



TECHNOLOGY TREND ANALYSIS

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OUTLINE

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

EXECUTIVE SUMMARY

- ☐ Present Trend in Programming Language & Databases Used
- ☐ Future Technology Trend
- ☐ Top Programming Languages to be learned
- ☐ Top Databases to be learned
- ☐ Top Web platform to be used
- ☐ Demographic survey
- ☐ Gender gap in Job
- ☐ Country wise gap in Job



INTRODUCTION

- About:

This report presents a comprehensive analysis of current technology trends based on a survey encompassing more than 160 million respondents across various programming languages, databases, platforms, and web frameworks.

The data was evaluated to identify prevalent technologies and forecast anticipated shifts for the upcoming year.

- Purpose of this Analysis:

- Identify the top programming languages, database, platform and web frame skills in demand
- Identify skill requirements for future
- Identify human resource gap in the industry

- Audience for this Presentation :

- Programmers
- IT industry leaders
- Computer science students



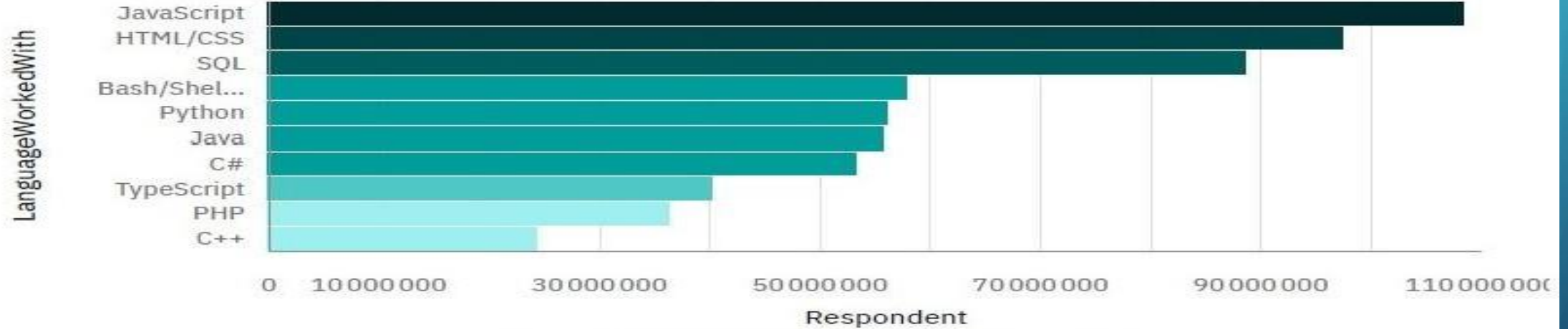
METHODOLOGY

- Data Collection (Sources)
 - Stack overflow developer 2019 survey
 - GitHub job postings
 - Programming languages annual salary
- Considerations
 - Sampling Bias: Acknowledge potential biases due to online surveys
- Data Wrangling
- Data Exploration
- Data Cleaning
- Data Visualization
 - Python matplotlib & Seaborn
 - IBM Cognos Analytic
- Presentation

