Technology Trends & Analysis Presentation

JANANI R C

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OUTLINE

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- Introduction
- Methodology
- Results
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  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY

- Current Technology Trends
  - Top 10 Programming Languages
  - Top 10 Databases
  - Most used Platforms
  - Top 10 Web Frames
- Future Technology Trends
  - Top 10 Programming Languages desired for the upcoming year
  - Top 10 Programming Languages desired for the upcoming year
  - Most desired platform for the next years
  - Top 10 Web Frames desired for the upcoming year
- Demographics
  - Respondent classification by gender
  - Respondent count for countries
  - Respondent count by age
  - Respondent count by gender and classified by formal education level

INTRODUCTION

- Popular programming languages that are in trend
- Popular databases in trend
- Interactive Dashboards
- Most used platforms and top web frames in demand
- Correlation between numerical data
- Web scrapping sites and accessing Apis to collect data

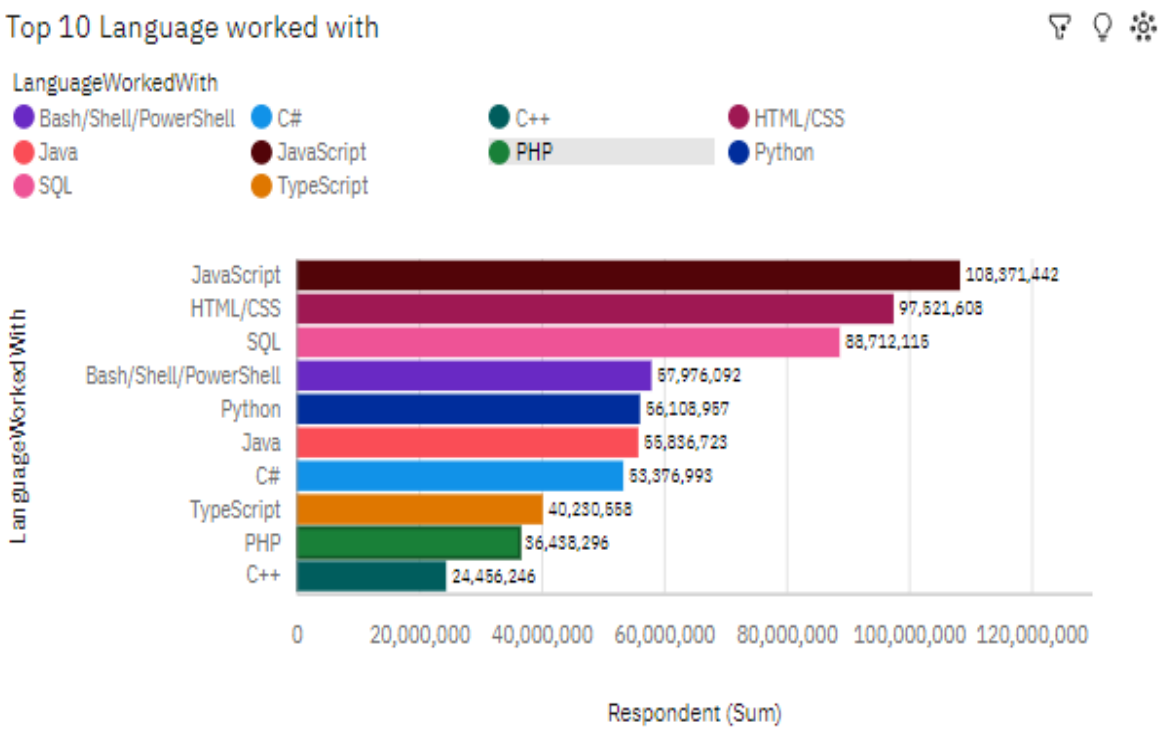
METHODOLOGY

- Collecting Data
  - Collecting Data using APIs
  - Web Scarping
- Exploring the Data set
  - Python
- Data Wrangling
  - Python
- Data Visualization
  - IBM Cognos Analytics
- Presentation

