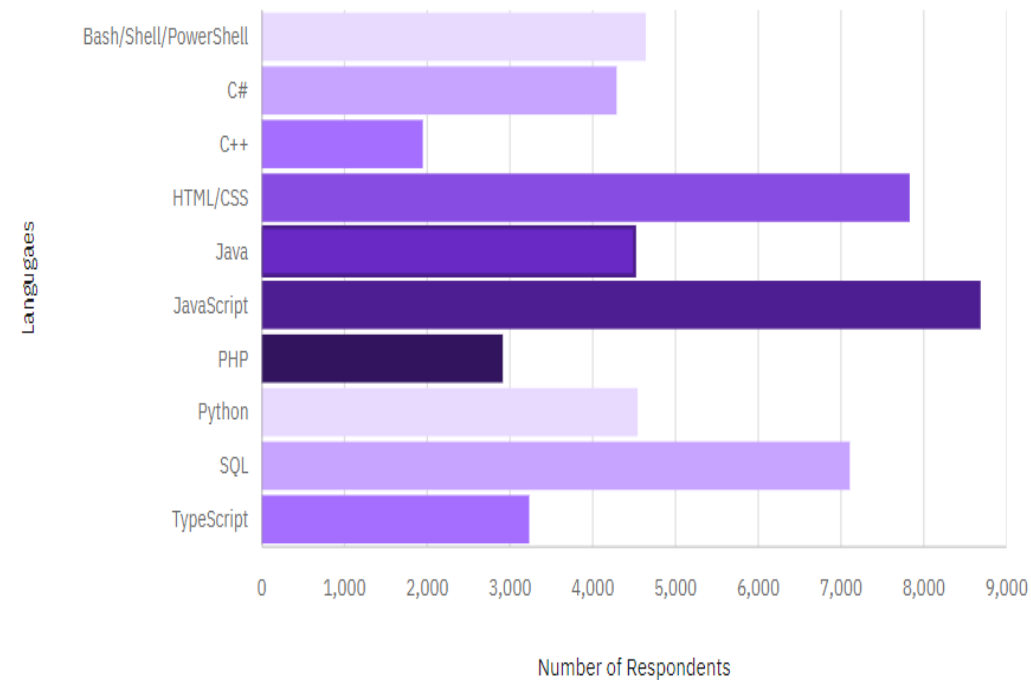
RESULTS



PROGRAMMING LANGUAGE TRENDS

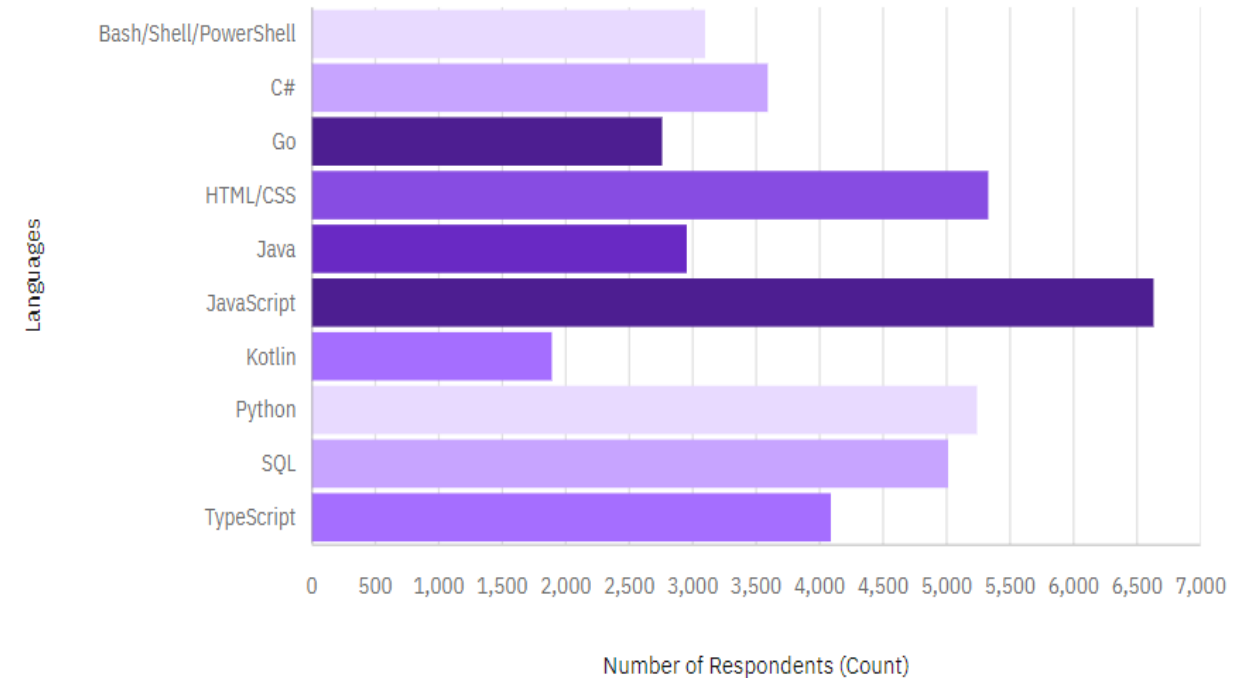
Current Year

Top 10 Program Language Experiences



Next Year

Top 10 Desired Languages to Learn



