

EMERGING TRENDS IN SOFTWARE

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OUTLINE

The presentation will contain the following segments:

Executive Summary

Introduction

Methodology

Results

- Visualizations - Charts
- Dashboard

Discussion

- Findings & Implications

Conclusion

Appendix

WEB IS KING

Web-based languages and technologies continue to be most used and most desired

SIMPLE IS SEXY

Languages and technologies that are easy to use (simple syntax and typing to avoid errors) are more desired by respondents

1

2

EXECUTIVE SUMMARY

INTRODUCTION

01.

STACK OVERFLOW

Using every developer's favourite website's survey to understand trends in technology.

02.

PROBLEM

Software development languages and technologies are changing quickly, in what direction are they trending?

03.

QUESTIONS TO ASK

What are technology demands of the world and what are the demands of the developer?

04.

WHAT TO LOOK FOR

Focus on what the developers work with now, what they want, and who they are.

METHODOLOGY

DATA COLLECTION & WRANGLING

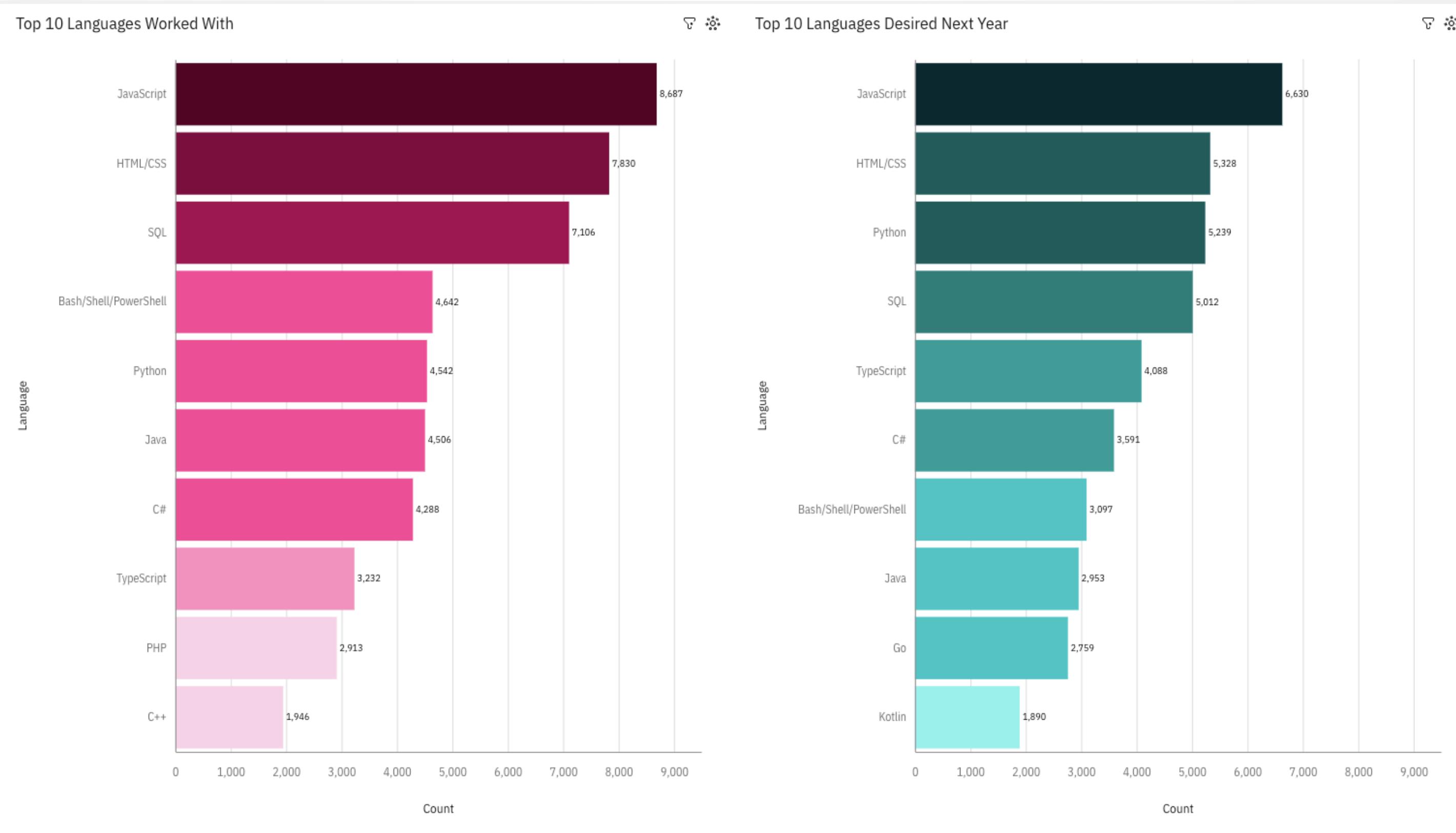
- Modified GitHub Jobs API¹
- Programming language salaries from Web Scraping²
- Modified Stack Overflow Survey Results³

