

# Programming languages, platforms and databases: usage and trend report

---

Provided by Ilia Dubchuk

24.11.2025

© IBM Corporation. All rights reserved.



Skills Network



# OUTLINE

---



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



# 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

---

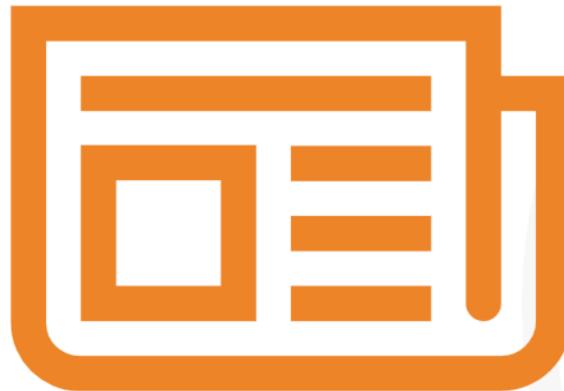


- The analysis focuses on the usage and demand for programming languages, platforms, DBMS, and web frameworks
- Problem: large variety of modern technologies
- Questions:
  - how can we predict the future demand on technologies?
  - which technologies are currently most used?
- Value: Report can be used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



# METHODOLOGY

---



- SOURCE: A blue link icon consisting of two interlocking circles.
- 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