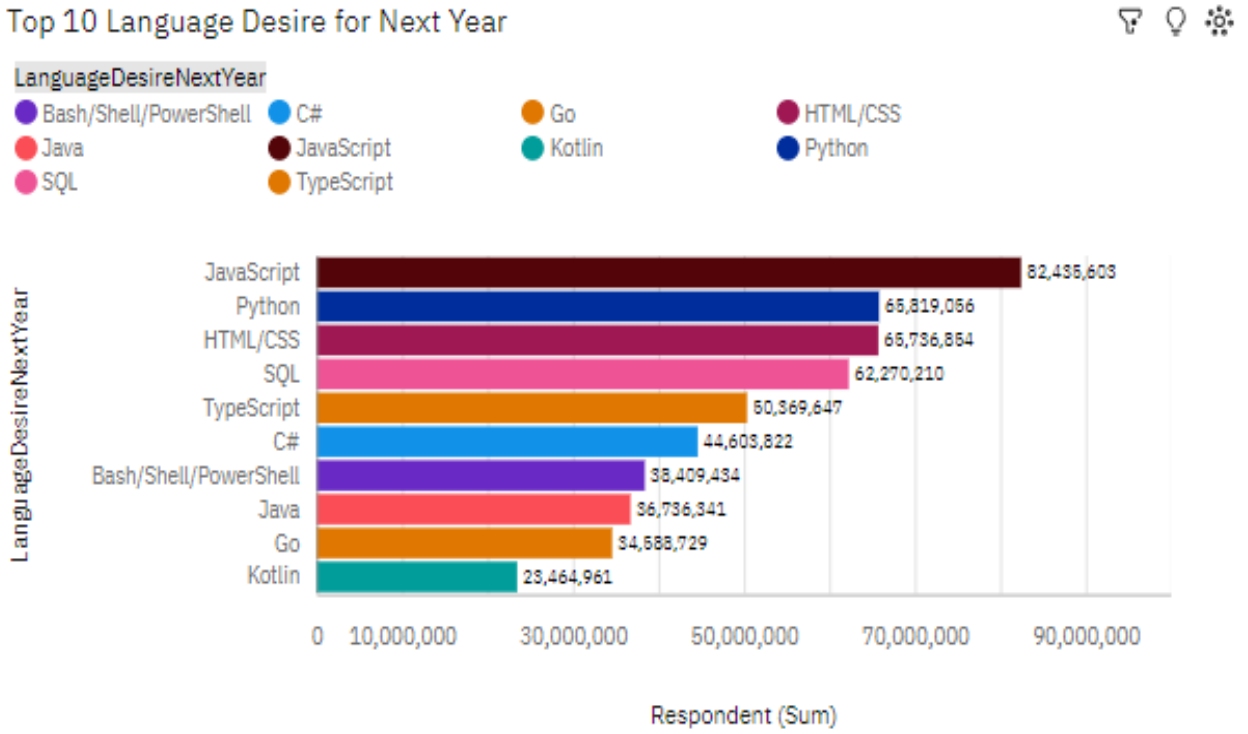
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

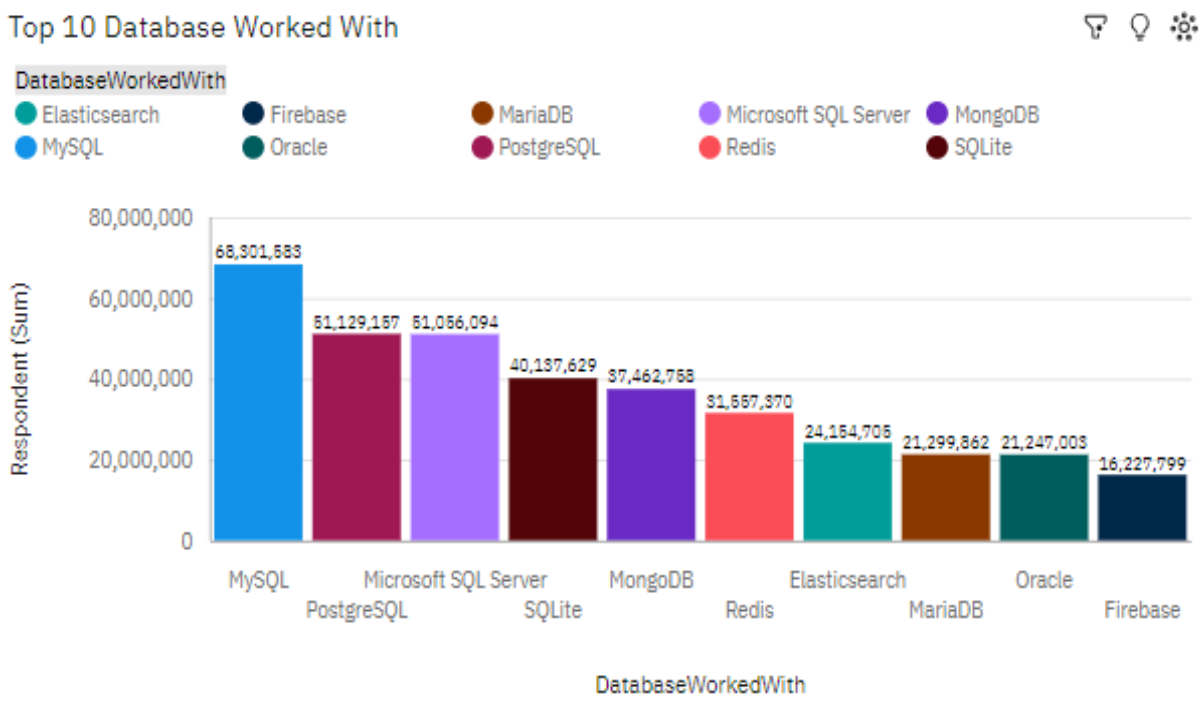
- JavaScript, HTML/CSS,SQL are top 3 trending languages in current and future
- Bash/Shell/Powershell is in constant
- PHP and C++ are losing their demand in upcoming years due to their outdated performance

