

Programming languages, platforms and databases: usage and trend report

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OUTLINE



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- Methodology
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- Discussion
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EXECUTIVE SUMMARY



- Domination of working-age (35-44 years) developers with higher education, mostly from US, India, Germany
- Current technology stack is heavily web- and data-centric
- JS, SQL, HTML/CSS as mostly used languages
- PostgreSQL, MySQL, SQLite as mostly used DB's
- The future switch trend is towards new technologies with strong presence of today's stack


INTRODUCTION



- The analysis focuses on the usage and demand for programming languages, platforms, DBMS, and web frameworks
- Problem: large variety of modern technologies
- Questions:
 - how can we predict the future demand on technologies?
 - which technologies are currently most used?
- Value: Report can be used for decision-making
- Audience: HR, Management

METHODOLOGY



- SOURCE: 
- Data wrangling:
 1. Convert .csv to .xlsx
 2. Extract data columns into separate Excel-files
 3. Remove duplicates and empty rows, check data types
 4. Divide technologies by delimiter into rows
- Visualization of clear data via Congos Analytics

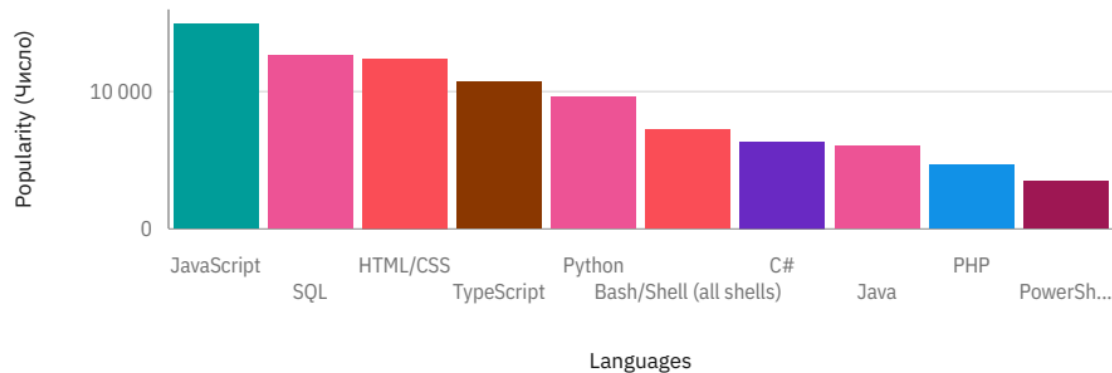
PROGRAMMING LANGUAGE TRENDS

Current Year

Current Technology Usage

Mostly used languages (TOP 10)

LanguageHaveWorkedWith

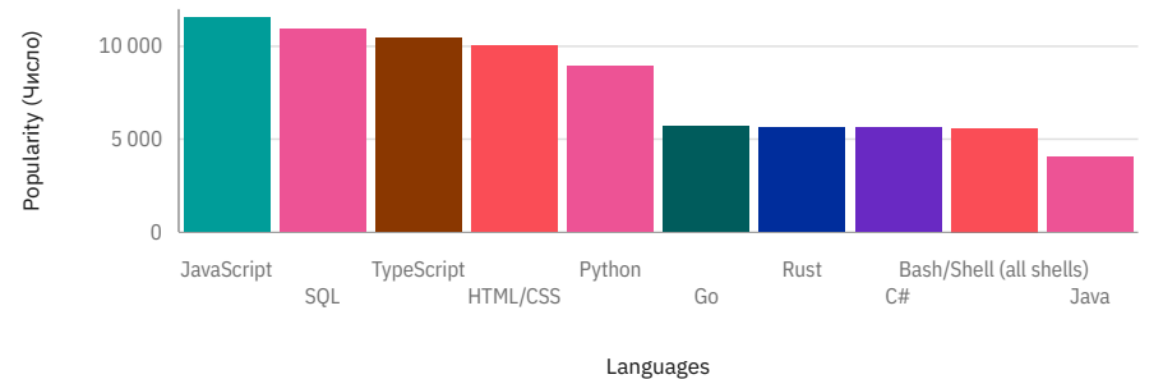


Next Year

Future Technology Trend

Mostly wanted languages (TOP 10)

LanguageWantToWorkWith



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most widely used language in the sample.
- SQL and HTML/CSS are used almost as frequently.
- In future, TypeScript rises very high and visually is almost on the same level as JavaScript and SQL.
- Go and Rust appear in the top 10 of wanted languages. They are not in the top 10 by actual usage.