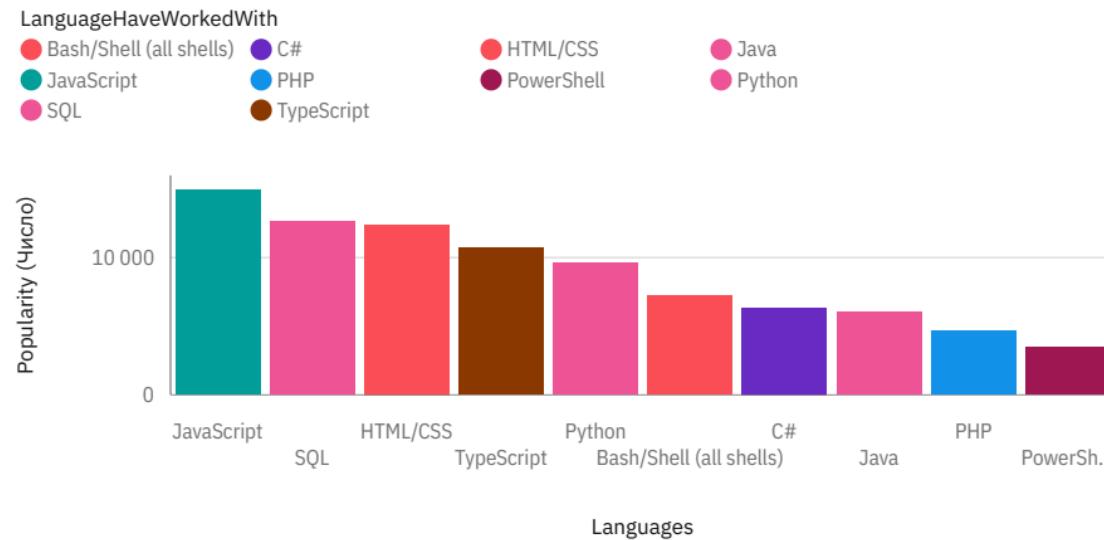


# PROGRAMMING LANGUAGE TRENDS

## Current Year

### Current Technology Usage

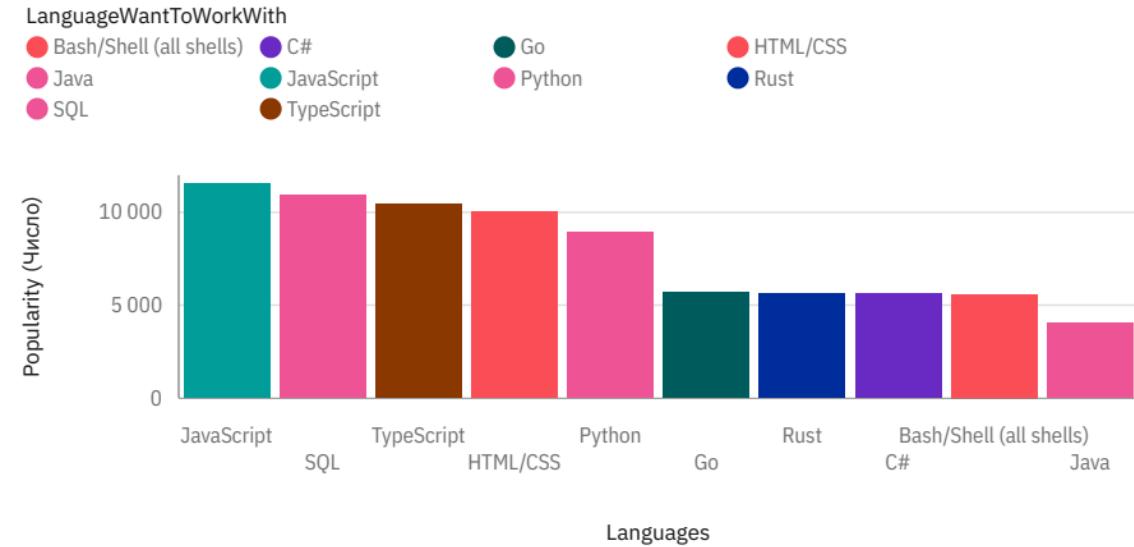
#### Mostly used languages (TOP 10)



## Next Year

### Future Technology Trend

#### Mostly wanted languages (TOP 10)



# 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

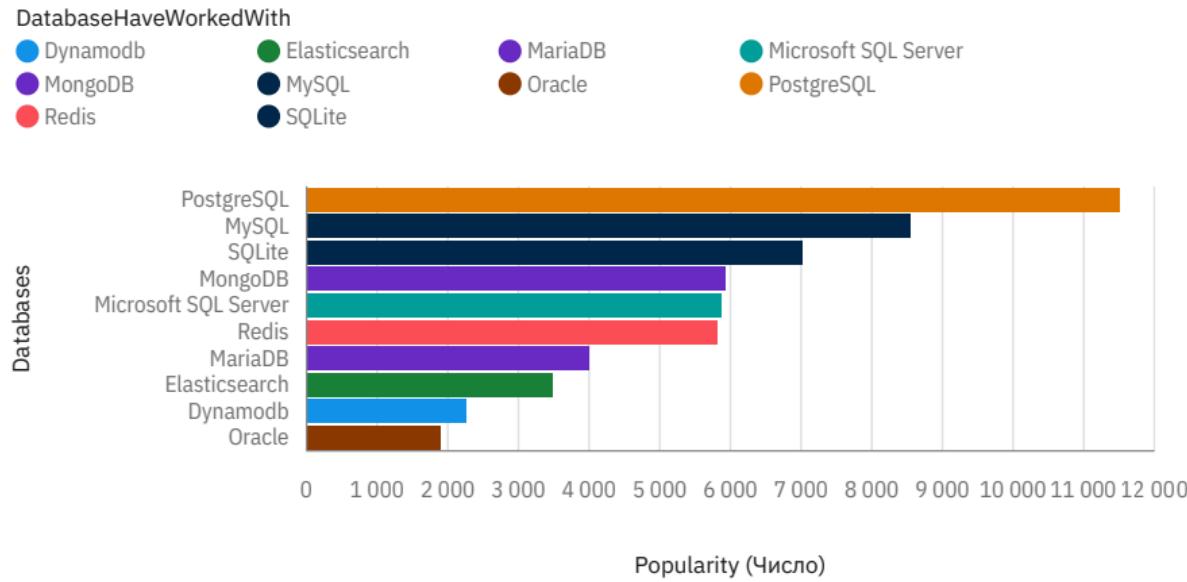
- Strong focus on web and basic data-related tasks.
- The current technology landscape is dominated by the web stack (JS + HTML/CSS) and general purpose tools for working with data (SQL, Python).
- Interest in Go and Rust as promising languages is higher than their current adoption, indicating potential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