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript seems to keep as leading language.
- Python fastest-growing.
- Great interest in TypeScript

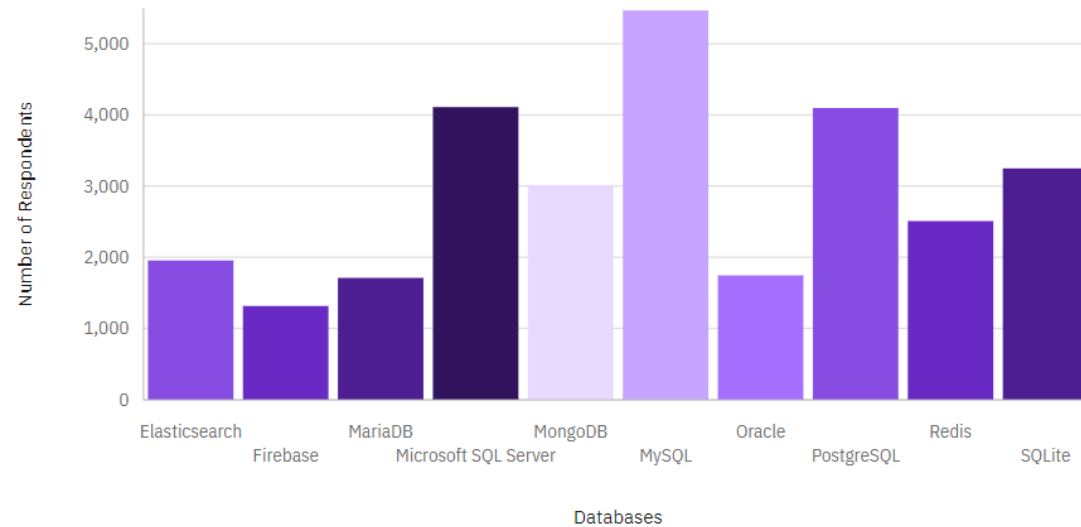
Implications

- Possible developers migration from C++ to C#
- Kotlin will be one of the emerging language