DATA ANALYSIS & VISUALIZATION

- Exploring the data through visualizations
- Doing analysis of the data to create meaningful visualizations
- Creating dashboards with visualizations of relevant data

RESULTS

PROGRAMMING LANGUAGE TRENDS



FINDINGS & IMPLICATIONS

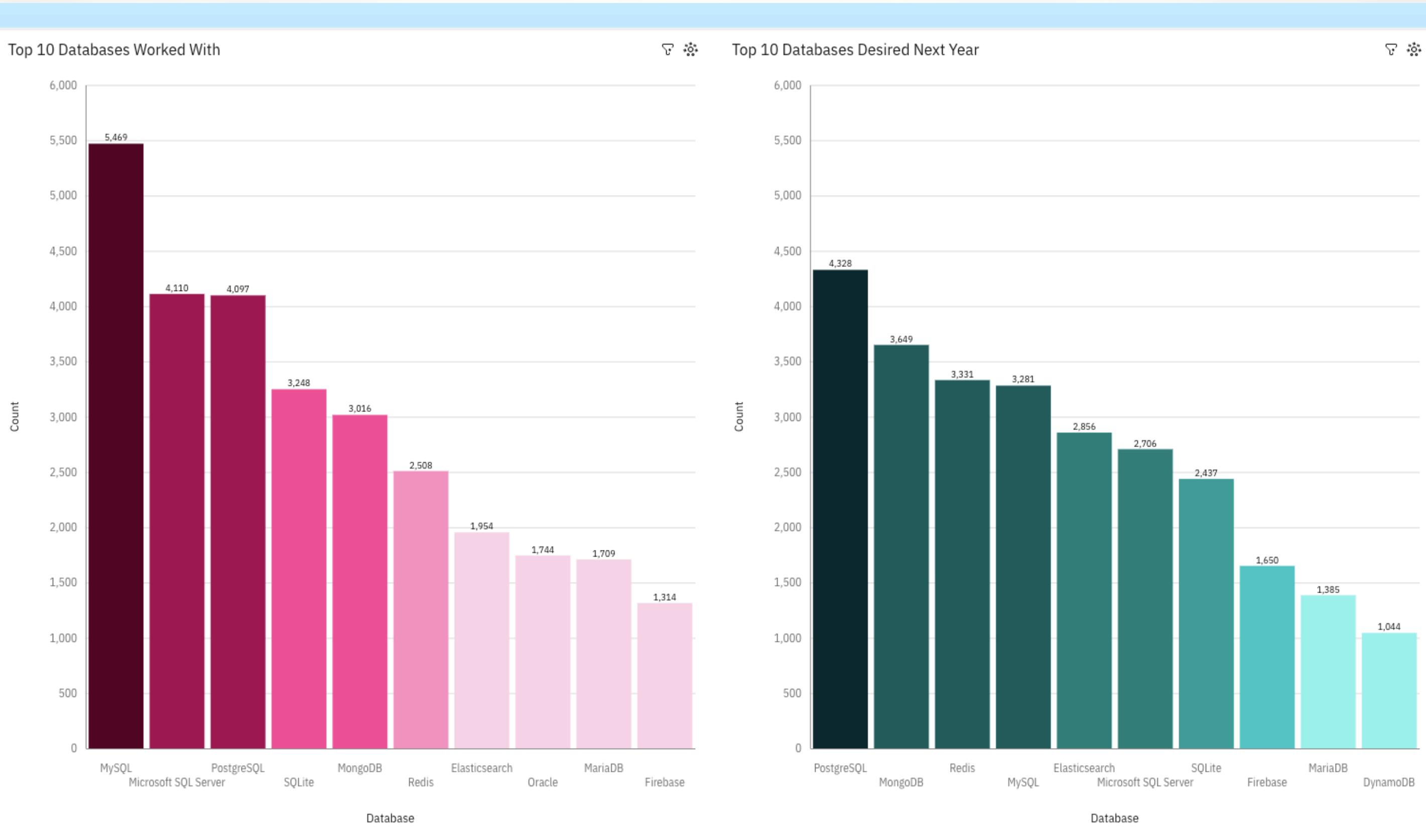
1

- JavaScript is the most used and most desired language
- Python demand is increasing fast
- Respondents are losing interest in Bash and Shell scripting