# DATABASE TRENDS

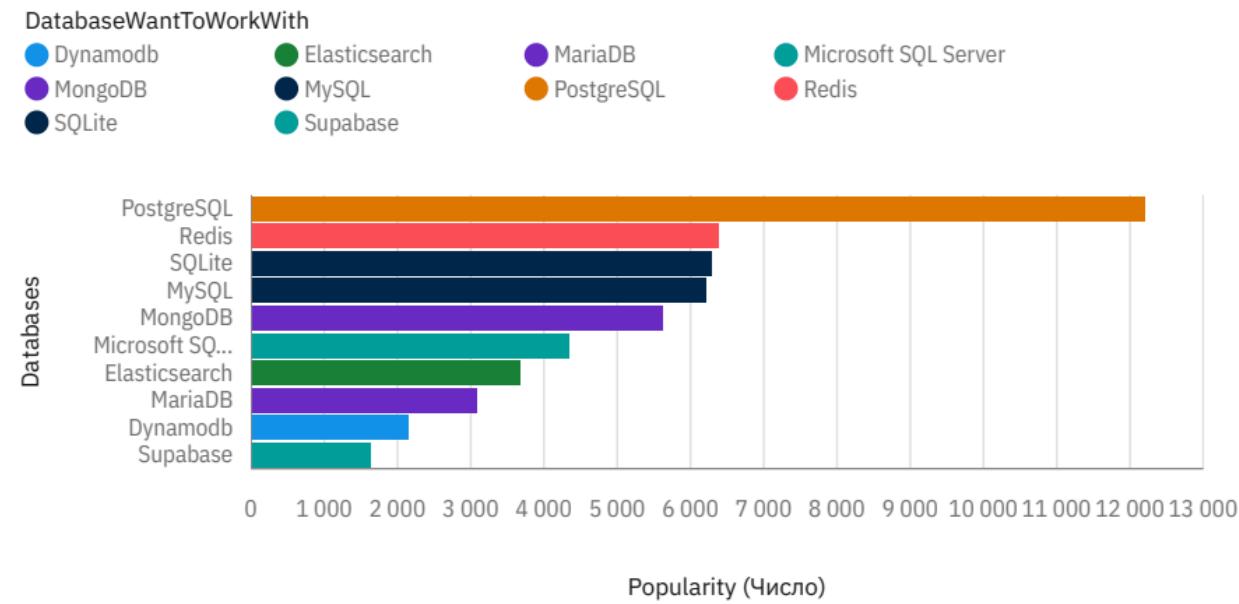
## Current Year

Mostly used databases (TOP 10)



## Next Year

Mostly wanted databases (TOP 10)



# 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.

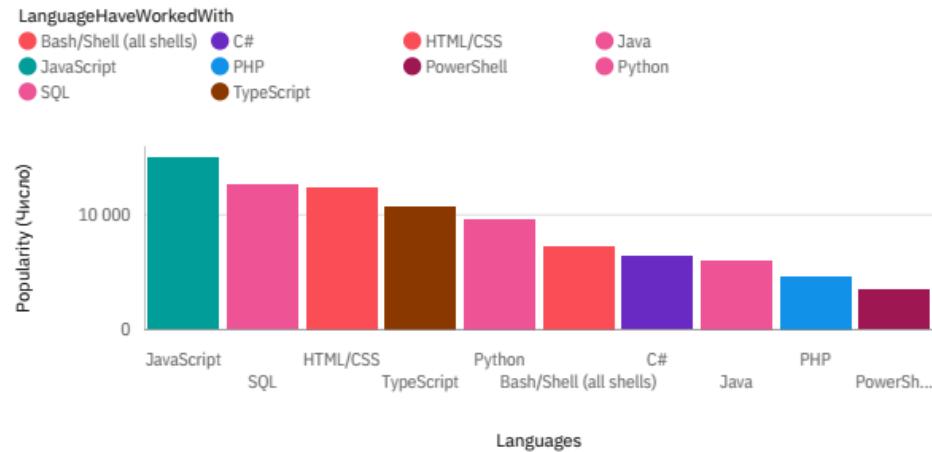
## Implications

- 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.