Implications

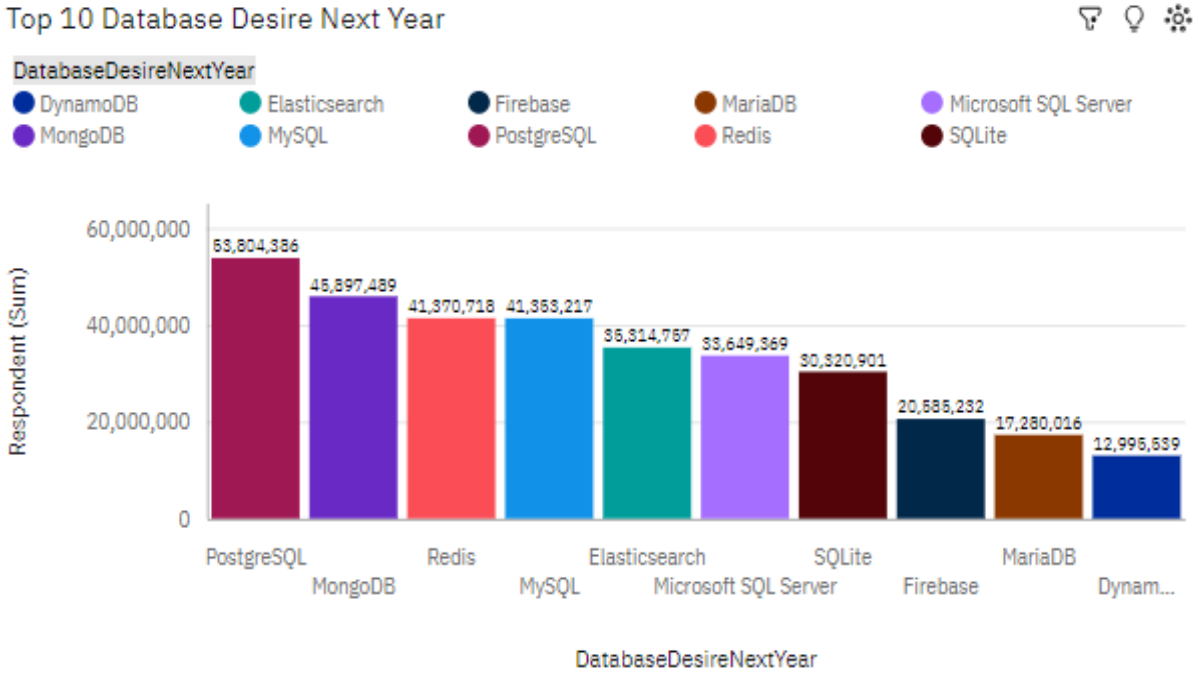
- Python demand has been increasing due to increase in AI & ML
- Web Development will be still in demand
- SQL is in demand sue to its data handling capabilities

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Mysql is in high demand due to its good user interface environment and performance
- Oracle is not in demand as it is not general public users
- Firebase alos lost its demand because it uses old flat data hierarchy