DATABASE TRENDS

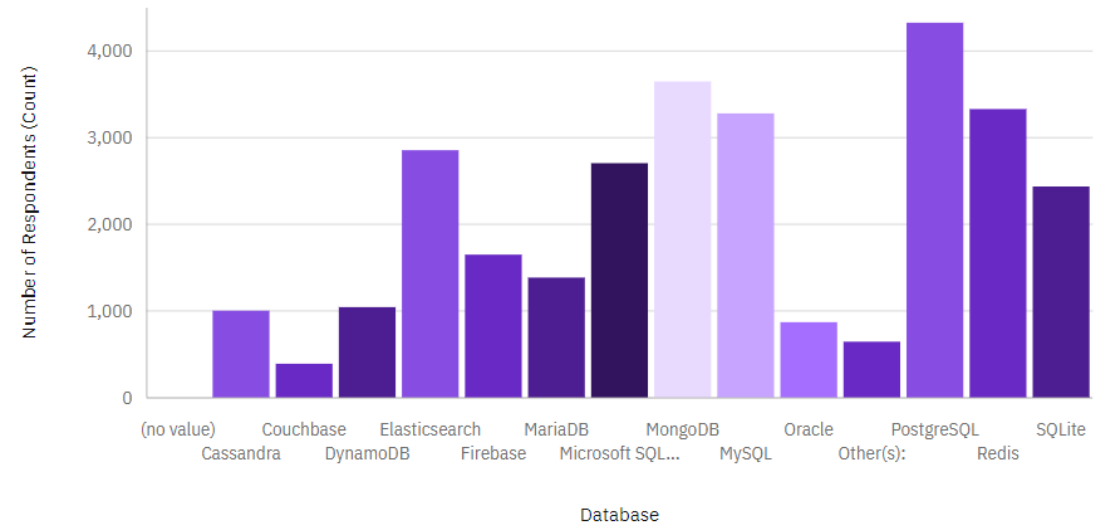
Current Year

Top 10 Databases Worked With



Next Year

Top 10 Desired Database to Learn



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL as most used database.
- Increasing interest in PostgreSQL and MongoDB.
- Lack of interest in Microsoft SQL Server and SQLite.

Implications

- Growth: PostgreSQL and MongoDB are gaining market presence.
- Decline: Microsoft SQL Server and SQLite are losing market share.

DASHBOARD

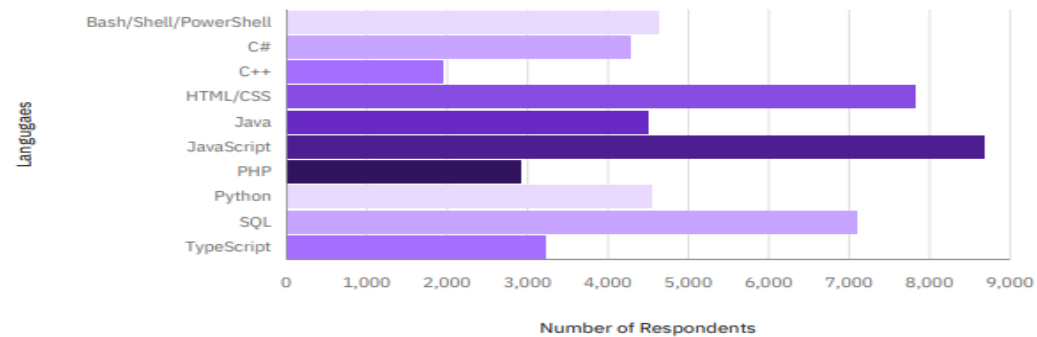


[The GitHub link of the Cognos dashboard](#)

