



Popular programming languages Data Analysis

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OUTLINE



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- Discussion
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EXECUTIVE SUMMARY



- Current popular programming languages are to be determined and analyzed using Data Analysis techniques
- Such a data analysis could be useful in-
 - Predicting future technological trends
 - Equipping the workforce to tackle modern problems
 - Leading the edge in the competitive market
- The data is methodically cleaned, analyzed and visualized
- Important metrics and statistics are inferred from the data

INTRODUCTION



- The modern world faces rapid advancements in technology
- Its impact is even more profound in the IT industry
- New languages and databases evolve and replace older ones in the span of a few years
- In order to keep pace with changing technologies and remain competitive, we analyze data to help identify future skill requirements for
 - Equipping the workforce to tackle modern problems
 - Leading the edge in the competitive market

METHODOLOGY



- The first task is to collect the top programming skills that are most in demand from various sources such as
 - Job postings
 - Training portals
 - Surveys
- We make that data ready for analysis using data wrangling techniques
- Subsequently we apply statistical techniques to analyze the data
- The data is then neatly and clearly visualized

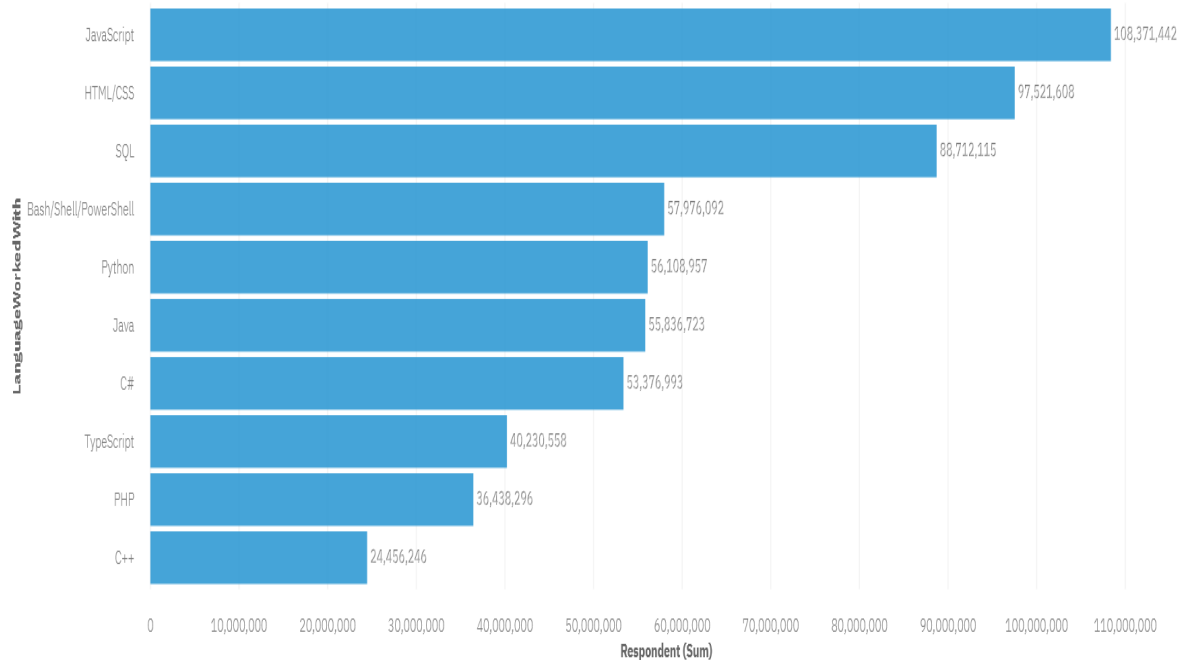
RESULTS

- The top 10 programming languages, databases, platforms and webframes have been scraped, cleaned, analyzed and presented in the subsequent sections.
- The future technological trends have also been analyzed.
- The demography of the survey respondents is also listed.