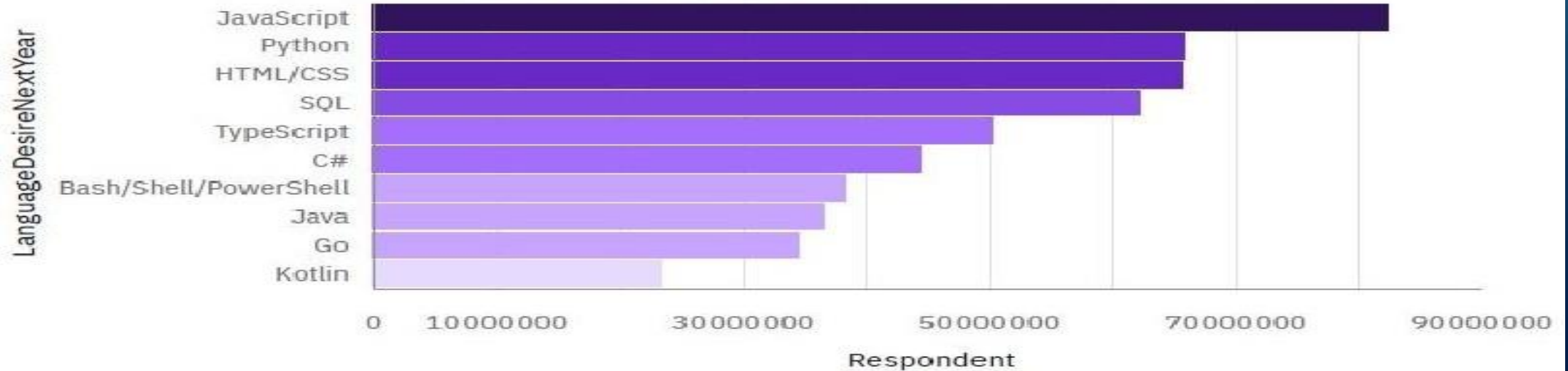


PROGRAMMING LANGUAGE TRENDS

TOP 10 Languages Worked With



Top 10 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

FINDINGS

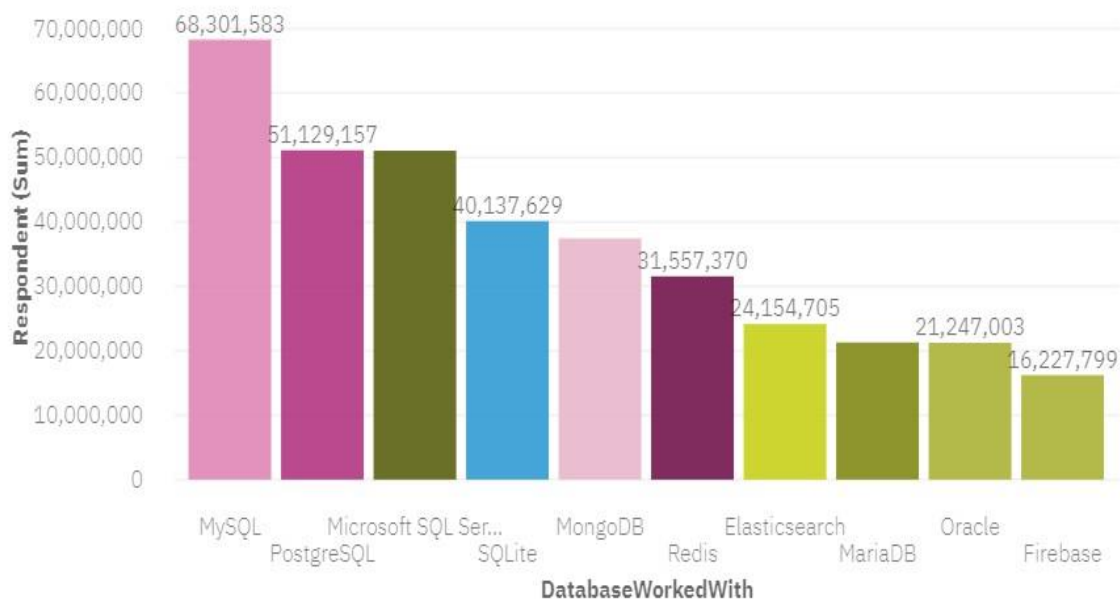
- JavaScript is top trending language in the world
- Python and TypeScript are becoming more and more popular
- HTML/CSS and SQL still has great portion in language usage trend