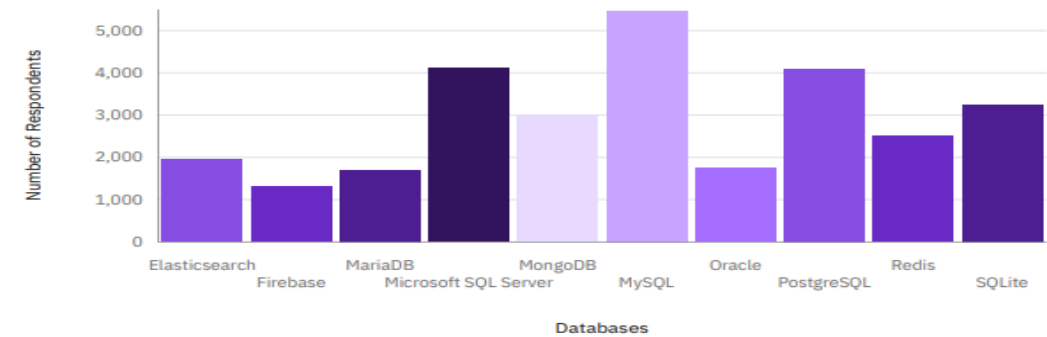
DASHBOARD TAB 1

Current Technology Usage

Top 10 Program Language Experiences



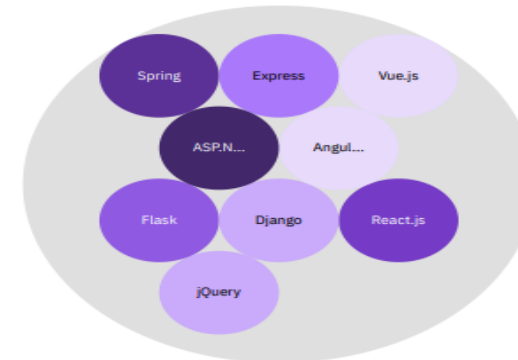
Top 10 Databases Worked With



Platforms Interacted



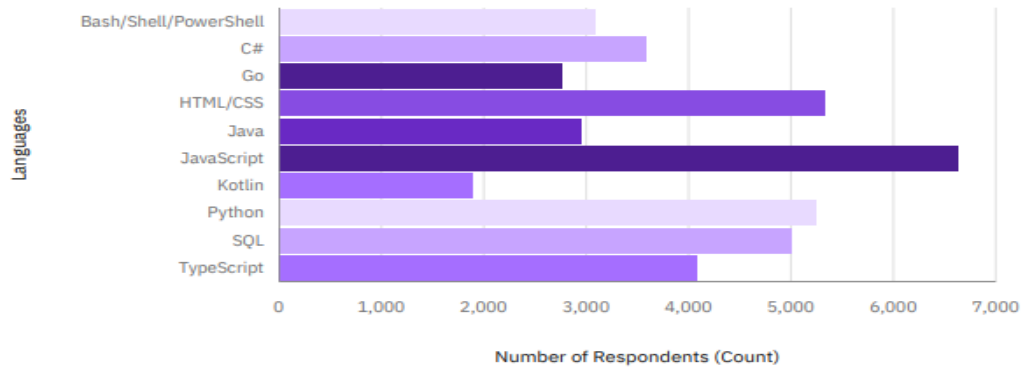
Top 10 WebFrames Used



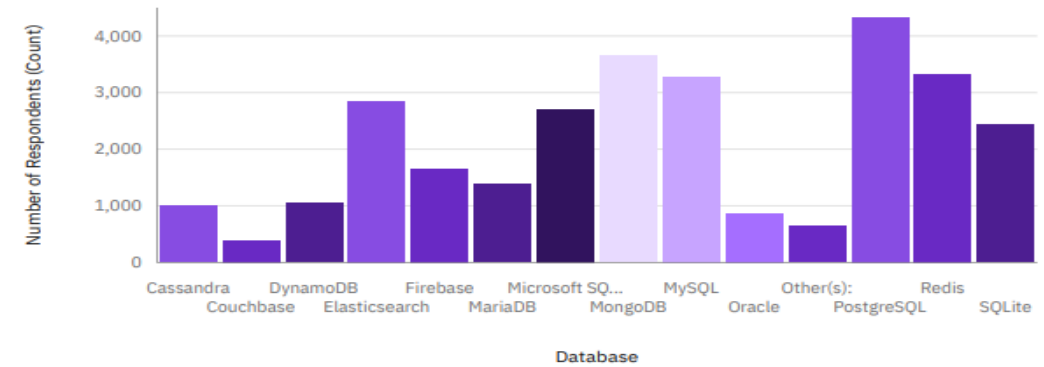
DASHBOARD TAB 2

Future Technology Trend

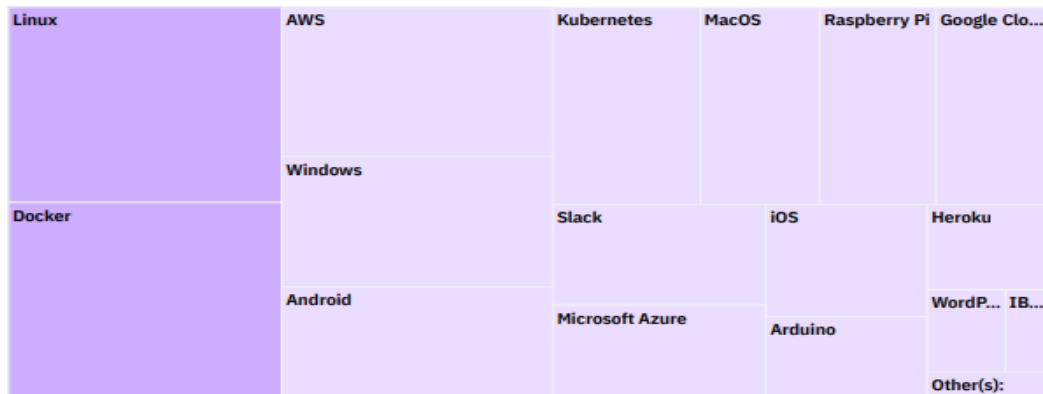
Top 10 Desired Languages to Learn



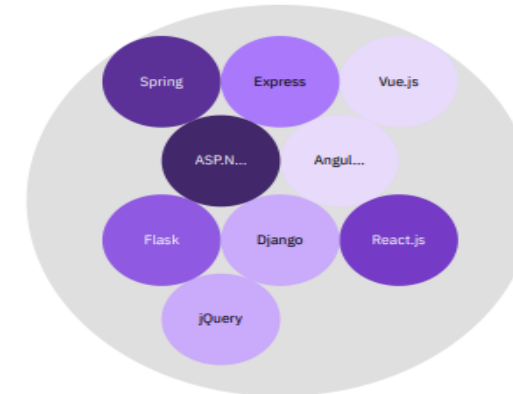
Top 10 Desired Database to Learn



Platform Desired Next Year