PROGRAMMING LANGUAGE TRENDS

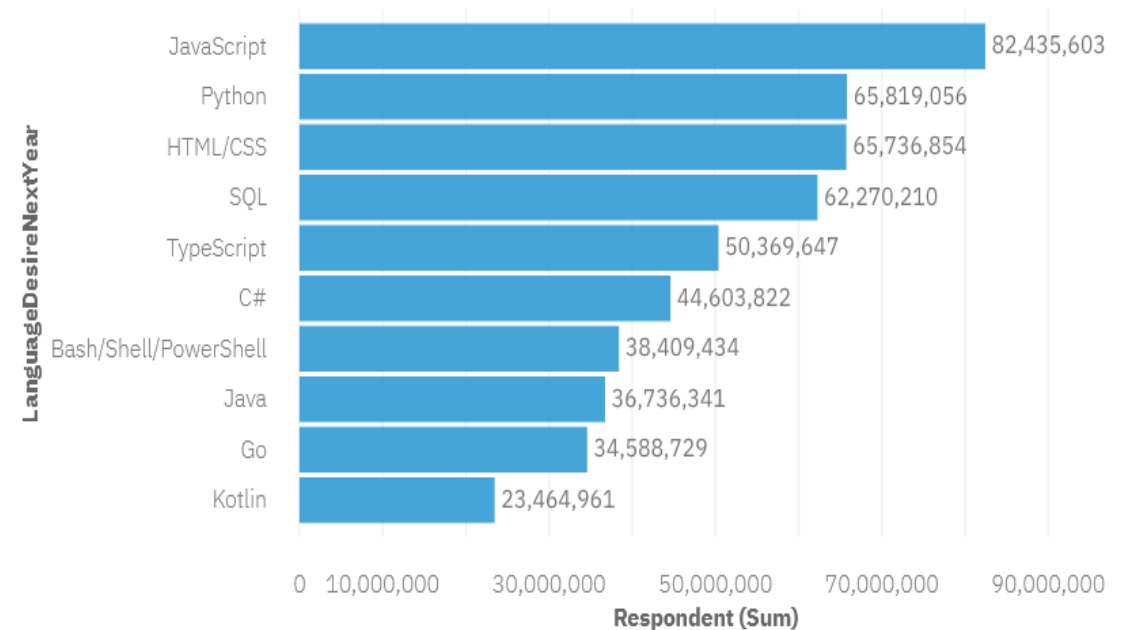
2023

Top 10 Languages



2024

Top 10 Languages next year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Javascript remains the most popular but experiences a decline
- Python is rapidly growing to soon achieve the top spot
- Older languages are being phased out
- Web development languages are more popular than solely programming languages

