



IBM Data Analyst Capstone Project

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OUTLINE



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EXECUTIVE SUMMARY



- JavaScript, Python, HTML/CSS, SQL, and TypeScript are the programming languages which are most desired for next year.
- PostgreSQL, MongoDB, Redis, MySQL, and Elasticsearch are the databases which people most want desire for next year.
- JQuery is the web frame which most people have worked with.
- Male gender is greatly represented in the IT industry
 - Male: 93.7%
 - Female: 6.3%

INTRODUCTION



- Stack Overflow, released its annual Developer survey which includes around 90.000 developers responses about:
 - Programming Languages
 - Databases
 - Demographics
- Target audience:
 - IT professionals
 - Developers from 179 countries

METHODOLOGY



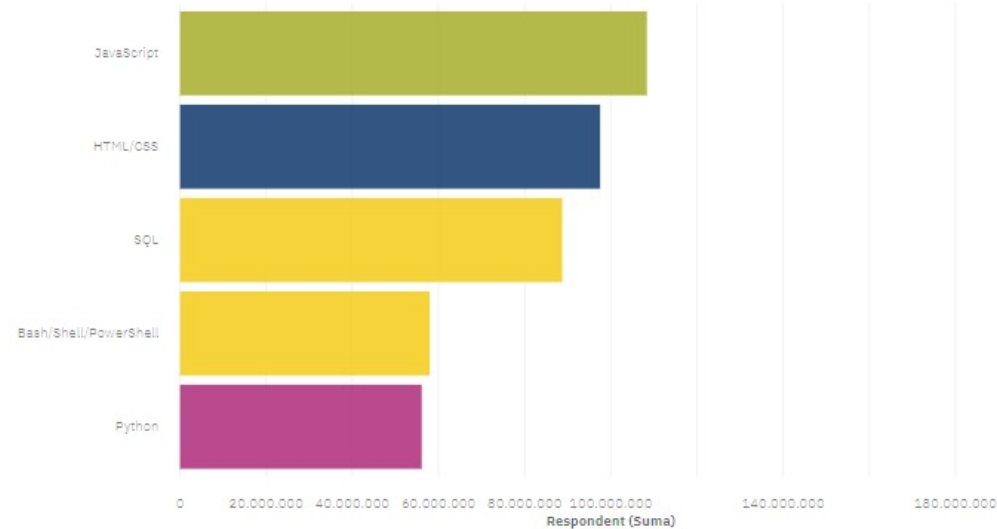
- Data Sources:
 - Stack Overflow survey 2019
 - Git-hub Job Posting
 - Programming Language Annual Salary
- Data Exploration and Cleaning
 - Python
- Data Visualization
 - IBM Cognos Analytics
- Presentation

RESULTS

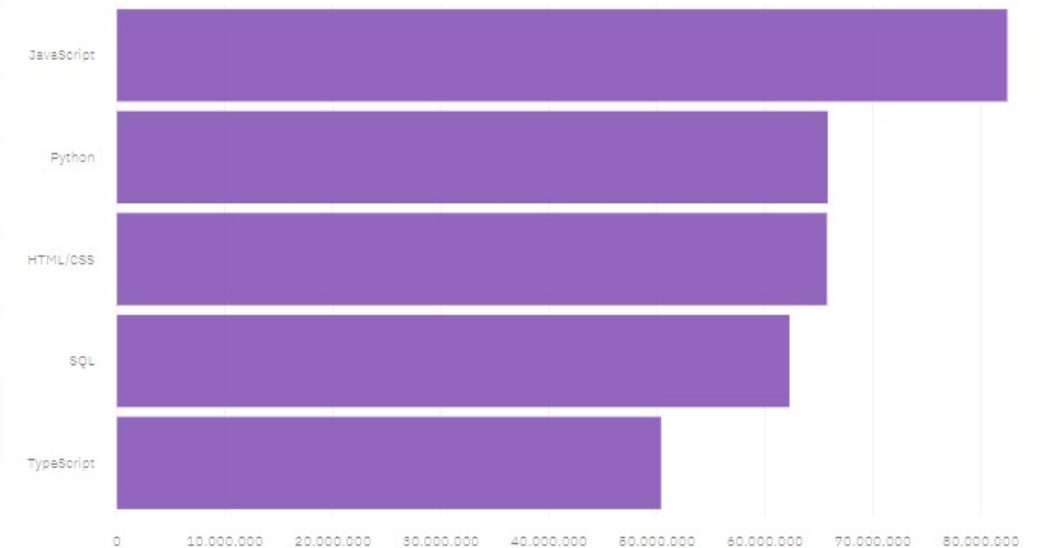


PROGRAMMING LANGUAGE TRENDS

Top 5 Languages worked with



Top 5 Language desire for next year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