2

- Since the web is such a prominent aspect of the tech world it makes sense that web languages are at the top
- JavaScript is being continually upgraded and made more easy to use, a large complaint is the lack of Typing. This could be the reason for the surge in TypeScript
- PHP, Java, and C are seen as more archaic and take a little more effort to work with which could be why we're seeing their decrease
- Go & Kotlin are languages that are also contain Typing and have simple syntaxes along with other features that make it easier to use than languages like C

DATABASE TRENDS



FINDINGS & IMPLICATIONS

1

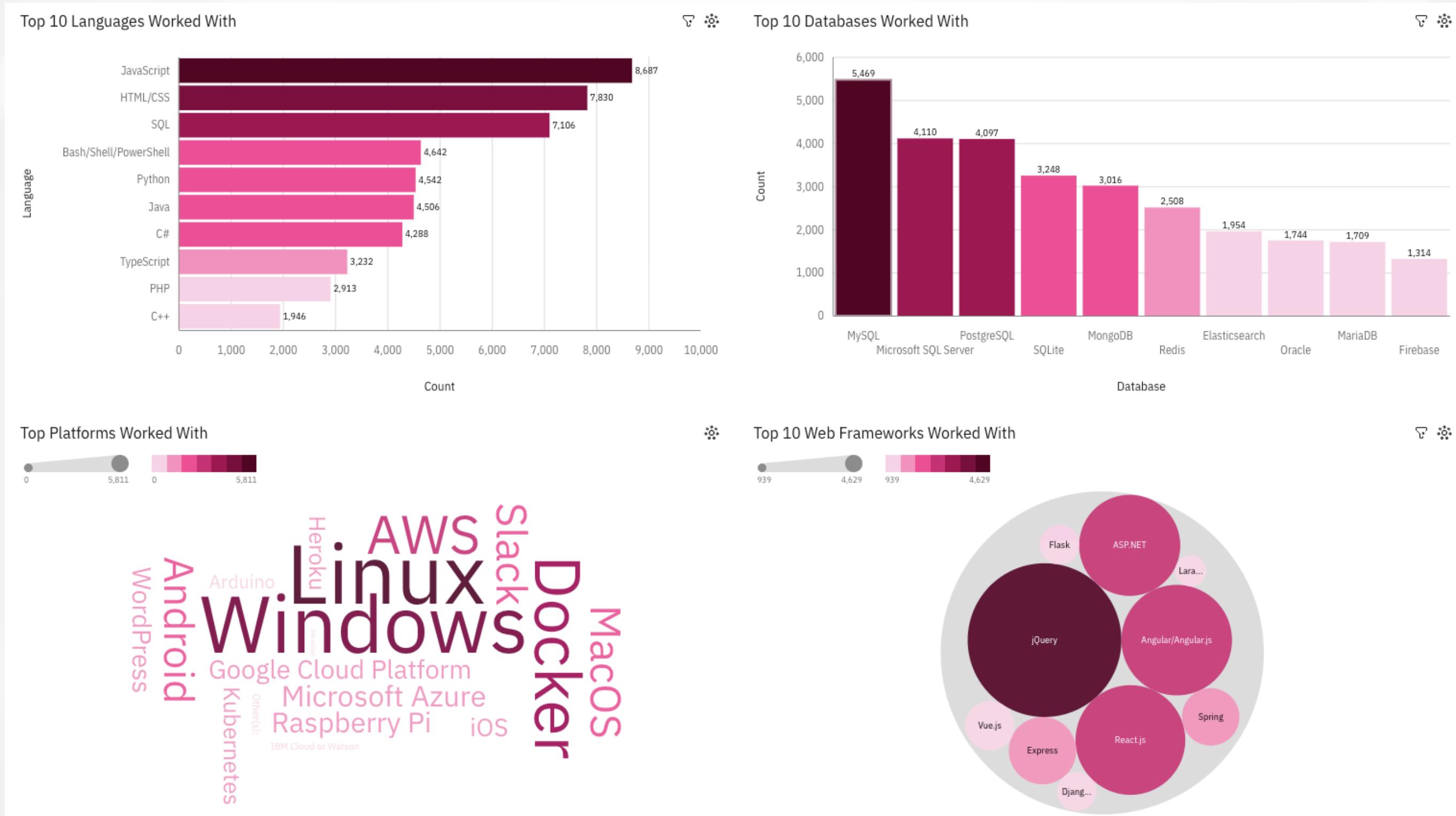
- NoSQL (Non-relational) databases are increasing in interest such as MongoDB and DynamoDB
- Relational Databases are still popular
- Services are increasing in popularity such as Elasticsearch and Firebase
- Data stores are increasing in demand such as Redis
- Oracle is not in the top 10 most desired
- Developers losing interest in Microsoft SQL Server