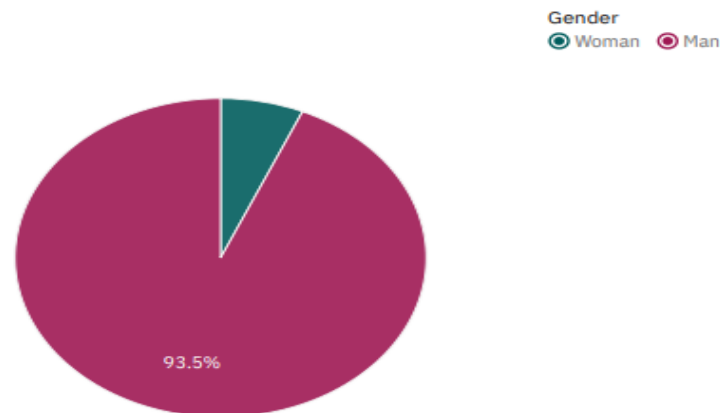
Top 10 Desired WebFrames Next Year



DASHBOARD TAB 3

Demographics

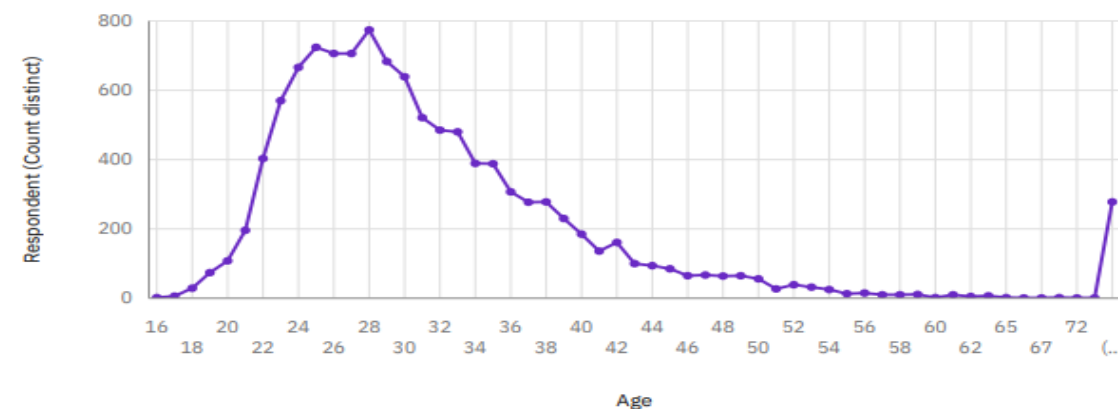
Respondent by Gender



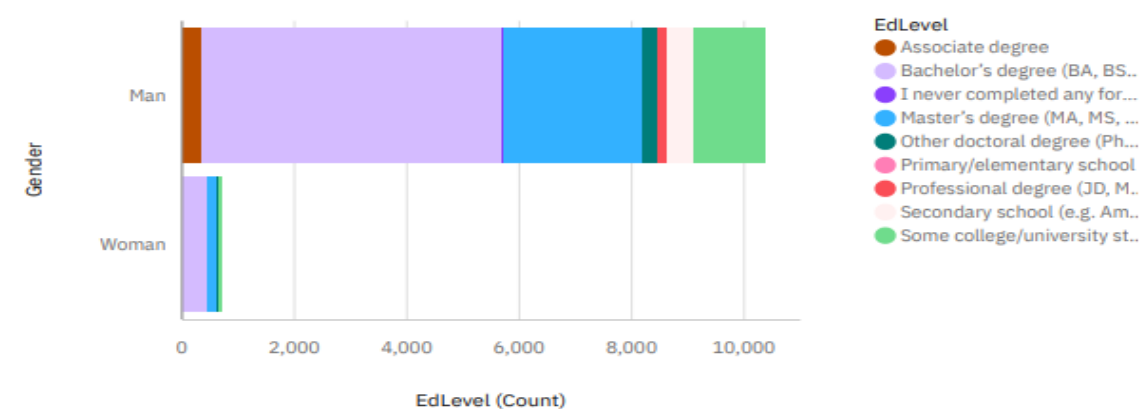
Respondent for Country regions



Respondent by Age



EdLevel by Gender



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- **Popularity:** JavaScript remains widely used, with TypeScript rapidly gaining traction.
- **Demographics:** Over 90% of developers are young males.
- **Geography:** Most developers are based in developed nations.