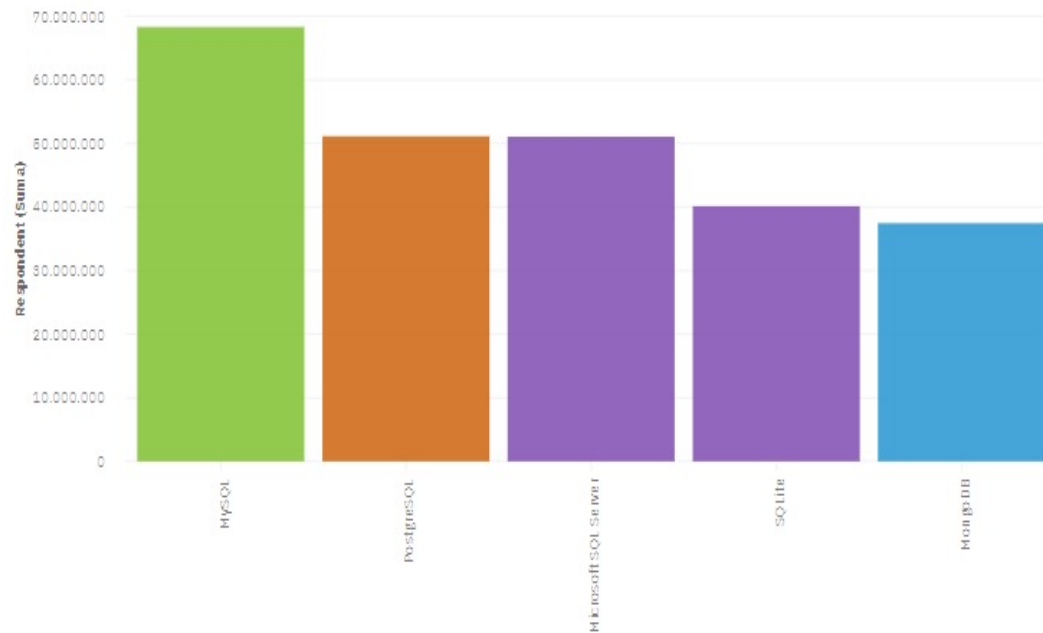
- JavaScript is the most demanding programming language.
- Python is the fastest growing programming language.
- Skills in TypeScript are the most desirable for next year.

Implications

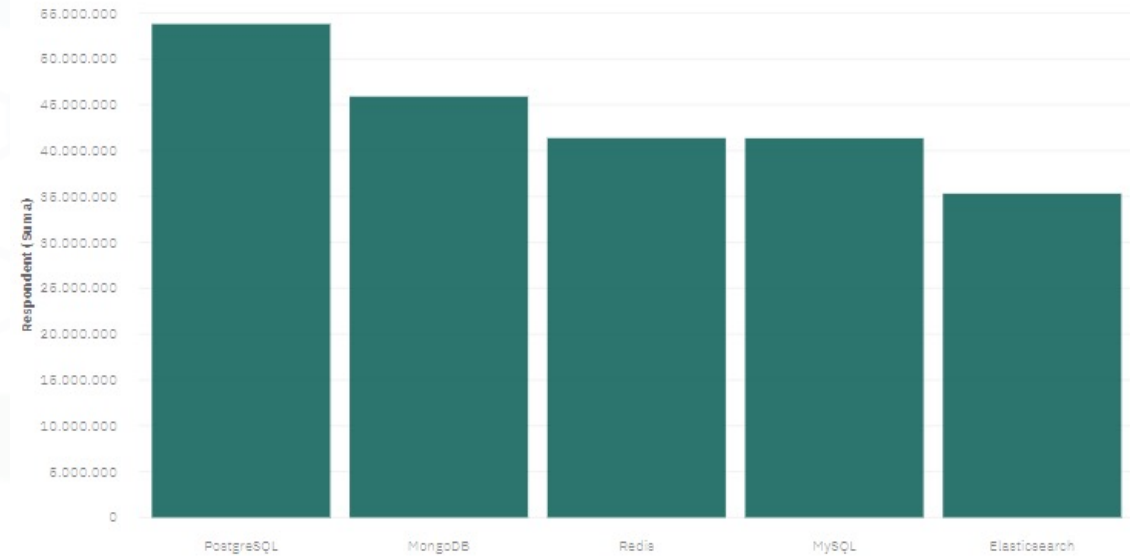
- Python being the fastest growing programming language will probably overtake JavaScript in the future.
- JavaScript, Python and HTML/CSS have been in constant demand.
- Web development has a high demand.