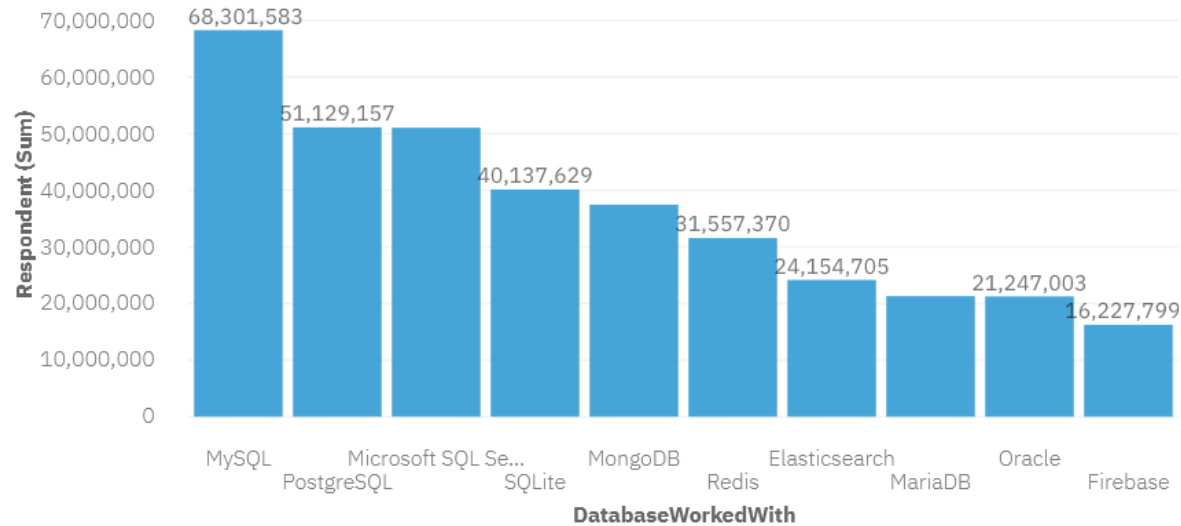
Implications

- Python is exponentially increasing in use and relevance
- Javascript remains the most popular language
- Web development language learners have a higher number of opportunities
- Older languages like C++ are being phased out

DATABASE TRENDS

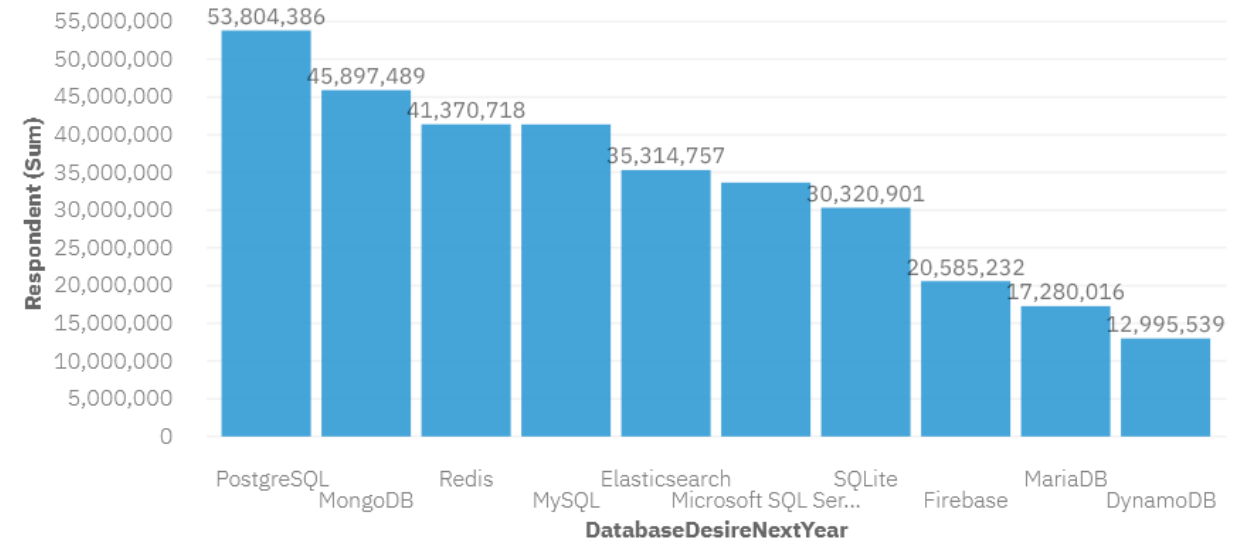
2023

Top 10 database



2024

Top 10 Database next year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL is one of the most popular databases
- MySQL is losing relevance and being replaced by newer databases
- MongoDB is on ascent
- Redis is seeing exponential growth

Implications

- Databases trends are wildly fluctuating
- PostgreSQL remains a popular choice
- Newer databases are replacing older ones
- MySQL sees decline

DASHBOARD



<https://dataplatform.cloud.ibm.com/dashboards/833f7e70-581b-4913-b6ff-292636c69023/view/001ee93861886e935fcac8e407cf7a0f79372154babb845287d77b490e682297a93847c5c82e4c588f100736a1b8160c9a>