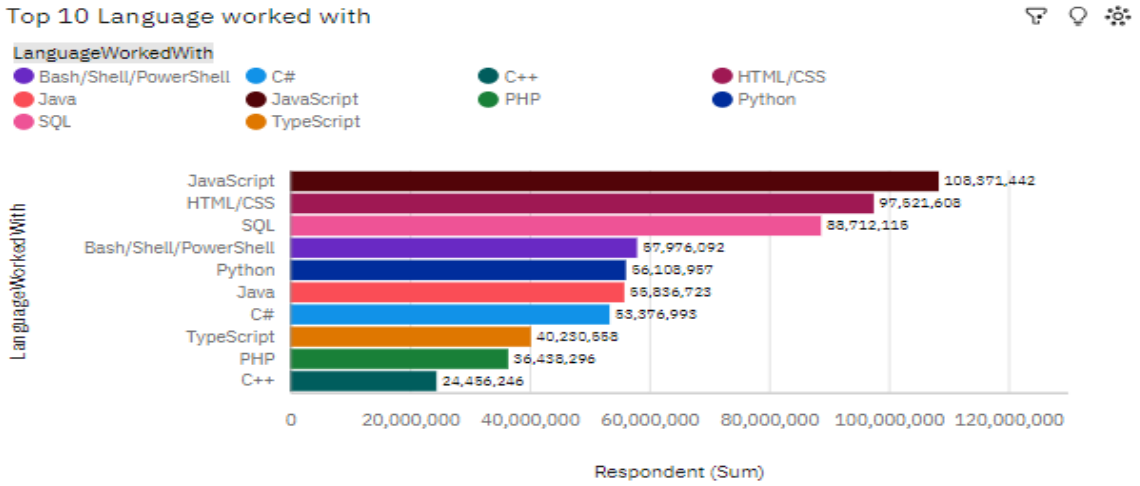
Implications

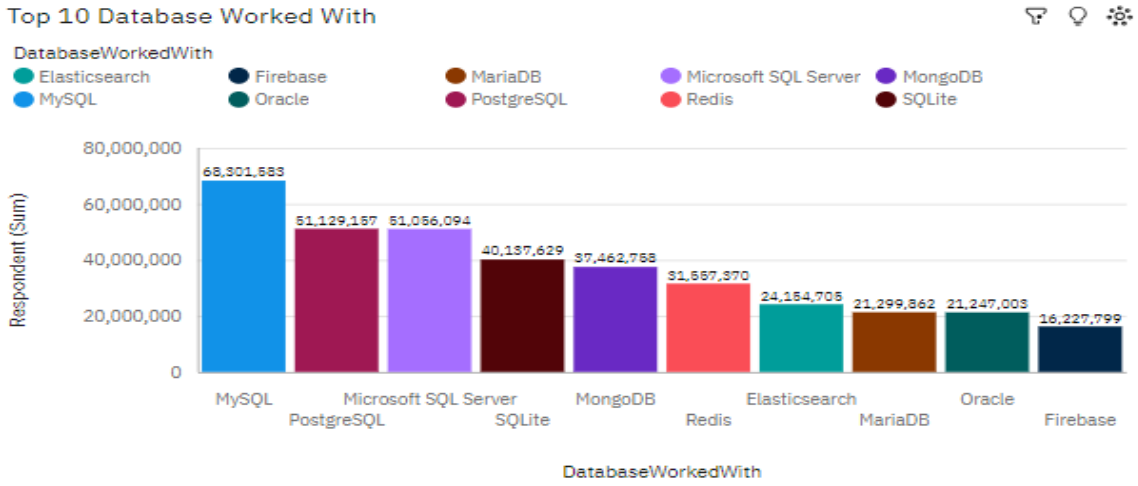
- MongoDB and Redis are upcoming trend databases
- PostegreSQL will be in high demand due to web development,app or ecommerce store
- Redis support abstract data types

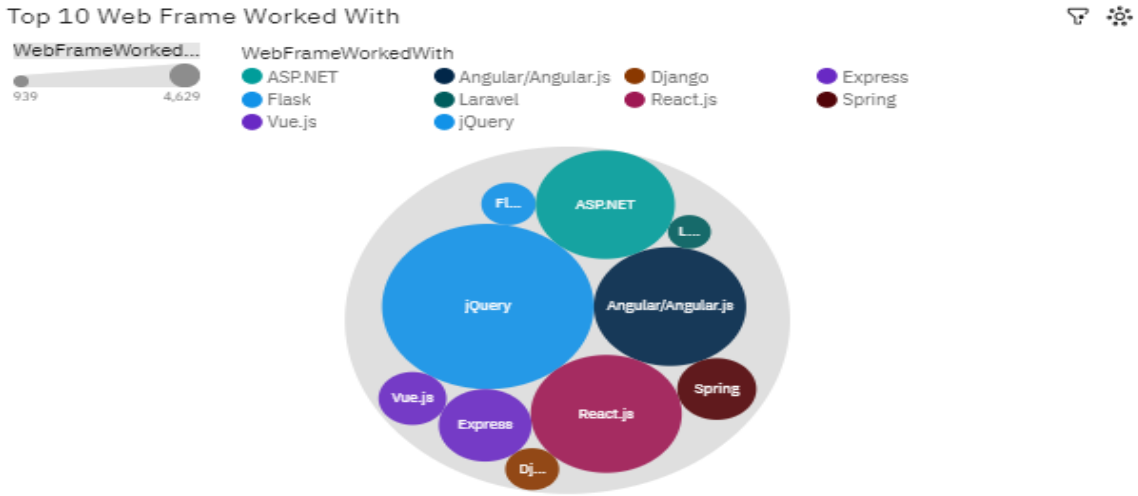
DASHBOARD

[IBM_Capstone/IBM Final Capstone Dashboard.pdf at main · Janani-Ironic69/IBM_Capstone (github.com)]