DATABASE TRENDS

Top 5 Database worked with



Top 5 Database desire for next year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL and Mongo DB are the two more desirable databases for next year.
- MySQL seems to be losing interest.

Implications

- PostgreSQL is the most consistent database regarding demand.
- Open-source databases seems to be preferred.

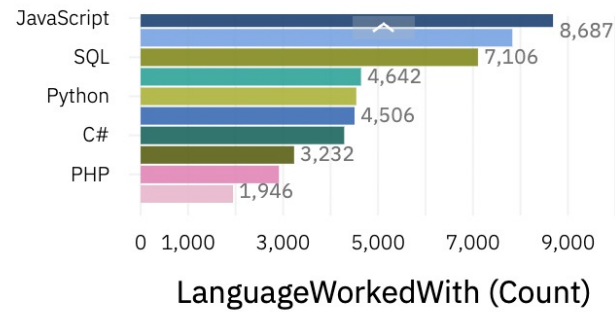
DASHBOARD



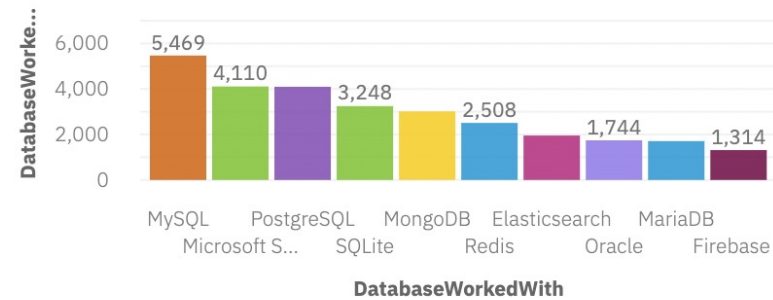
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DASHBOARD TAB 1