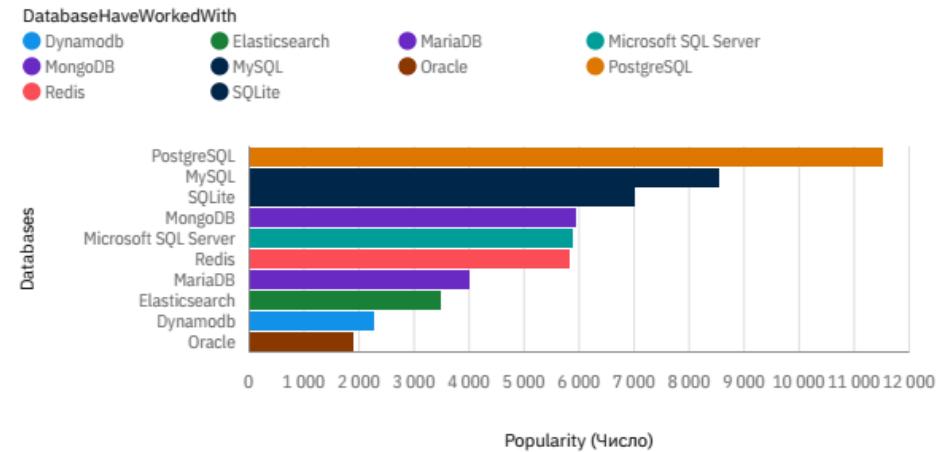
# DASHBOARD TAB 1

## Current Technology Usage

### Mostly used languages (TOP 10)



### Mostly used databases (TOP 10)



### Mostly used platforms (TOP 10)



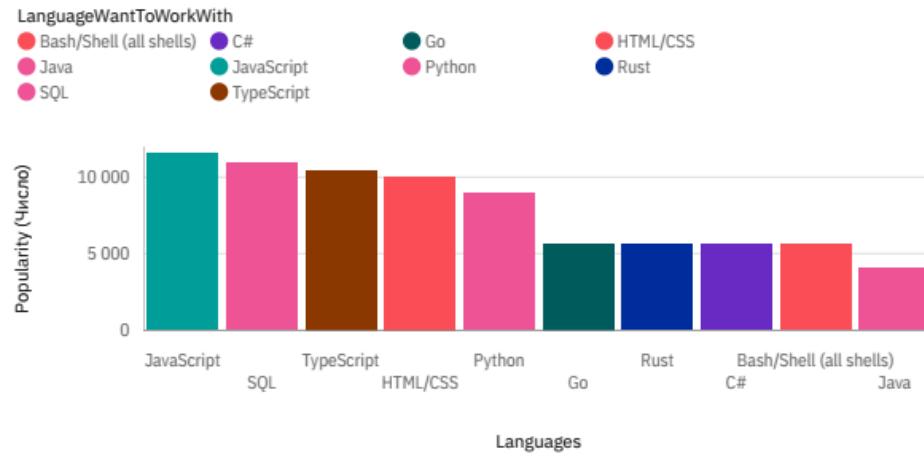
### Mostly used web frames (TOP 10)