DASHBOARD TAB 1



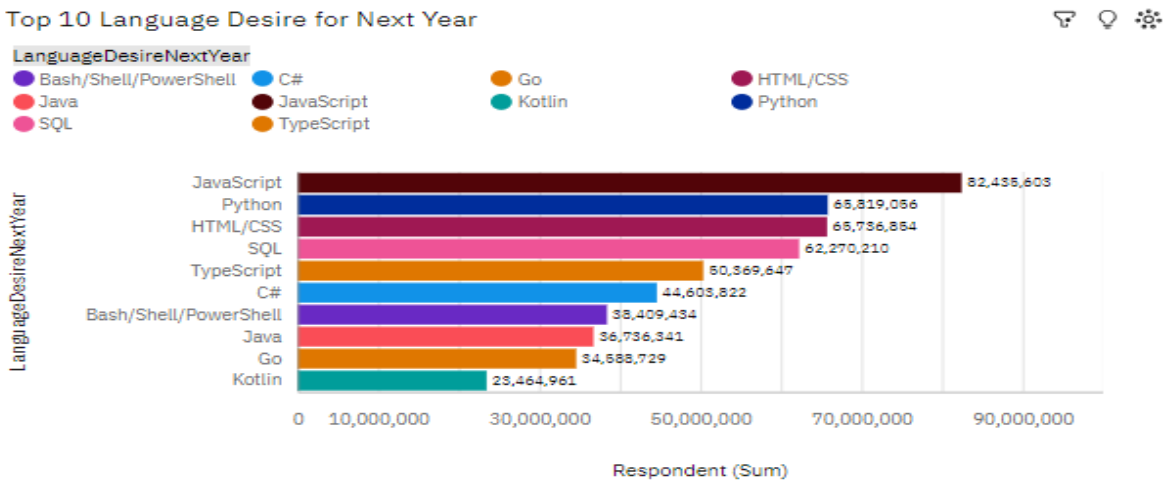


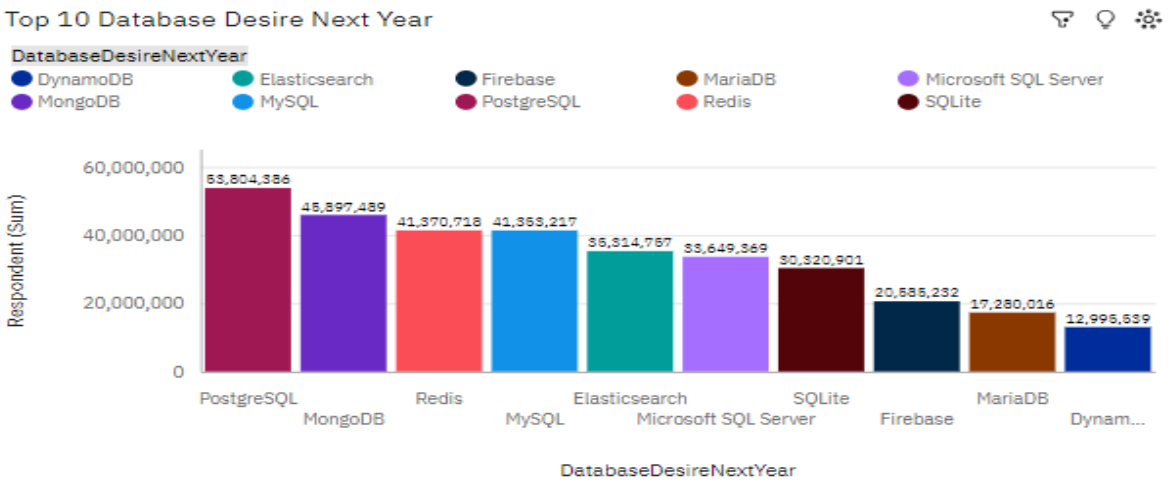


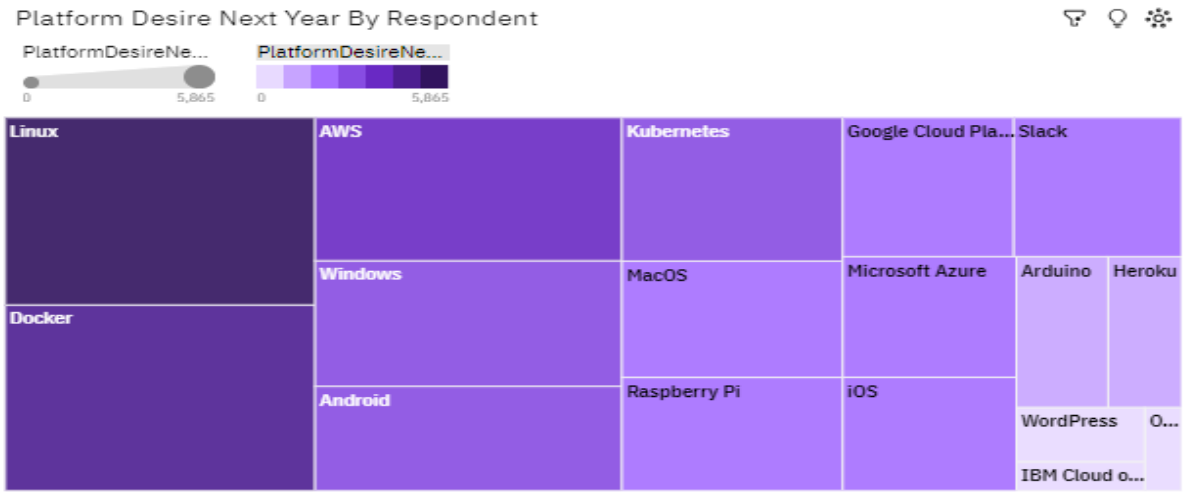
IBM Developer

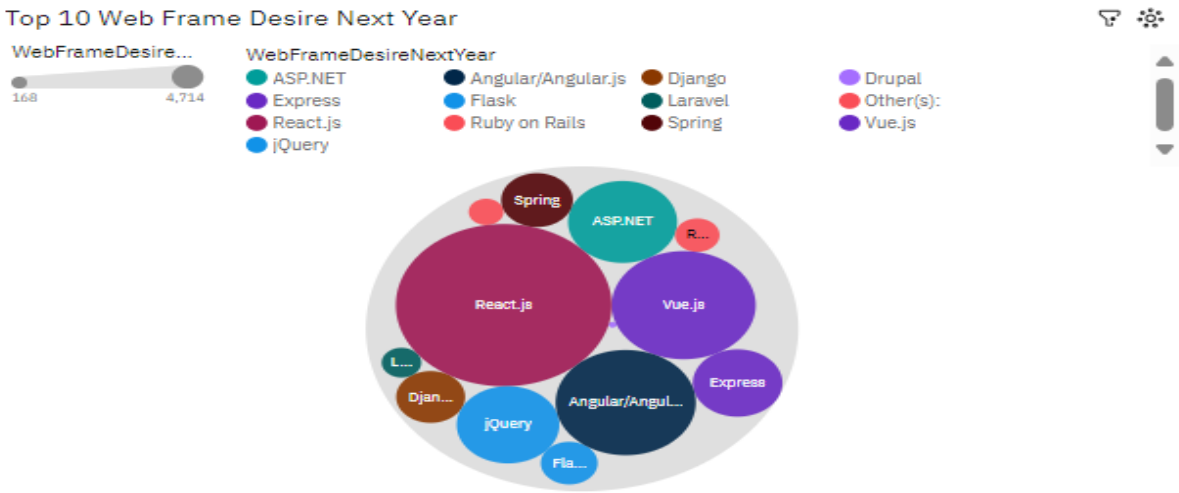
SKILLS NETWORK

DASHBOARD TAB 2







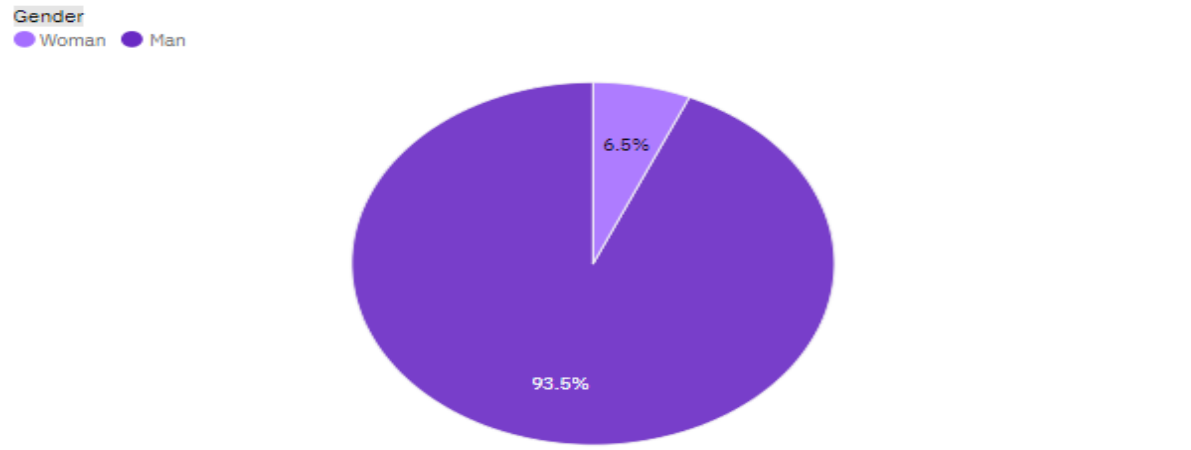