Implications

- **Rising Popularity:** JavaScript and TypeScript frameworks are attracting more users.
- **Demographic Shifts:** Significant differences in developers' locations and gender.
- **Education Trends:** Majority of young developers lack postgraduate degrees.

CONCLUSION

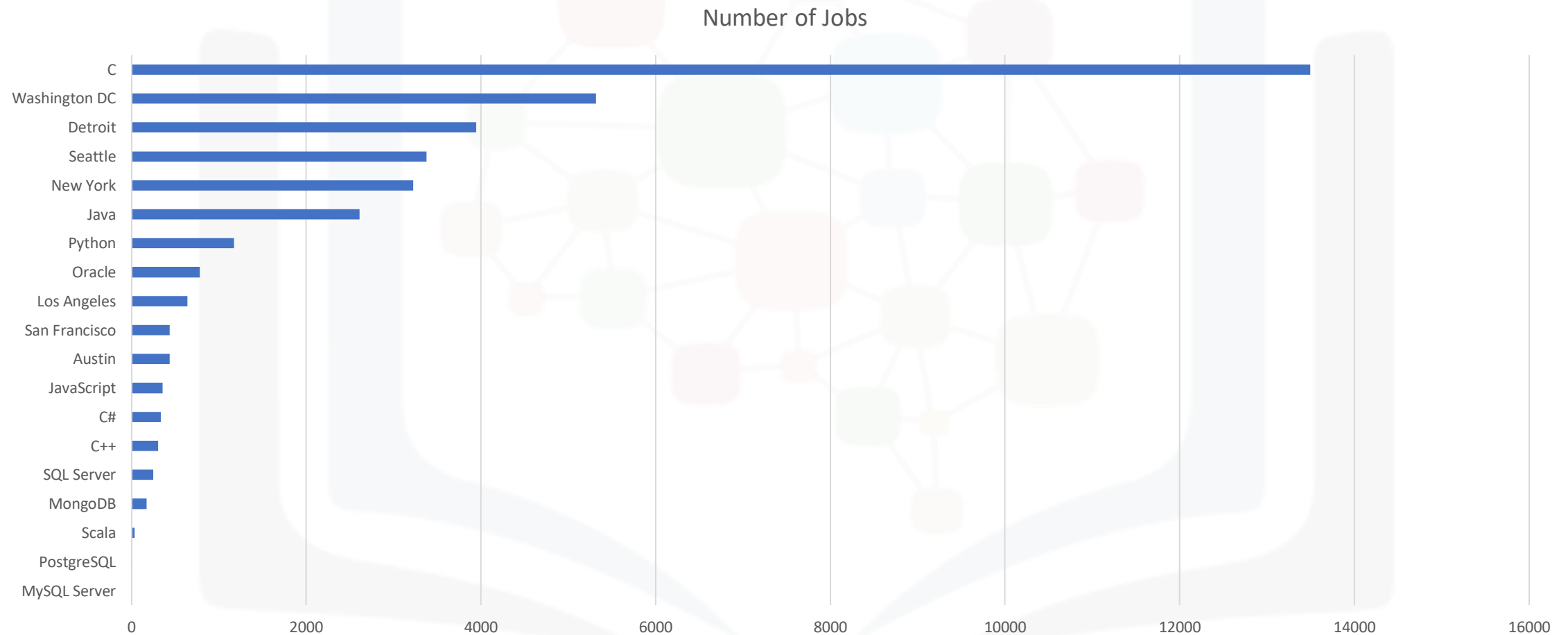


- Distinct Profiles: Developers have well-defined characteristics.
- Trend Analysis: Clear insights into the popularity of various tools, platforms, and languages can be gathered.
- Accessibility Challenge: Efforts are needed to enhance access to this job market in developing countries.

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