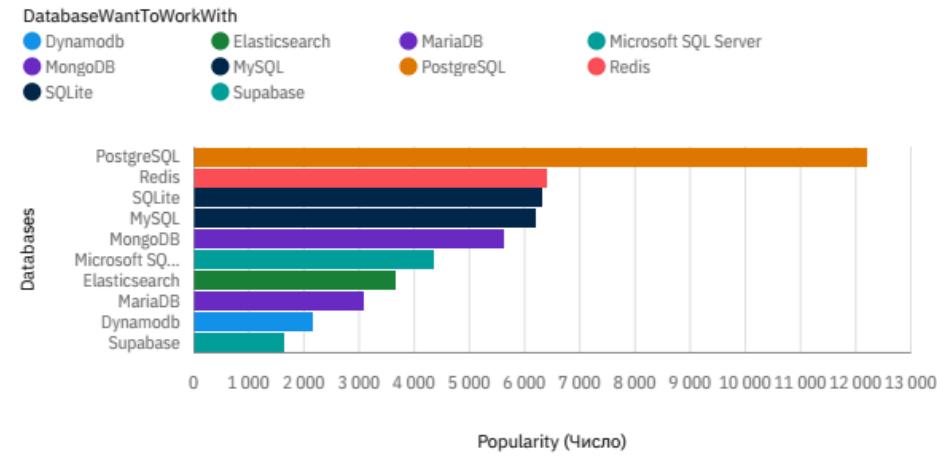
# DASHBOARD TAB 2

Future Technology Trend

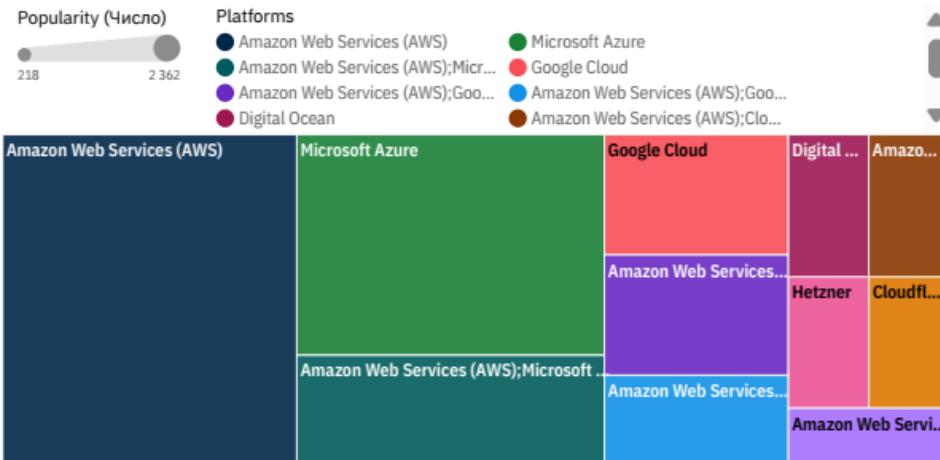
## Mostly wanted languages (TOP 10)



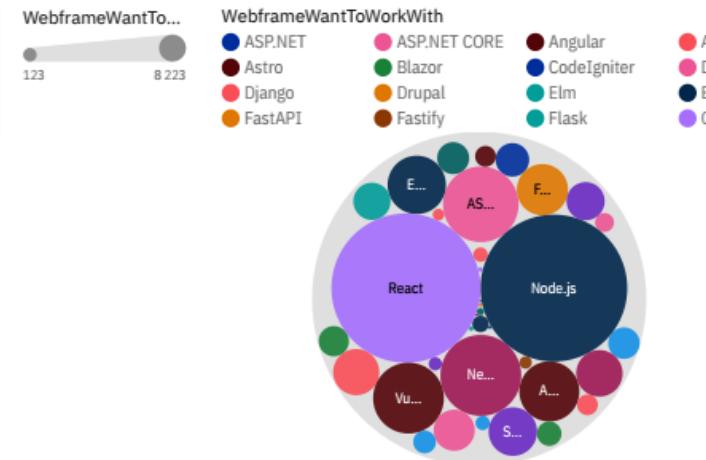
## Mostly wanted databases (TOP 10)



## Most wanted platforms (TOP10)



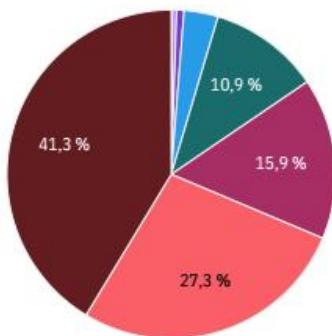
## Most wanted web frames (TOP 10)