Implications

- Strong focus on web and basic data-related tasks.
- The current technology landscape is dominated by the web stack (JS + HTML/CSS) and general purpose tools for working with data (SQL, Python).
- Interest in Go and Rust as promising languages is higher than their current adoption, indicating potential future growth.

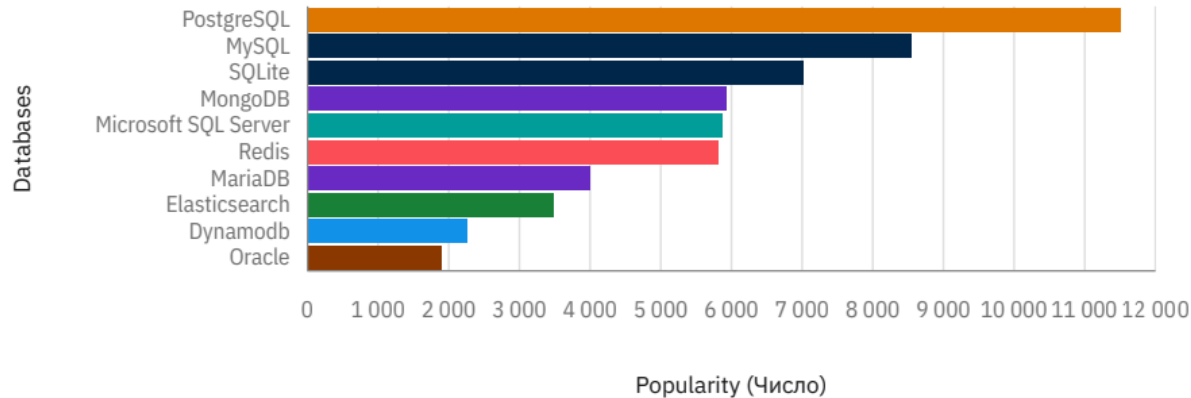


DATABASE TRENDS

Current Year

Mostly used databases (TOP 10)

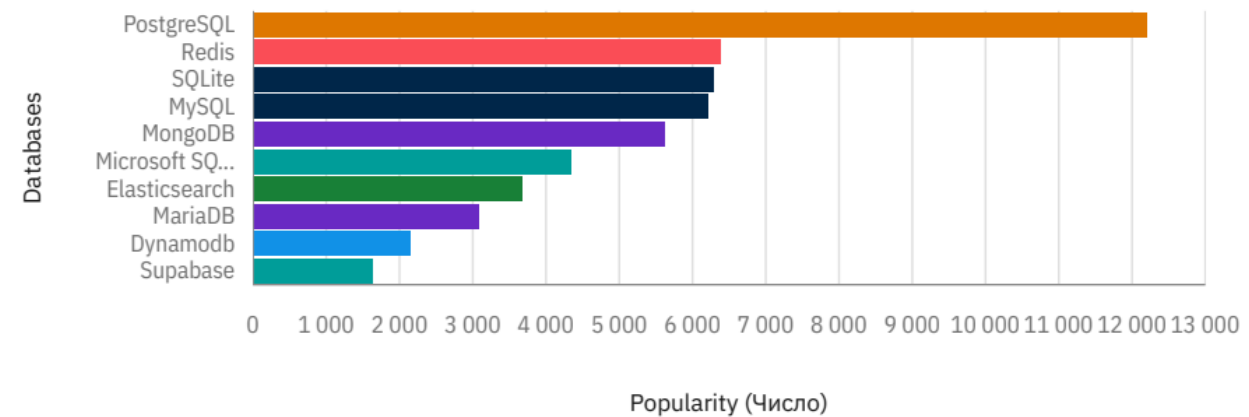
DatabaseHaveWorkedWith



Next Year

Mostly wanted databases (TOP 10)

DatabaseWantToWorkWith



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL is the most commonly used database.
- Next come MySQL and SQLite, which are also widely used but clearly behind PostgreSQL
- A new player appears in future, Supabase, which was not present in the current usage top 10.