IMPLICATIONS

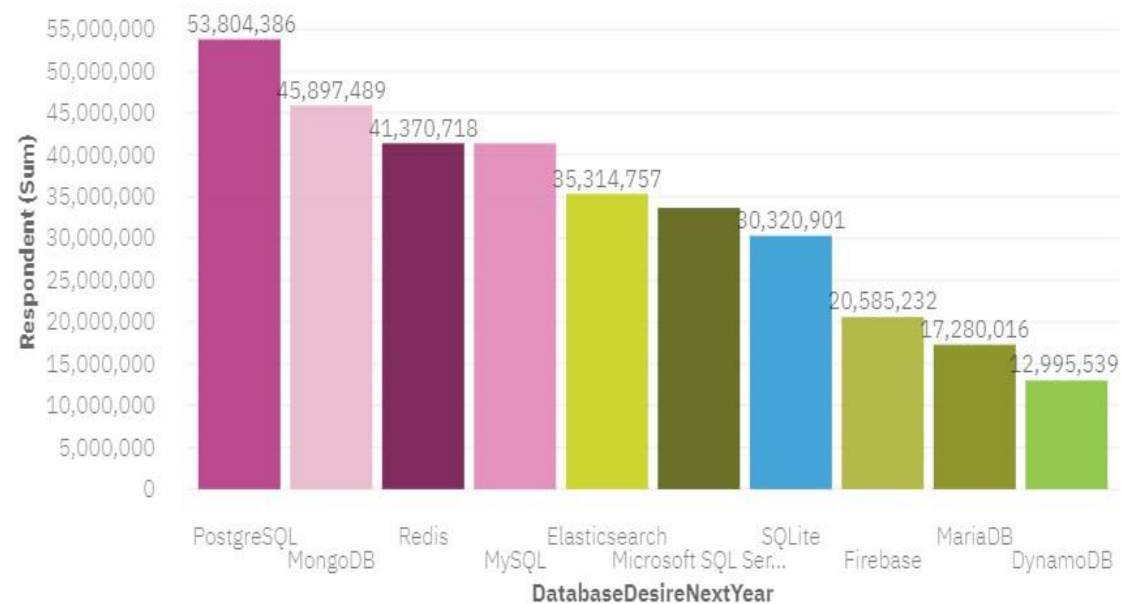
- Web developments and Web developers are still in high demands
- JavaScript and TypeScript are crucial to learn for developers
- Python is the new trending language, especially popular in AI fields

DATABASE TRENDS

Top 10 Databases



Top 10 Database Desire Next Year



DATABASE TRENDS TRENDS - FINDINGS & IMPLICATIONS

FINDINGS

- PostgreSQL and MongoDB's
- Increased Appeal.
- MySQL and Microsoft SQL Server show a decrease in desired adoption for the next year.
- Redis and Elasticsearch maintain consistent usage patterns.