# DASHBOARD TAB 3

## Demographics

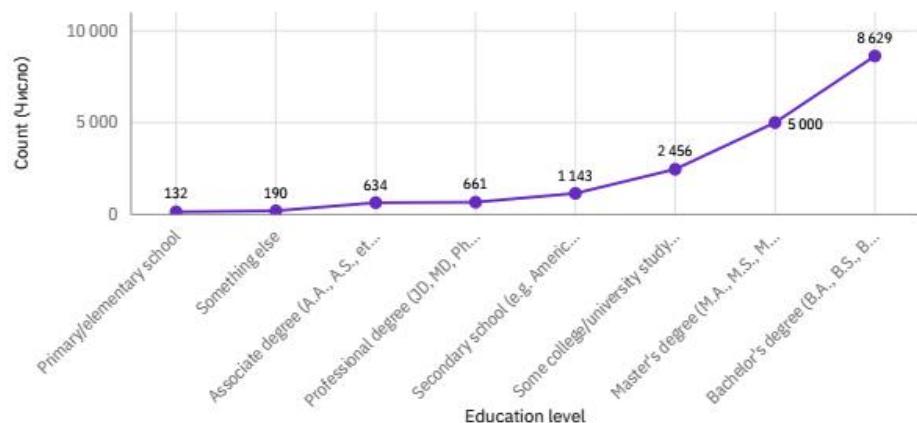
Respondent distribution by age



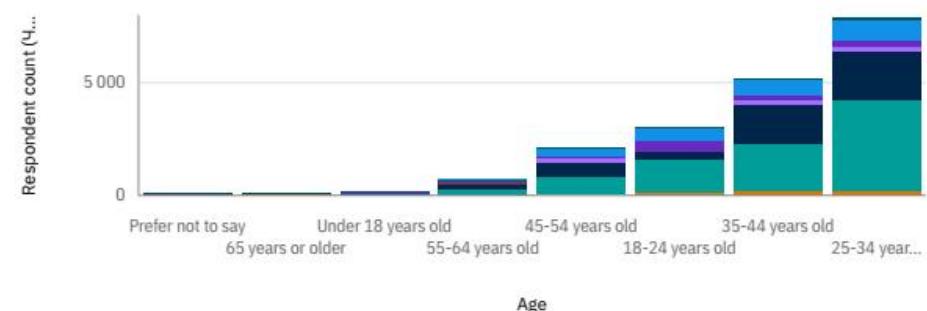
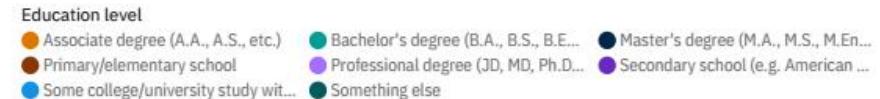
Respondent count by country