IBM Developer

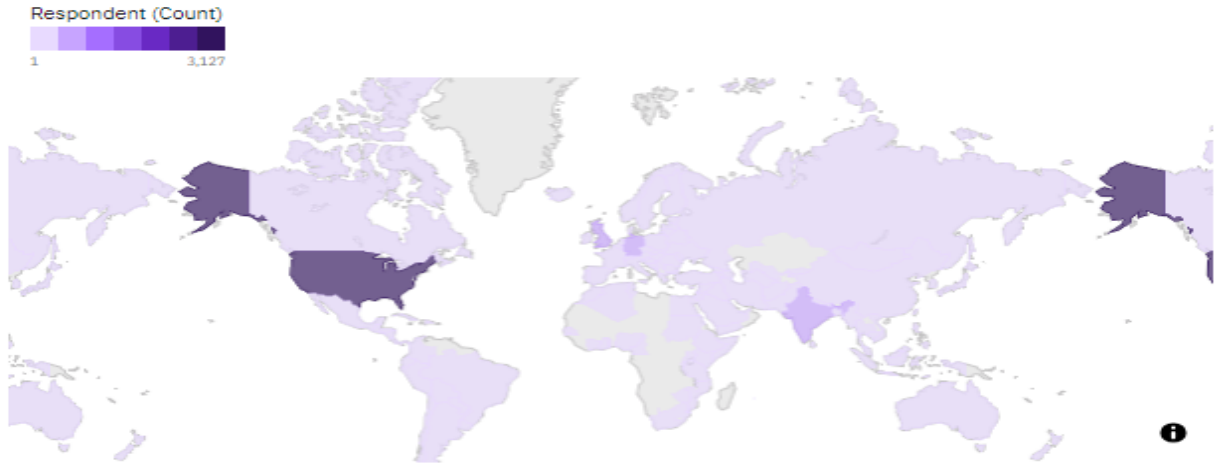
SKILLS NETWORK

DASHBOARD TAB 3

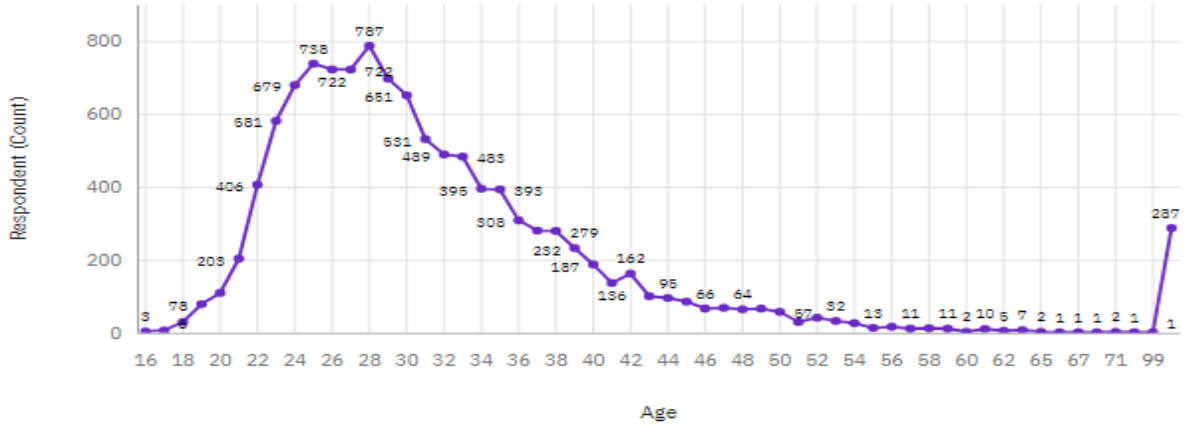
Respondent by Gender



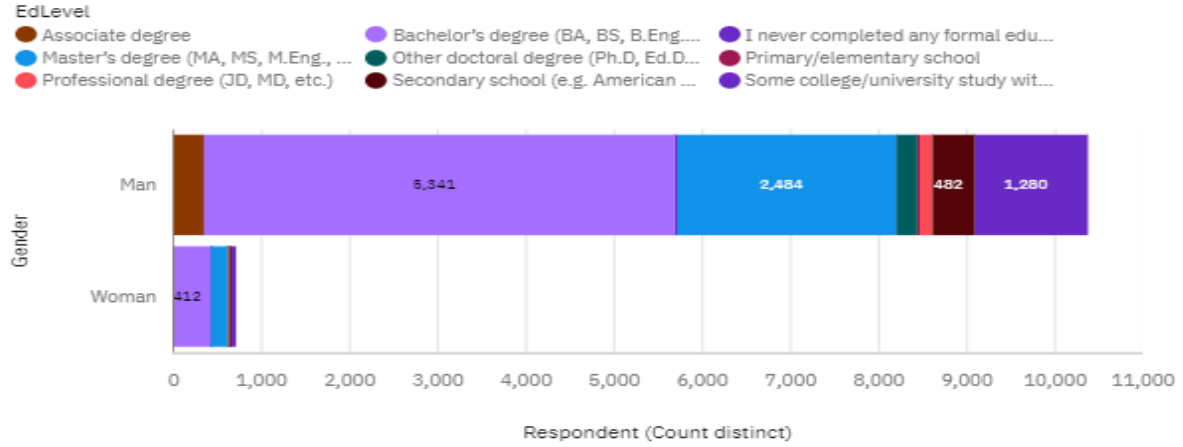
Respondent Count for Countries



Respondent by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION

- Technology is in trend now and future
- Female participation in Technology will be increased
- Technical Education will be prominent
- Eliminates Technology gap in countries
- Emerging technologies should be resource full to the society