IMPLICATIONS

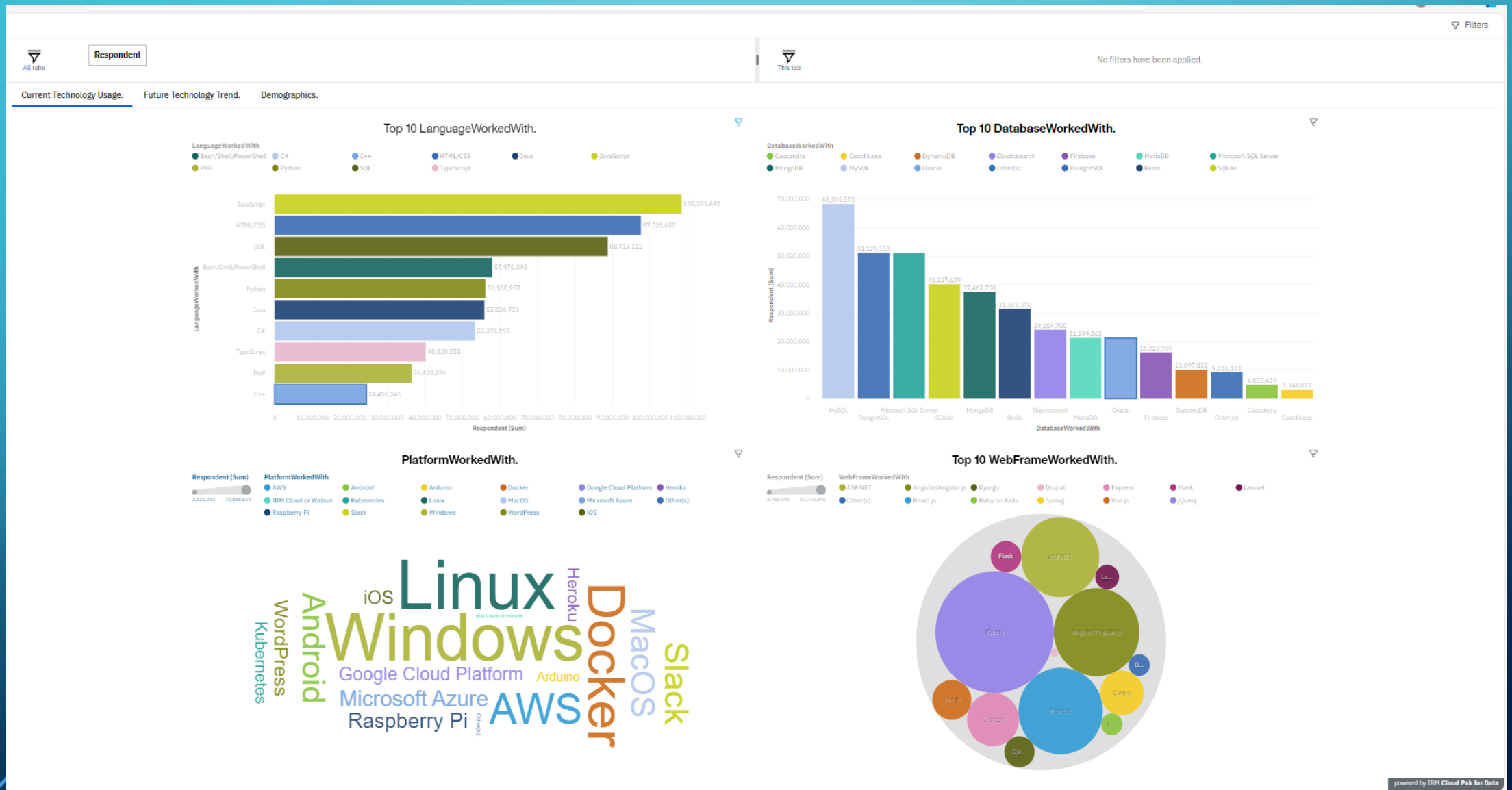
- A potential shift towards
- PostgreSQL and MongoDB
- Decreasing desire for adoption may necessitate reevaluation and reviewing investment in MySQL and Microsoft SQL Server
- Stable usage of Redis and Elasticsearch suggests reliability in specific functionalities.

DASHBOARD



- The permanent link of the read-only view of the Cognos analytic dashboard:
- <https://dataplatform.cloud.ibm.com/dashboards/0c713c47-3f78-4bf8-a83e-d29be3d6acad/view/0f1fd82a1cb21cf211cfbde407cb2f002866265eb2bbd703d3837b490a677897a93812c3c82f4e0edf405664a5ed44509b>