2

- PostgreSQL has more features and makes working with SQL easier, which shows a similar trend as with programming languages that simplicity and ease-of-use are important
- With more complex data the freedom that NoSQL provides is very alluring
- PaaS tools are gaining in popularity, again to simplify the developers life
- As data becomes more prevalent and valuable storing it becomes more important, thus explaining the increase in data stores

DASHBOARD

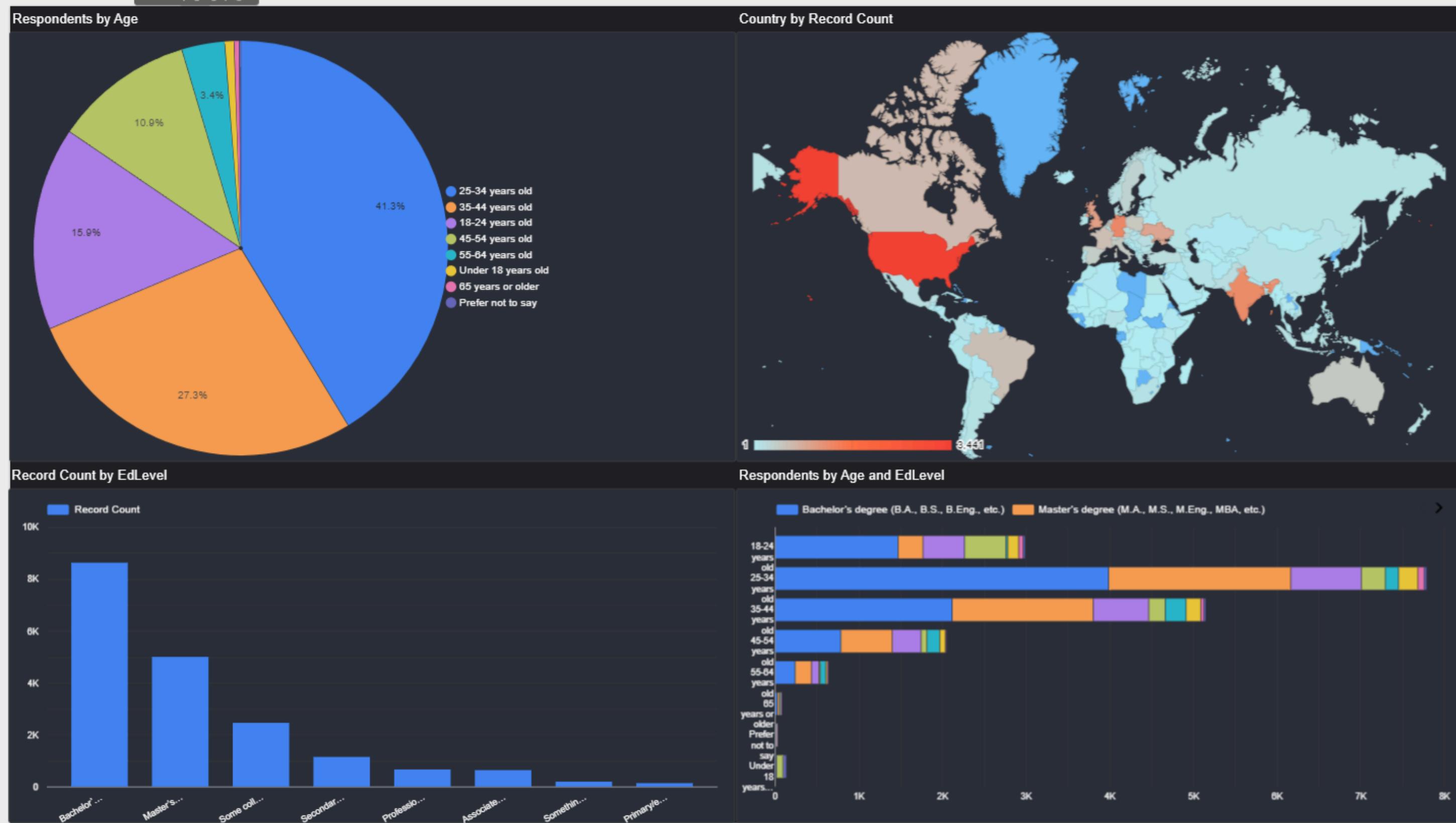