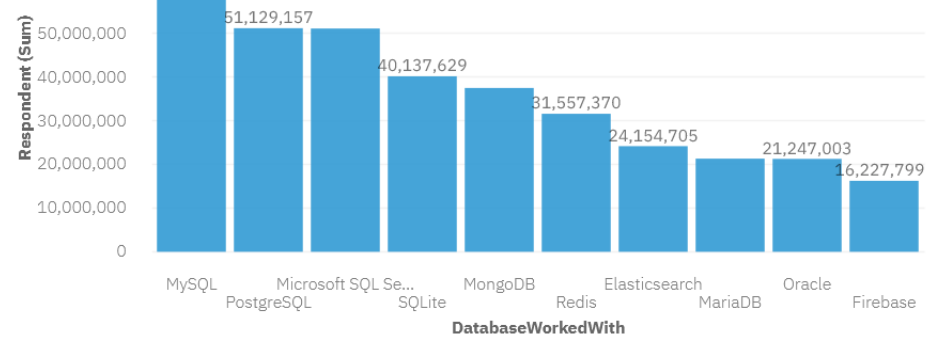
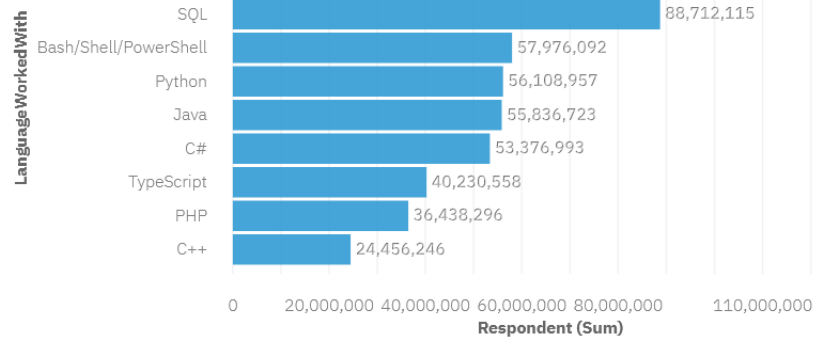
DASHBOARD TAB 1

Projects / Capstone_Project / Capstone Dashboard

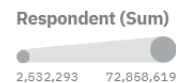


Filters

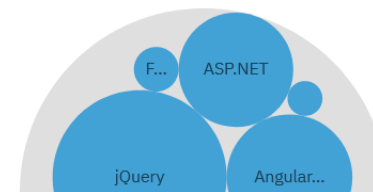
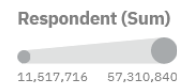
Current Technology Usage Future Technology Trend Demographics