Implications

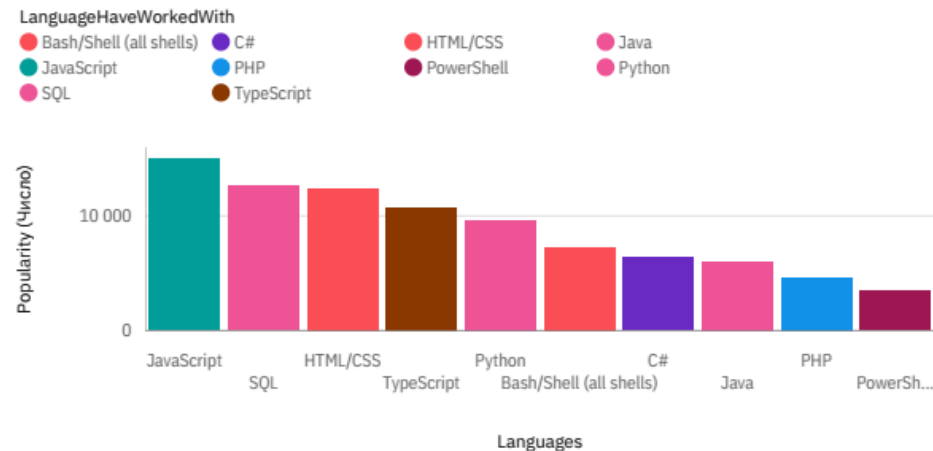
- PostgreSQL not only has the largest share among current databases, but also the highest “future demand”. Redis and Supabase look like technologies that are gaining popularity.



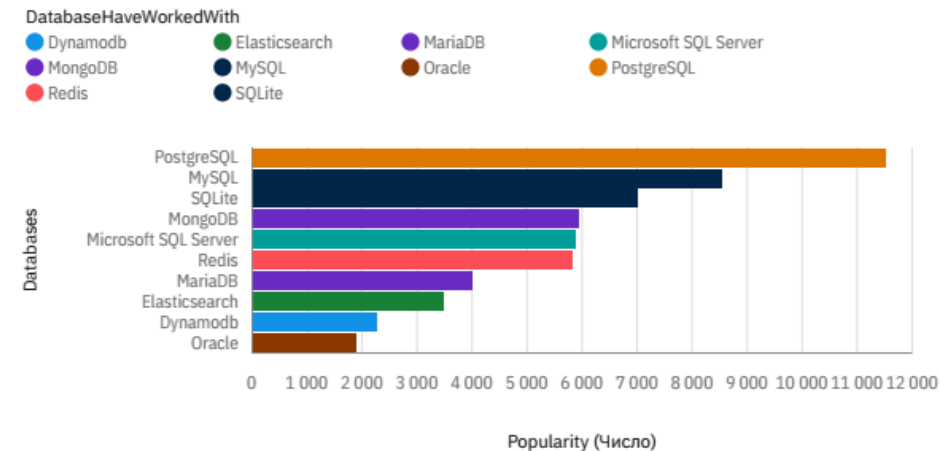
DASHBOARD TAB 1

Current Technology Usage

Mostly used languages (TOP 10)