Top10 language worked with



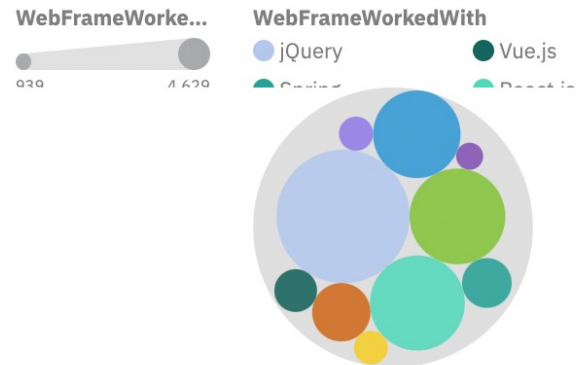
Top 10 database work with



Platform WorkedWith

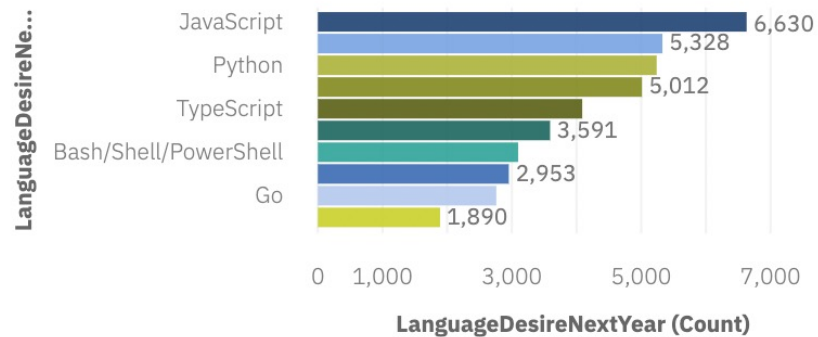


Top 10 WebFrameWorkedWith

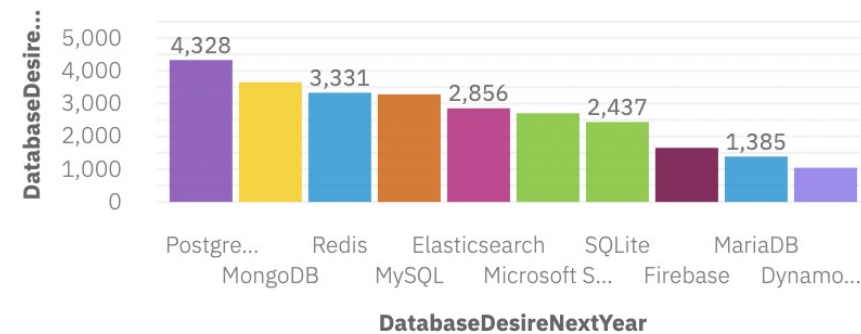


DASHBOARD TAB 2

Top 10 LanguageDesireNextYear



Top 10 DatabaseDesireNextYear



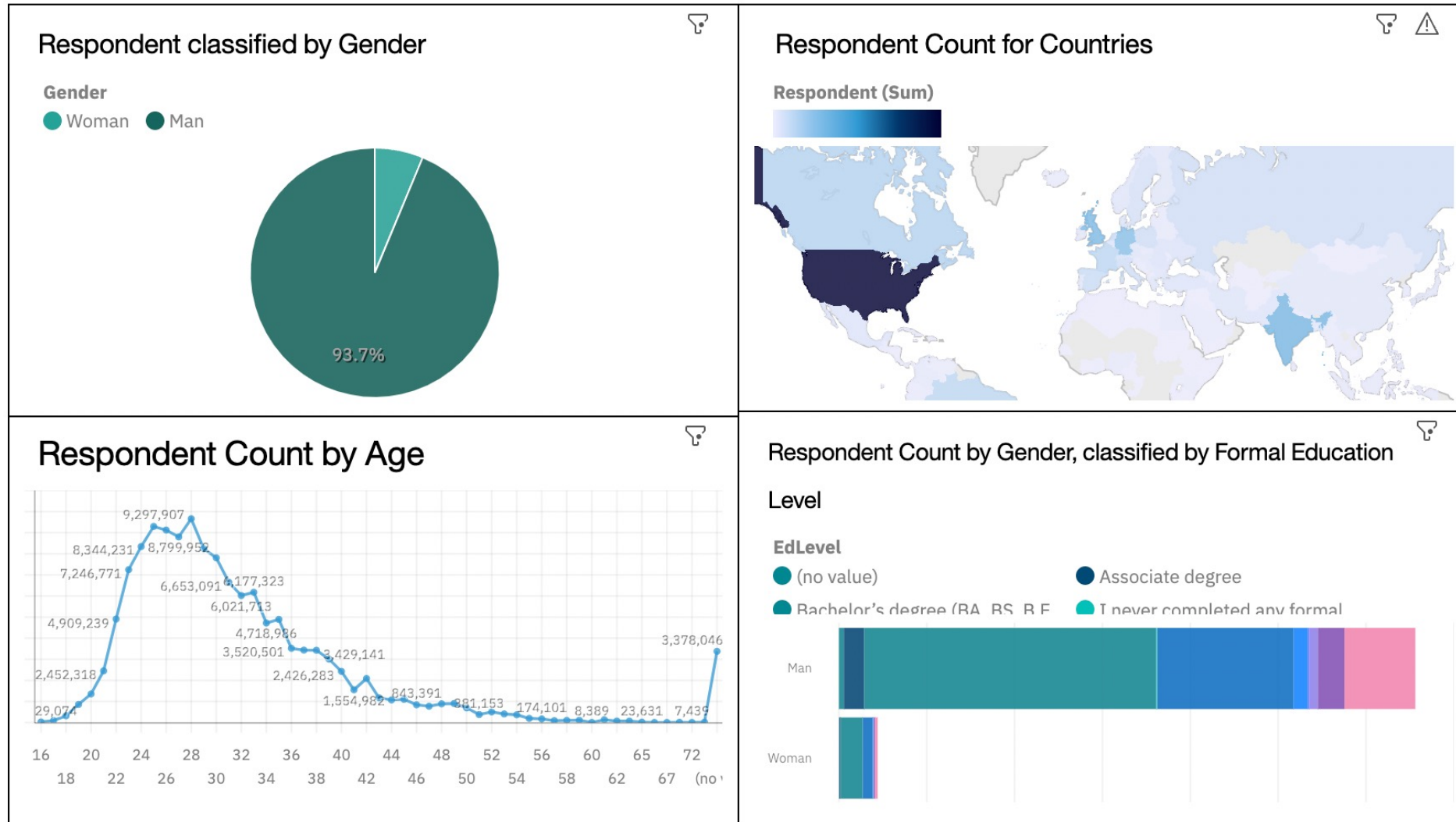
PlatformDesireNextYear



Top 10 WebFrameDesireNextYear



DASHBOARD TAB 3



DISCUSSION



- IT industry needs to diversify in order to close the gender gap as much as possible.
- New technologies are constantly emerging and leading demand changes.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Python and JavaScript are the most popular programming languages.
- PostgreSQL is the most popular database.
- There is a huge gender gap in the IT field.