Platforms



Top 10 Webframes



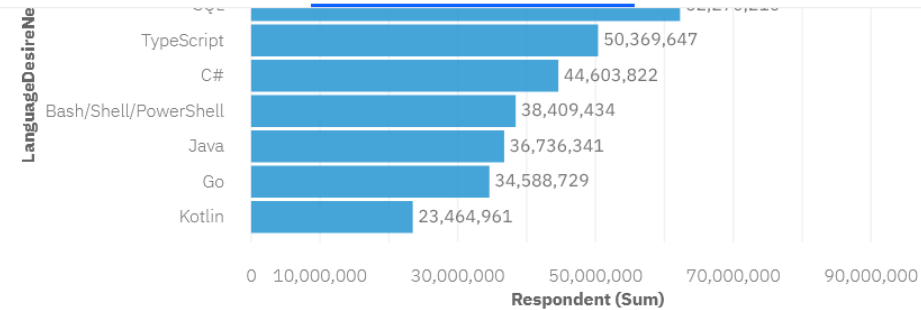
DASHBOARD TAB 2

Projects / Capstone_Project / Capstone Dashboard



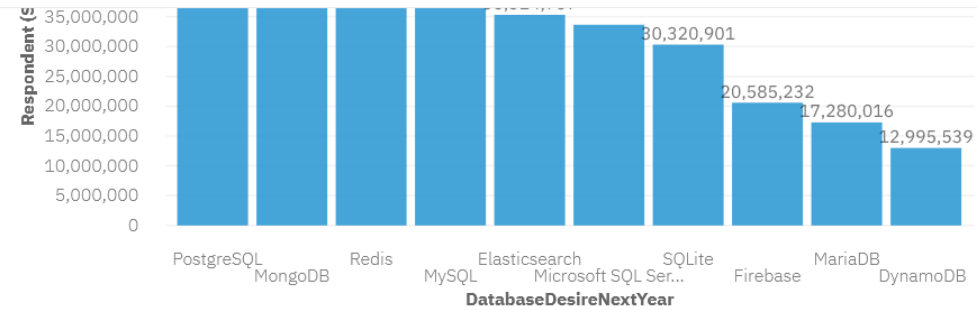
Filters

Current Technology Usage

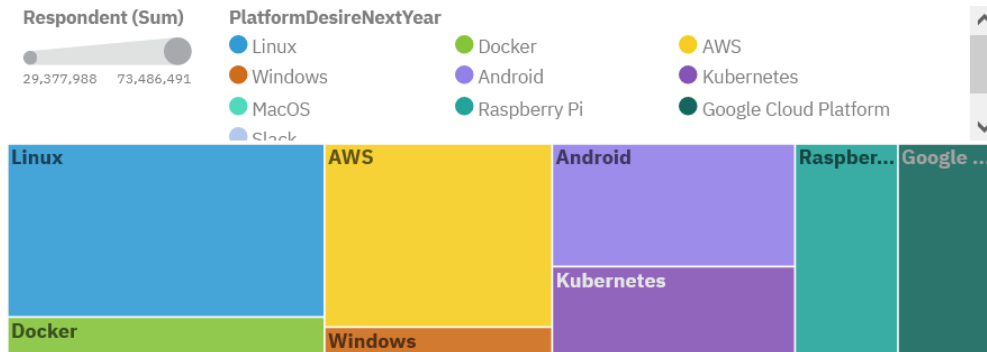


Future Technology Trend

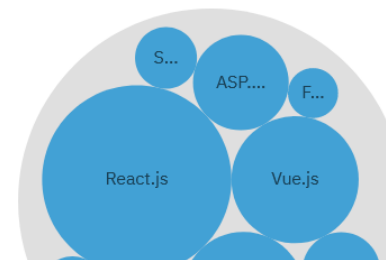
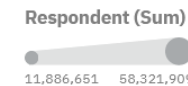
Demographics



Platforms Desired



Top 10 Webframes



DASHBOARD TAB 3

Projects / Capstone_Project / Capstone Dashboard

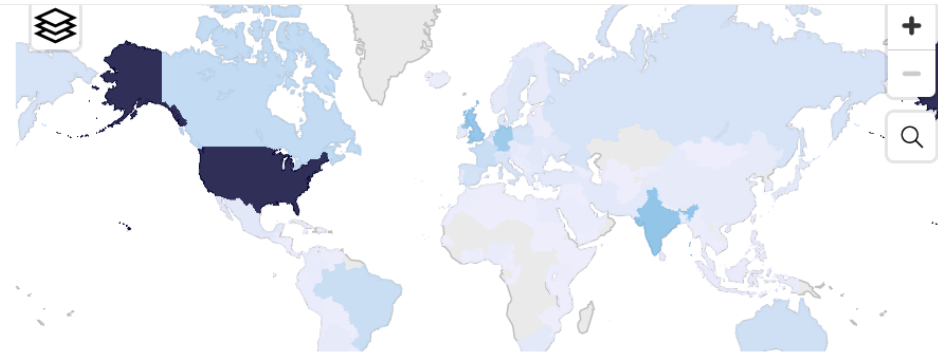
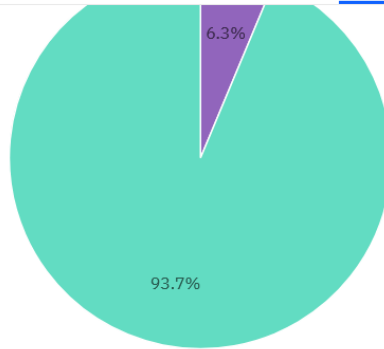