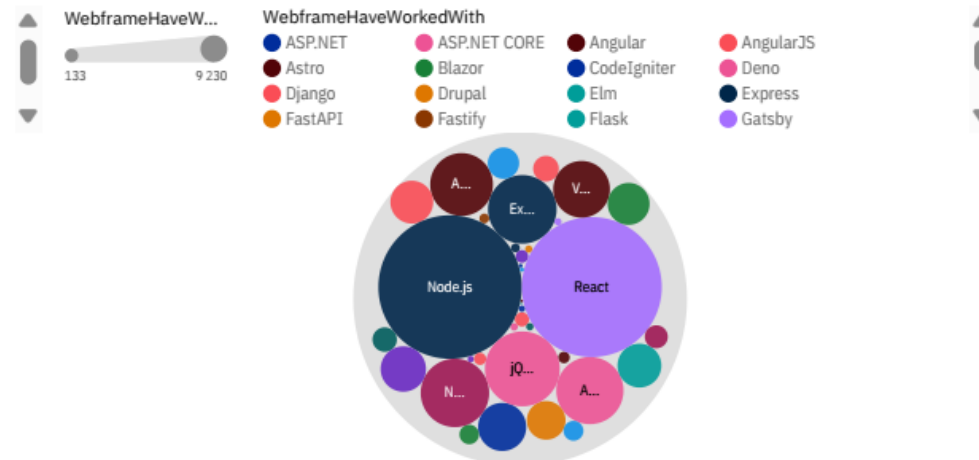
Mostly used databases (TOP 10)



Mostly used platforms (TOP 10)



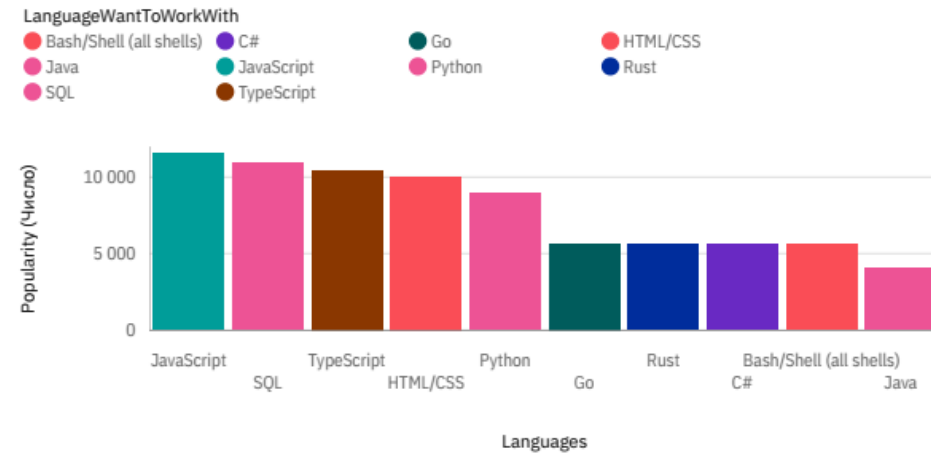
Mostly used web frames (TOP 10)