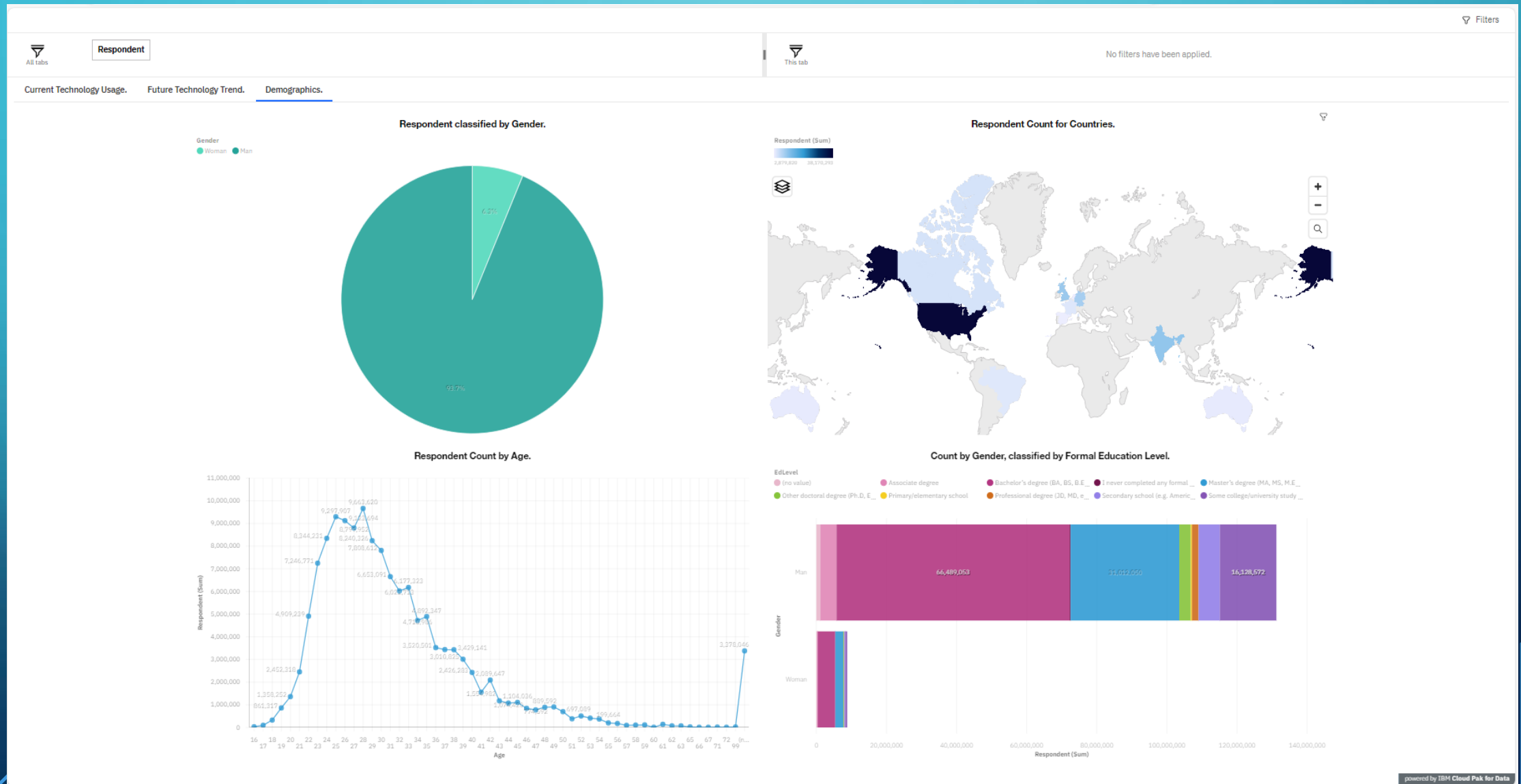
CURRENT TECHNOLOGY USAGE



FUTURE TECHNOLOGY TREND



DEMOGRAPHICS



OVERALL FINDINGS & IMPLICATIONS

FINDINGS

- Technology trends changes every year
- USA is the top technology country
- There are extreme gender and age discrimination
- Docker and AWS are the most popular platform
- Consider hybrid technology strategies that blend diverse languages, databases, platforms, and frameworks based on specific project needs.

IMPLICATIONS

- Programmers should always follow the latest technology trends
- More countries should have the equal chance to be exposed to new technology
- Gender and Age should not be one of the concerns or benefits of Employment
- Encourage learning environments that support multiple languages and technologies to adapt to evolving industry demands.

CONCLUSION

- Embrace Python's Growth

Organizations could invest in Python-related training and tools to leverage its expanding applications.

- Review Technology Stacks

Consider reevaluating technology stacks with declining interest, exploring newer alternatives aligned with emerging trends.

- Reassess MySQL and Microsoft SQL Server

Consider diversifying database technologies to align with evolving project requirements.