Filters

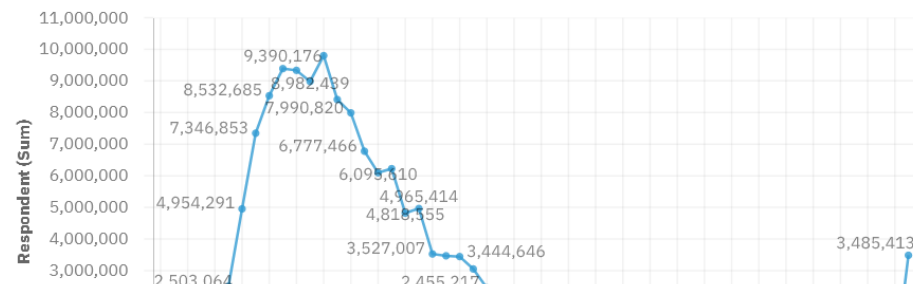
Current Technology Usage

Future Technology Trend

Demographics



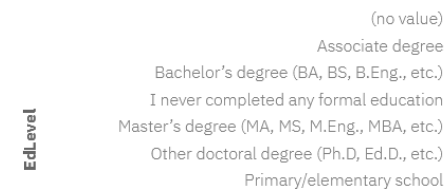
Respondents by Age



Education level by Gender

Gender

Man Woman



DISCUSSION

We discuss important findings and implications in the next section

OVERALL FINDINGS & IMPLICATIONS

Findings

- Javascript remains one of the most popular programming languages
- Popularity of Python is in rapid ascension
- PostgreSQL is one of the most popular Databases
- MySQL is losing relevance

Implications

- Web development language learners have a higher number of opportunities
- Python is exponentially increasing in use and relevance due to its wide variety of uses
- Older languages like C++ are being phased out
- Newer databases are replacing older ones