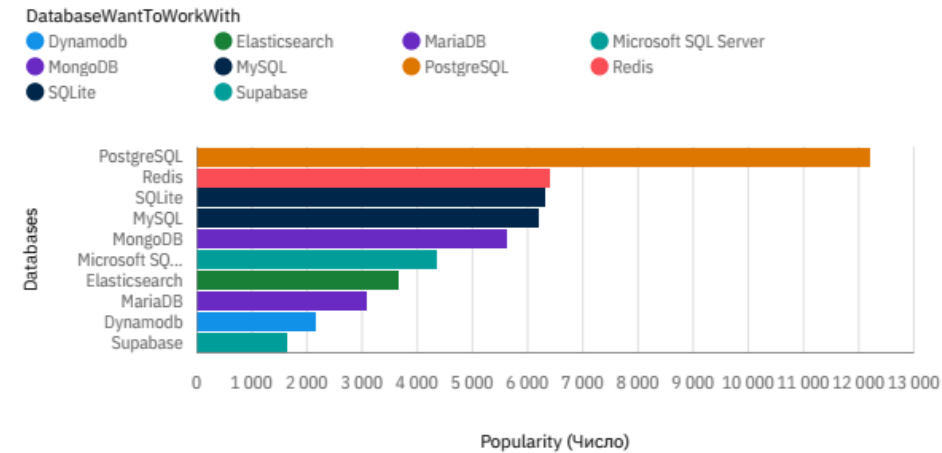
DASHBOARD TAB 2

Future Technology Trend

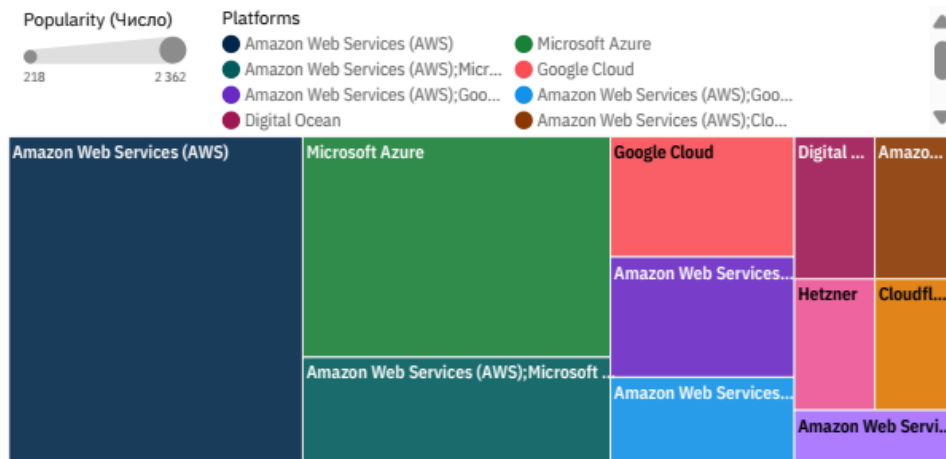
Mostly wanted languages (TOP 10)



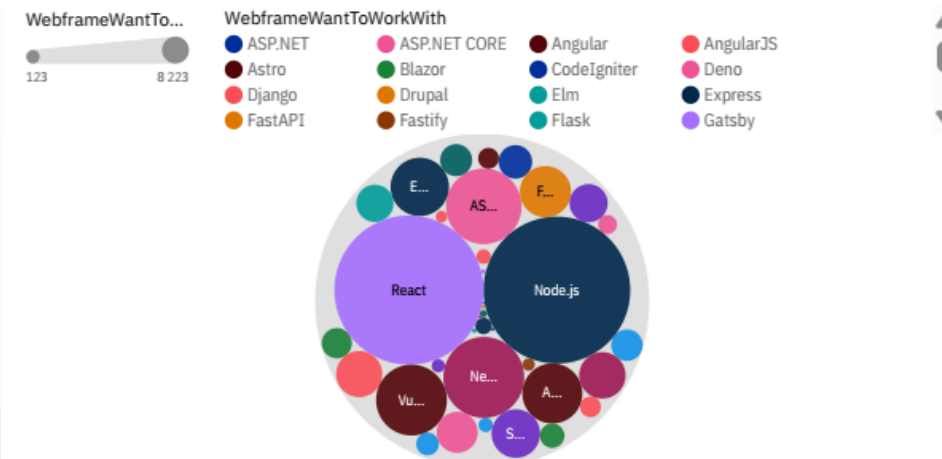
Mostly wanted databases (TOP 10)



Most wanted platforms (TOP10)



Most wanted web frames (TOP 10)