Implications

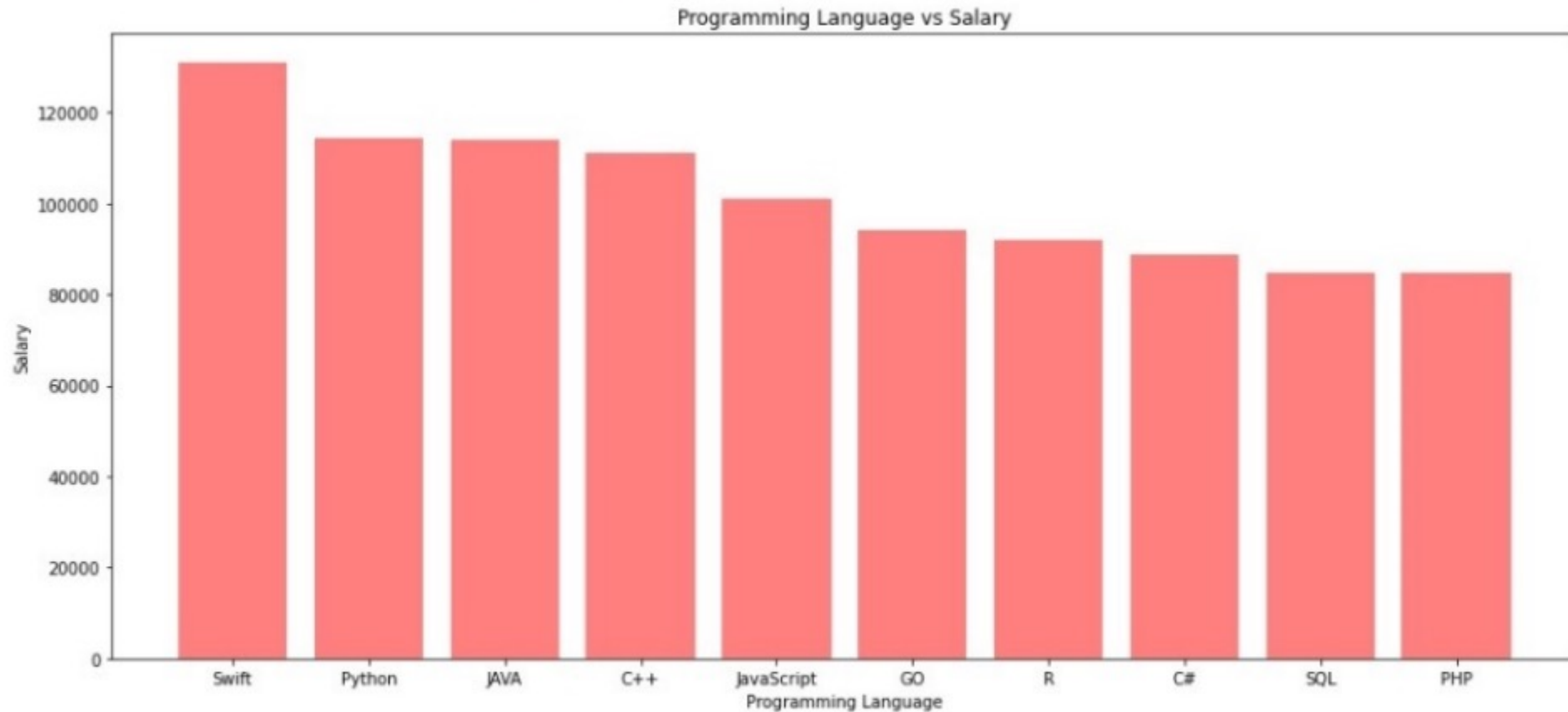
- IT pros need to learn and adapt to new demands in order to keep up.
- People with more skills which are highly demanded will have more job opportunities.
- Gender gap affects job hiring trend.

CONCLUSION



- Python is the fastest growing programming language.
- JavaScript and Python are the most popular programming languages.
- PostgreSQL is the most popular database among developers.
- IT industry needs to diversify.

GITHUB JOB POSTINGS



POPULAR LANGUAGES