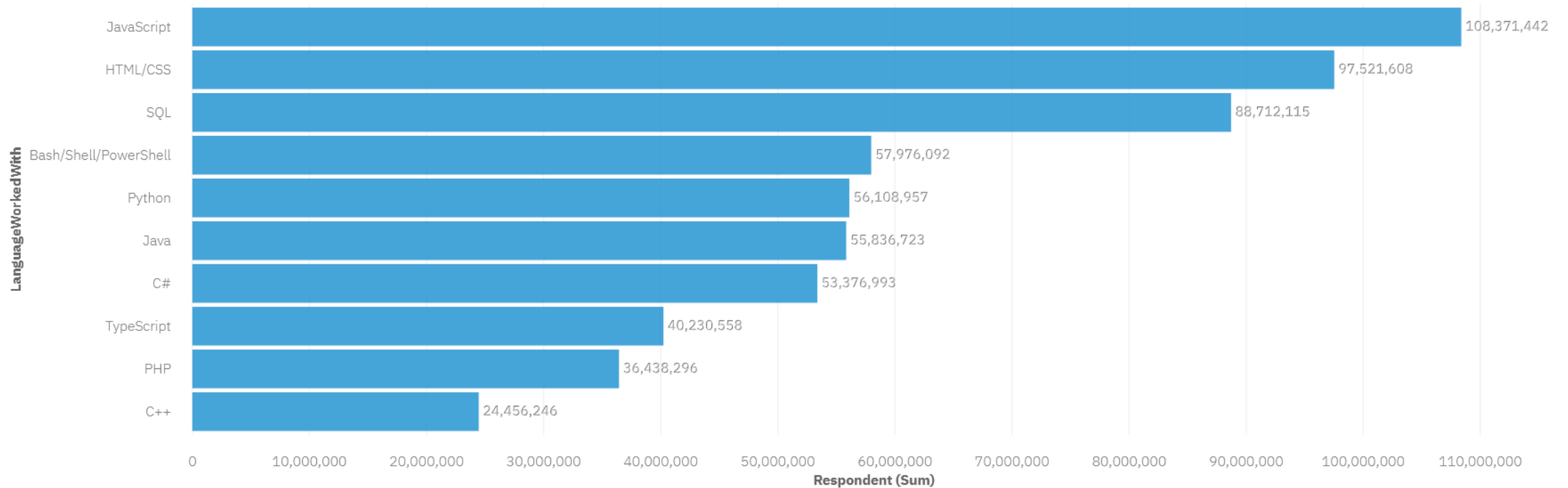
CONCLUSION



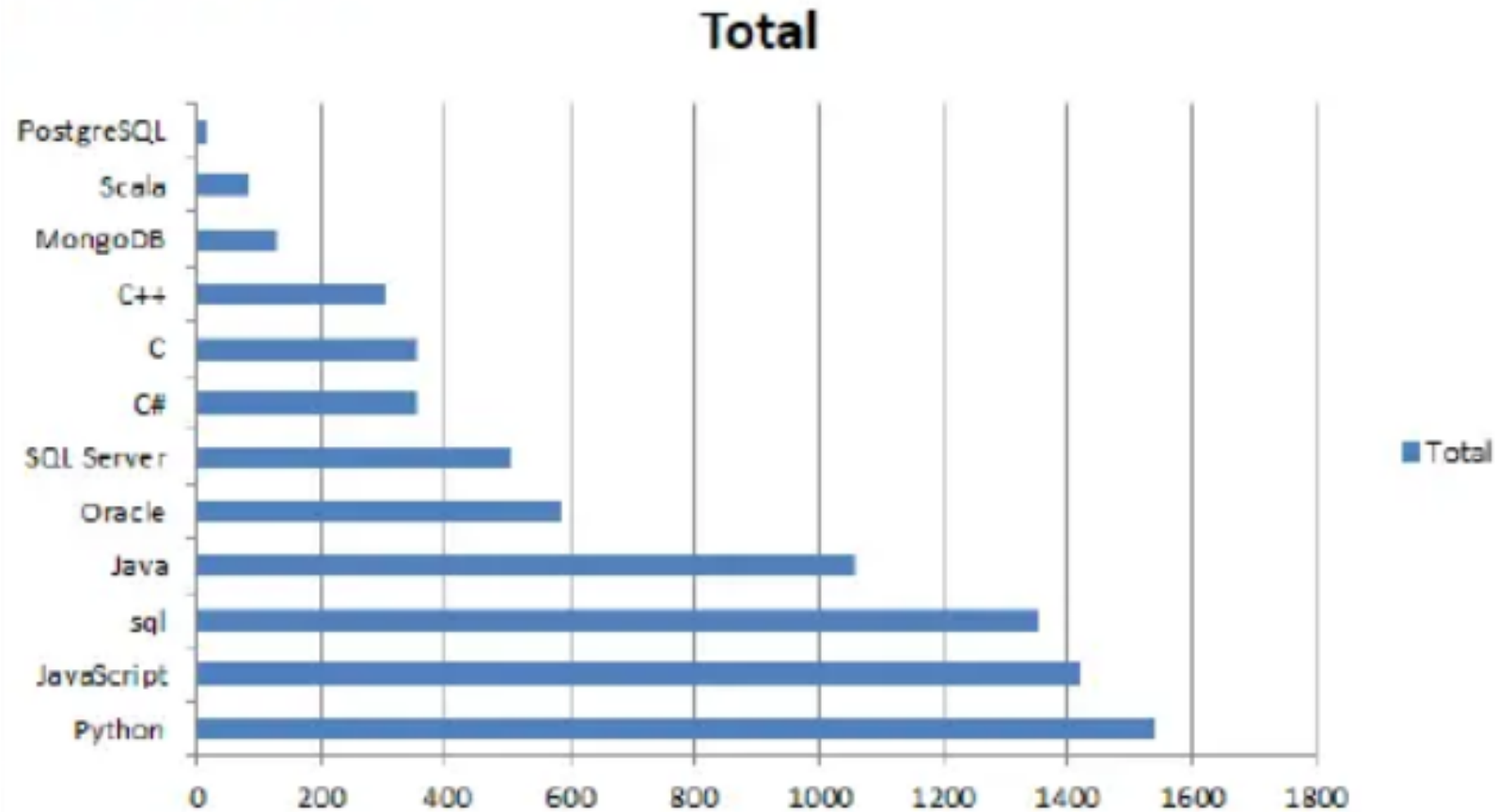
- Python and Javascript are one of the most widely used programming languages with great future
- PostgreSQL is one of the most popular databases
- Respondents are mainly in the 20s-30s age group
- Male respondents far outweigh female respondents

APPENDIX

Top 10 Languages



JOB POSTINGS



POPULAR LANGUAGES