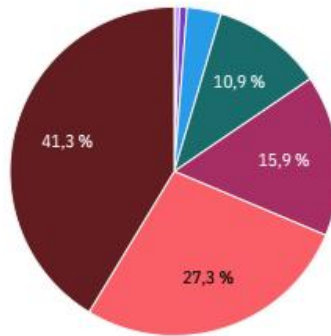
DASHBOARD TAB 3

Demographics

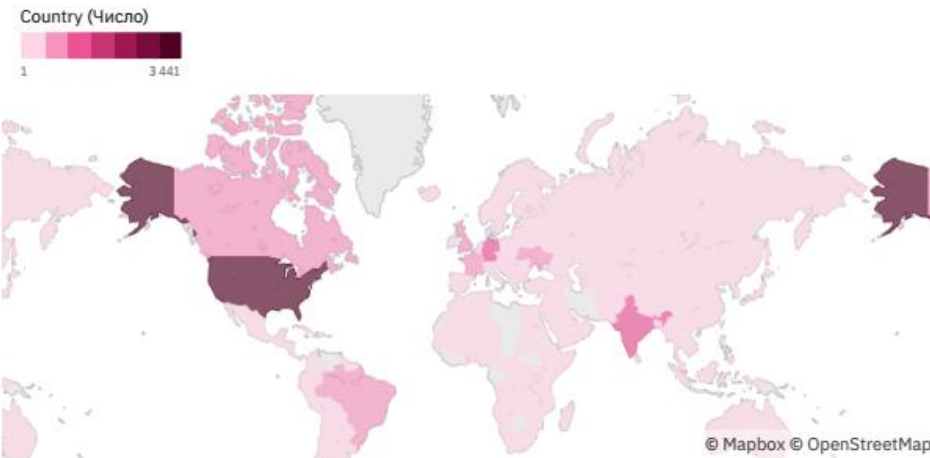
Respondent distribution by age

Age

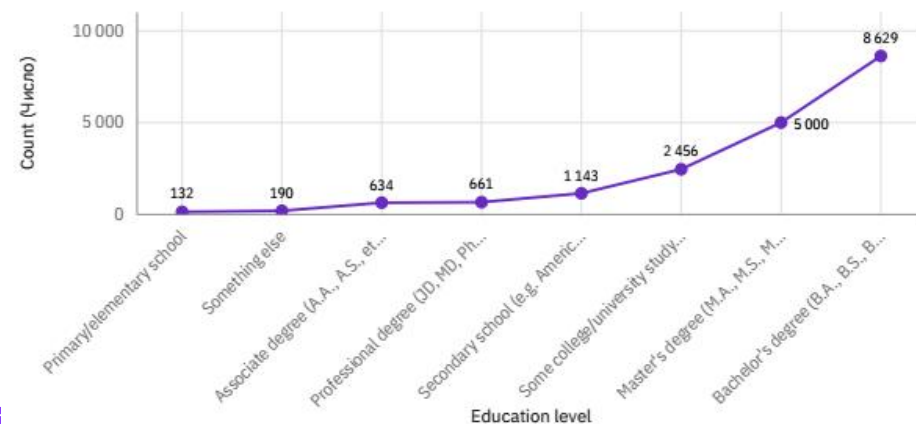
- Prefer not to say
- 65 years or older
- Under 18 years old
- 55-64 years old
- 45-54 years old
- 18-24 years old
- 35-44 years old
- 25-34 years old



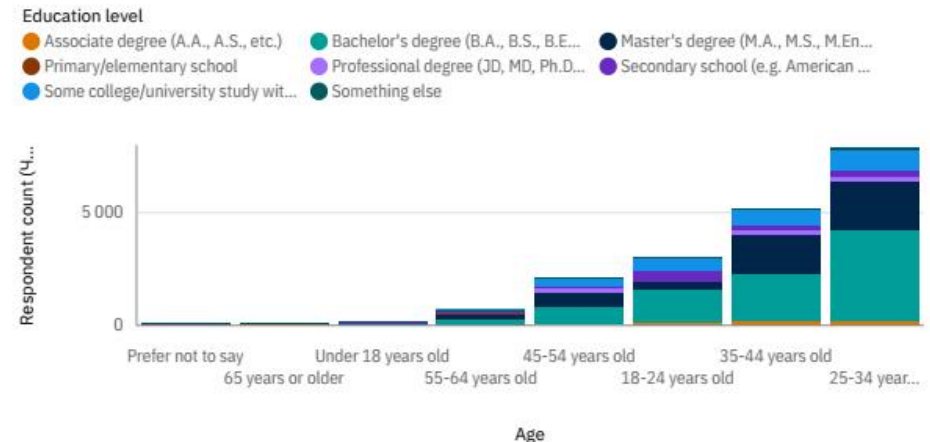
Respondent count by country



Respondent distribution by formal education level



Respondent count by age and education level



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- JS, SQL, HTML/CSS are most popular languages
- PostgreSQL is most popular DB
- Node.js and React are most used web frames