Respondent distribution by formal education level



Respondent count by age and education level



# DISCUSSION

---



Skills Network



# 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

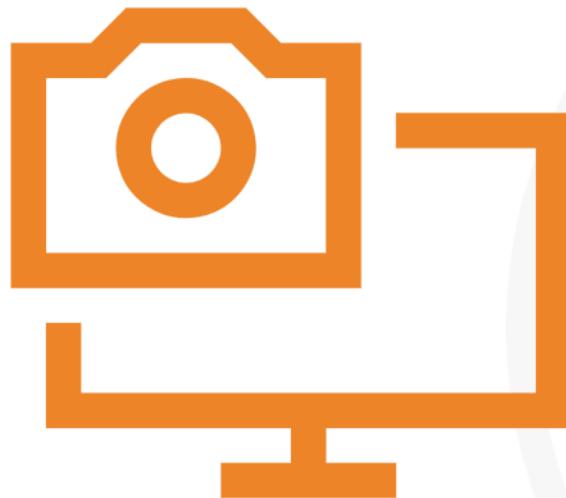
---



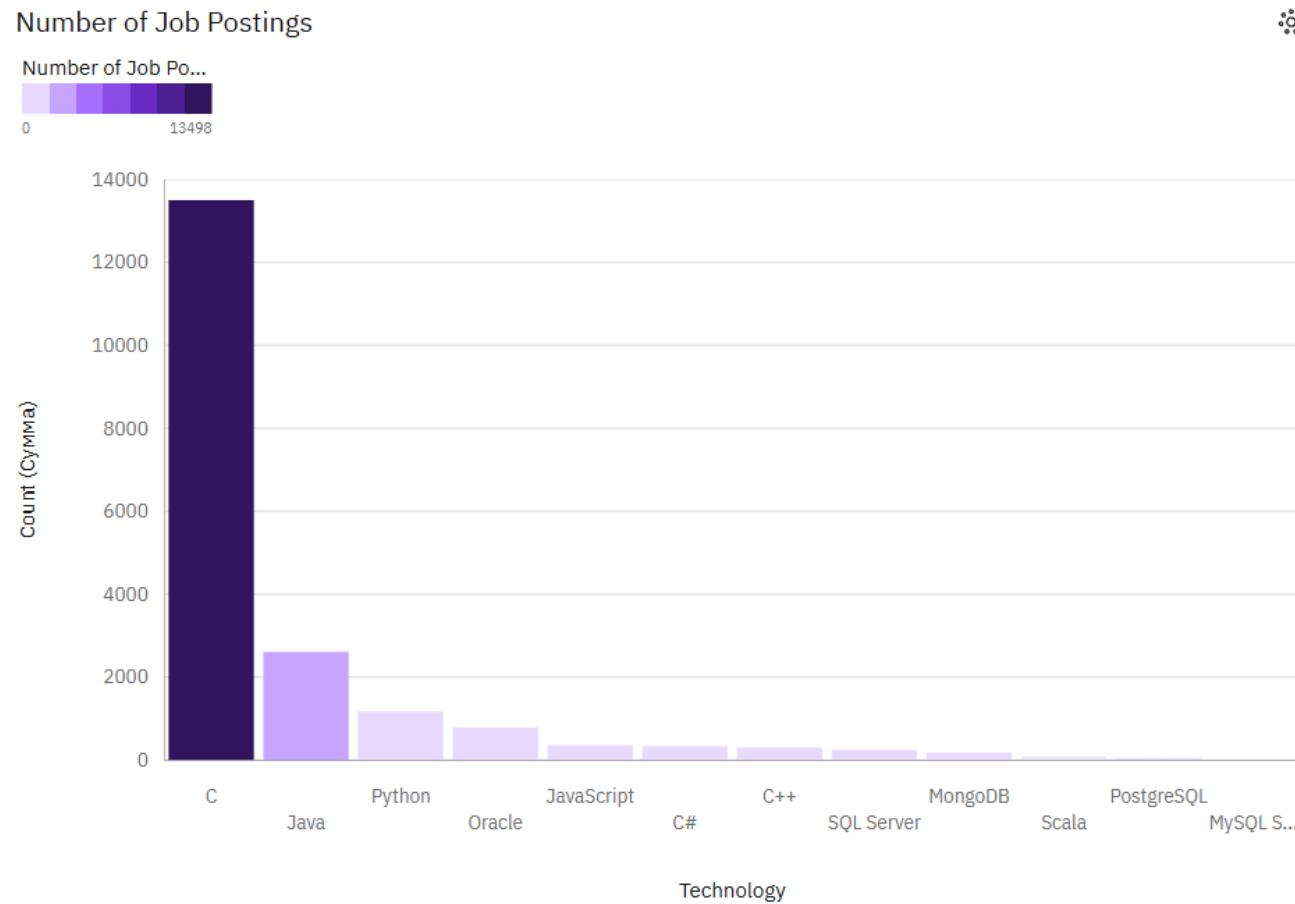
- Technology profile: The current stack is dominated by web and data technologies (JavaScript, SQL, HTML/CSS, Python, TypeScript) with a strong focus on PostgreSQL and major clouds (AWS, Azure, GCP).
- Trends: Respondents want to continue working with the same core technologies but show increased interest in modern tools: Go and Rust among languages, Redis and Superbase 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



# POPULAR LANGUAGES

Average Annual Salary

Average Annual S...

84,727 130,801