DASHBOARD TAB 1



DASHBOARD TAB 2



DASHBOARD TAB 3



OVERALL FINDINGS & IMPLICATIONS

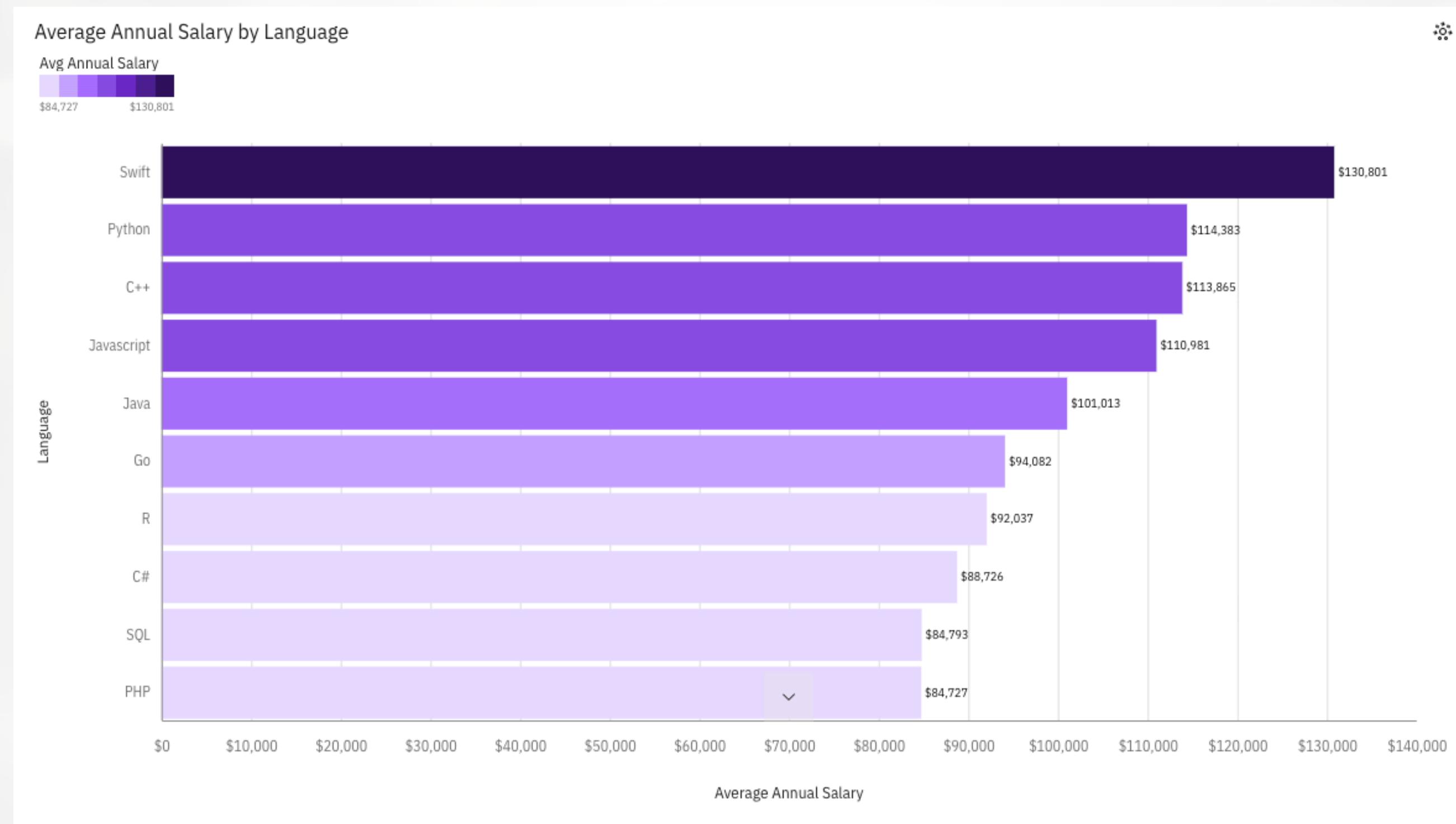
FINDINGS

- Majority of respondents are male
- Most of the respondents were between the ages of 22-32
- Most of the respondents are from developed english speaking nations
- The most important factor for a Job is the Languages and Technologies used
- Python has one of the highest salaries and most jobs available, that could be the reason for the surge in desire