Implications

- Future trend remains the same based on current preference of developers
- Developers, who working with less popular languages and technologies, should pay attention to most popular one from this report

CONCLUSION



- Technology profile: The current stack is dominated by web and data technologies (JavaScript, SQL, HTML/CSS, Python, TypeScript) with a strong focus on PostgreSQL and major clouds (AWS, Azure, GCP).
- Trends: Respondents want to continue working with the same core technologies but show increased interest in modern tools: Go and Rust among languages, Redis and Supabase among databases.
- Respondent profile: The typical respondent is a working-age professional with a bachelor or master degree, working or seeking to work with a modern web/cloud stack.

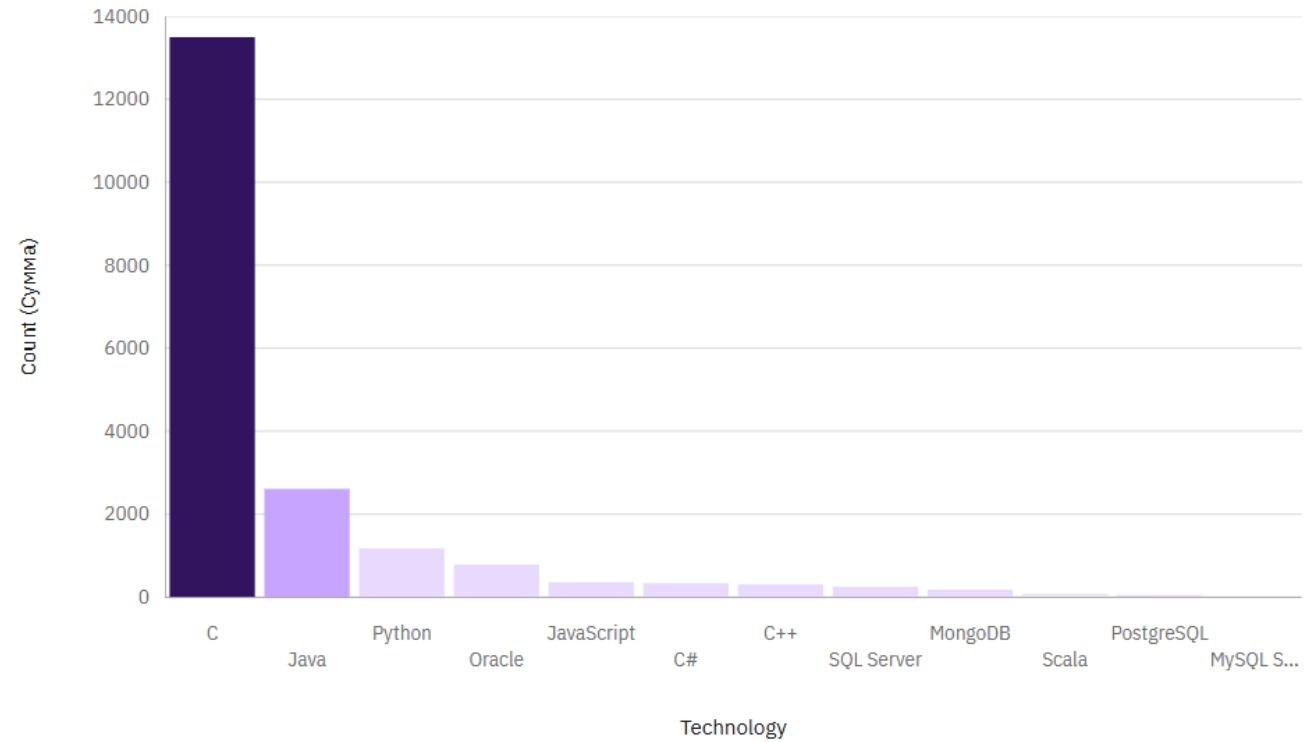
APPENDIX



JOB POSTINGS

Number of Job Postings

Number of Job Po...
0 13498



POPULAR LANGUAGES

Average Annual Salary