- Maintain Emphasis on Stable Platforms

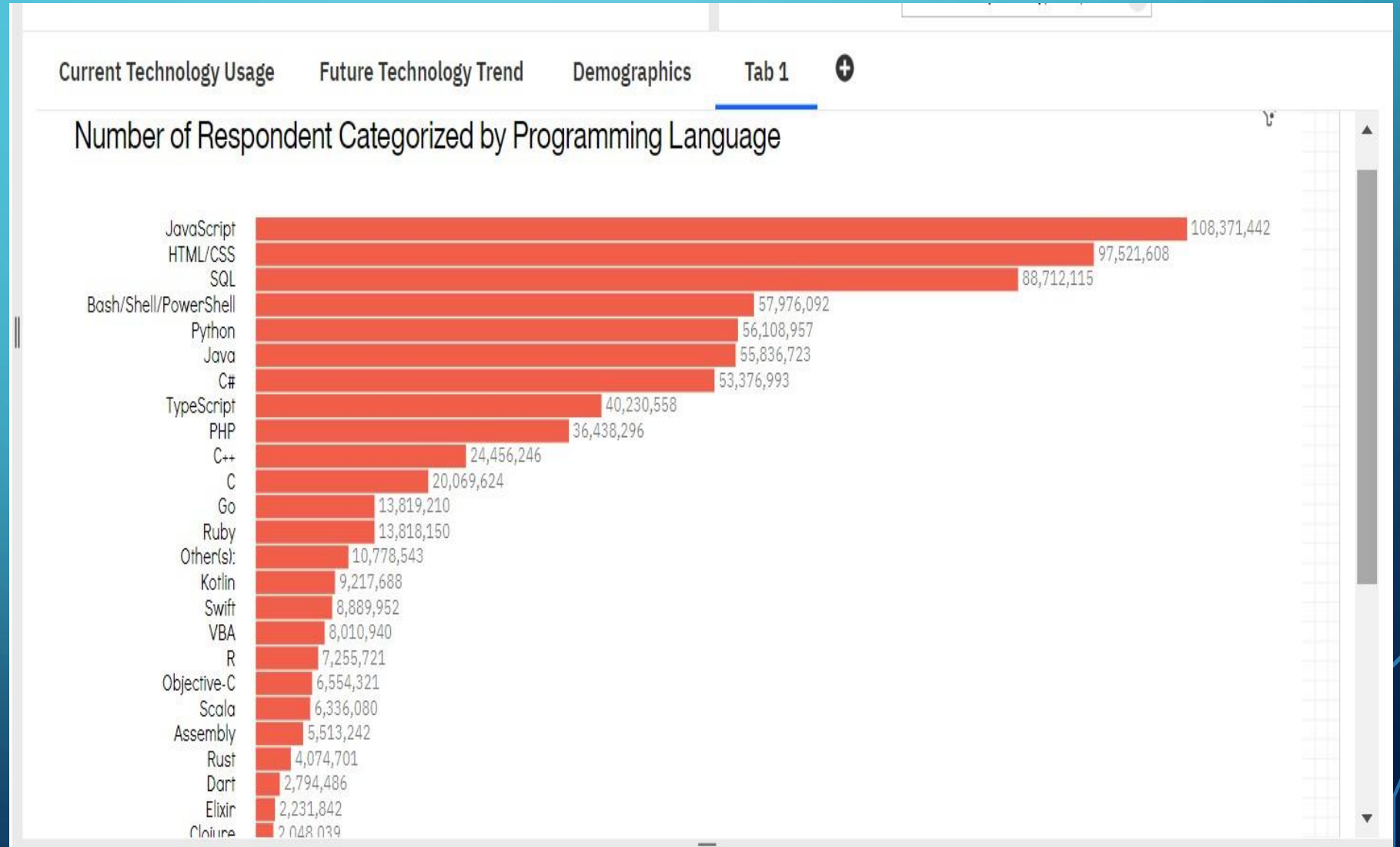
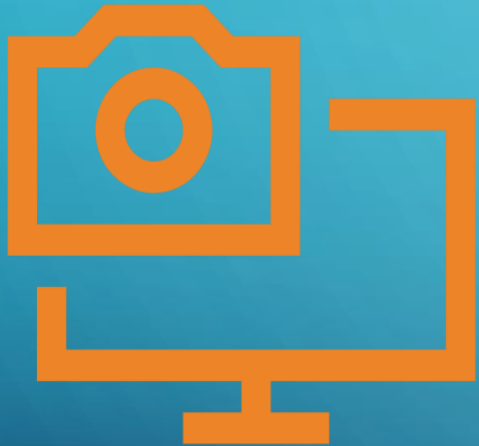
Linux, Docker, and AWS should retain focus, considering their consistent interest.