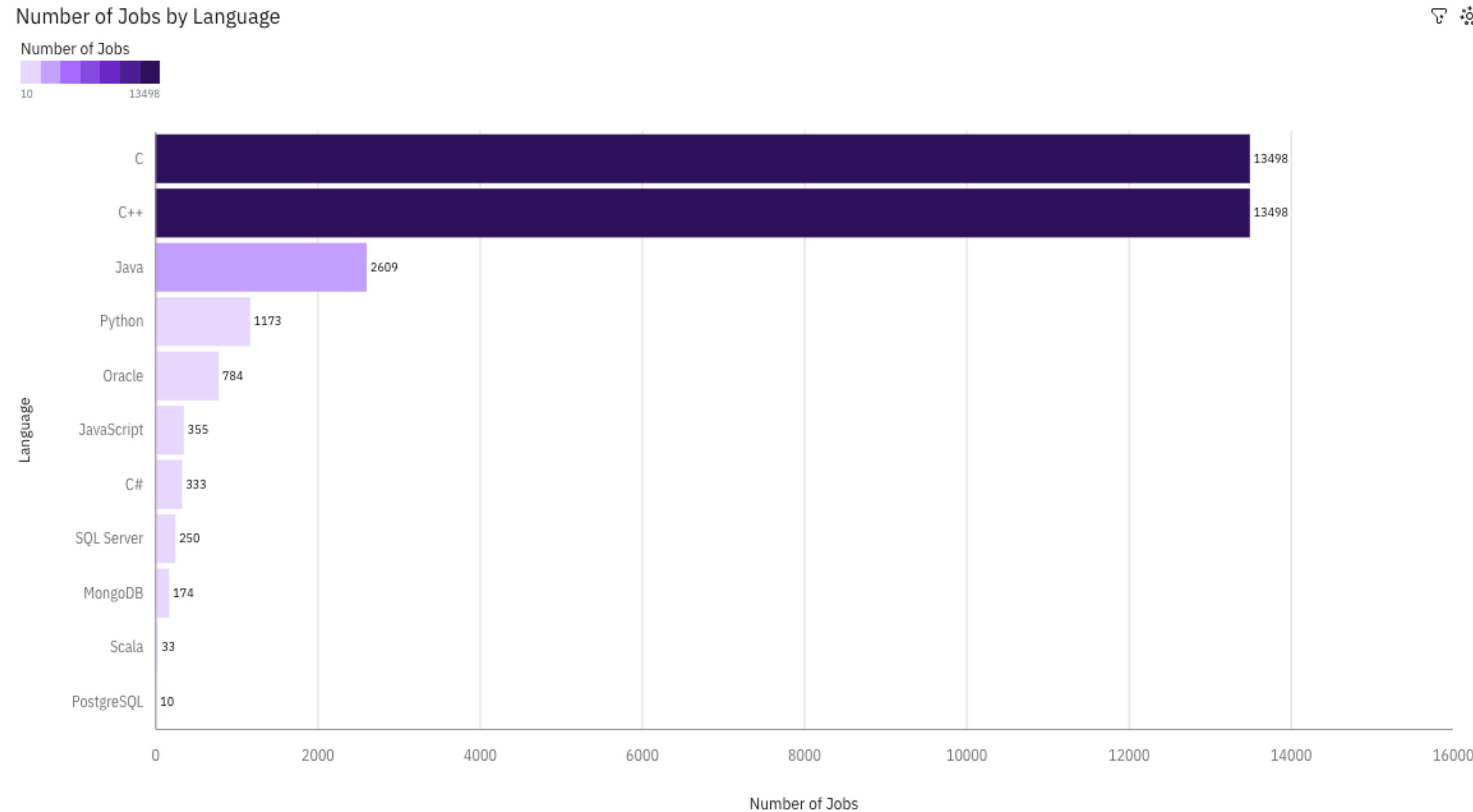
IMPLICATIONS

- The respondents being more no the young side could explain the tendency to want to adopt newer languages and technologies
- All the technologies in the survey are English-based, this could stem from the respondents being predominantly English
- Since developers choose jobs based on technologies used it could sway employers to embrace those technologies to draw in talent

POPULAR LANGUAGES



JOB POSTINGS





THANK YOU