- Ensure Framework Relevance:

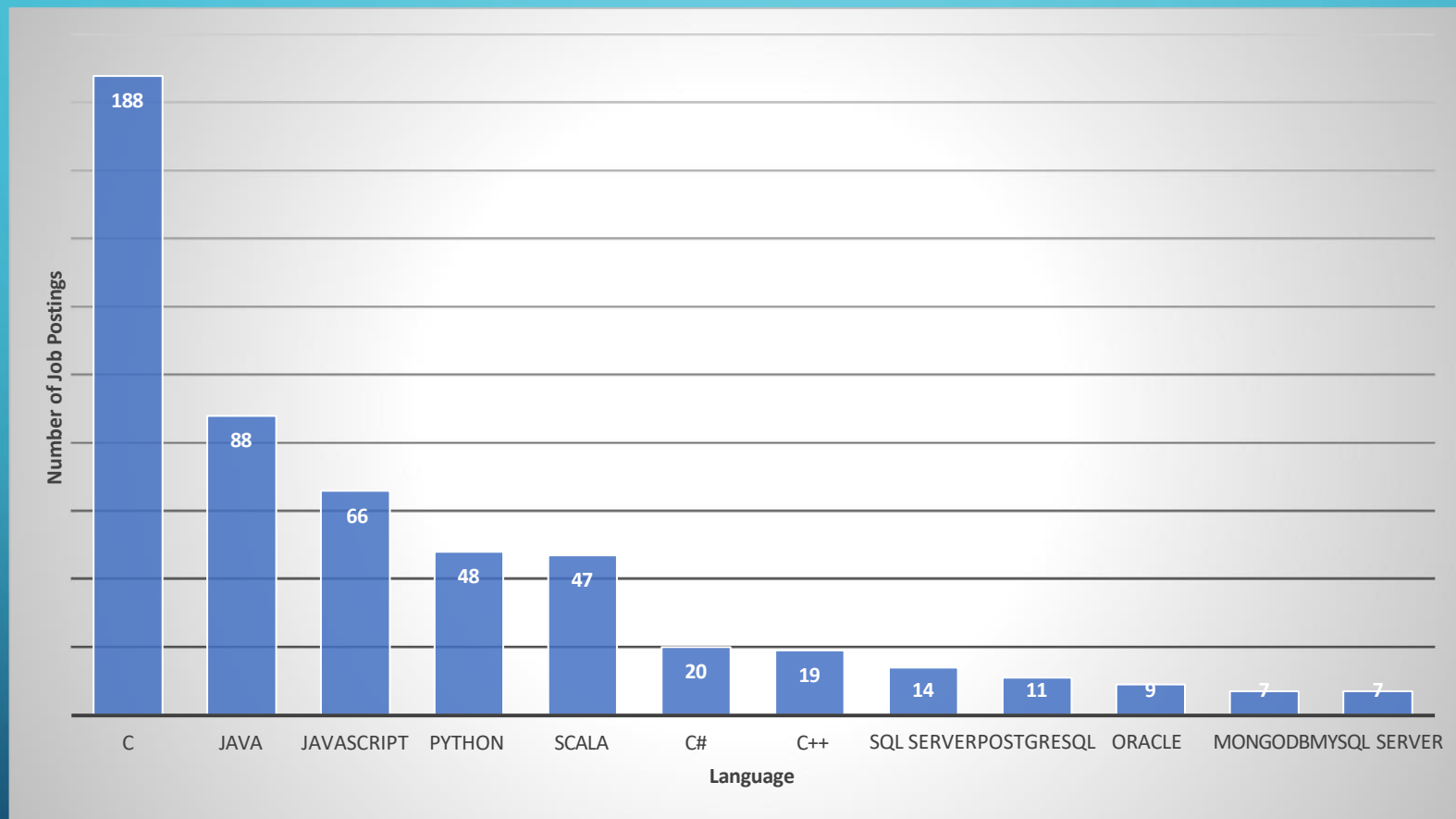
Continue support and training for stable web frameworks integral to web development.



APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