OVERALL FINDINGS & IMPLICATIONS

Findings

- Trends and demands fluctuate based on new technology
- Web Development and AI ML are in trend
- Gender Gap is more in IT field
- Mysql is in demand due to its freely available
- Platforms like AWS and Docker are growing

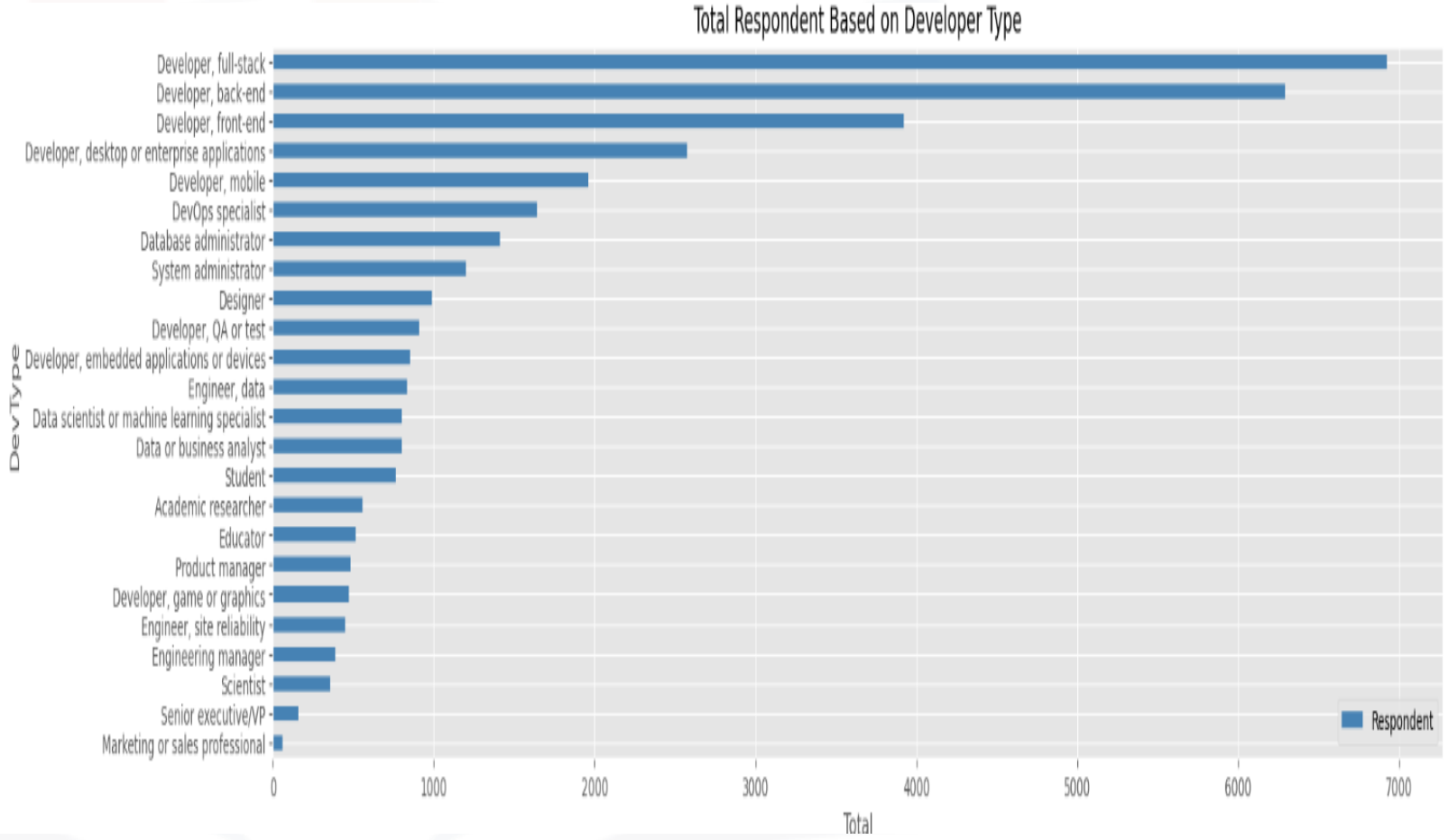
Implications

- IT companies need to adapt and accept the new changes in the society
- Having skills of current tranding technology will lead to good job opportunities
- Need to spread technology out to lagging countries
- Gender gap should to reduced

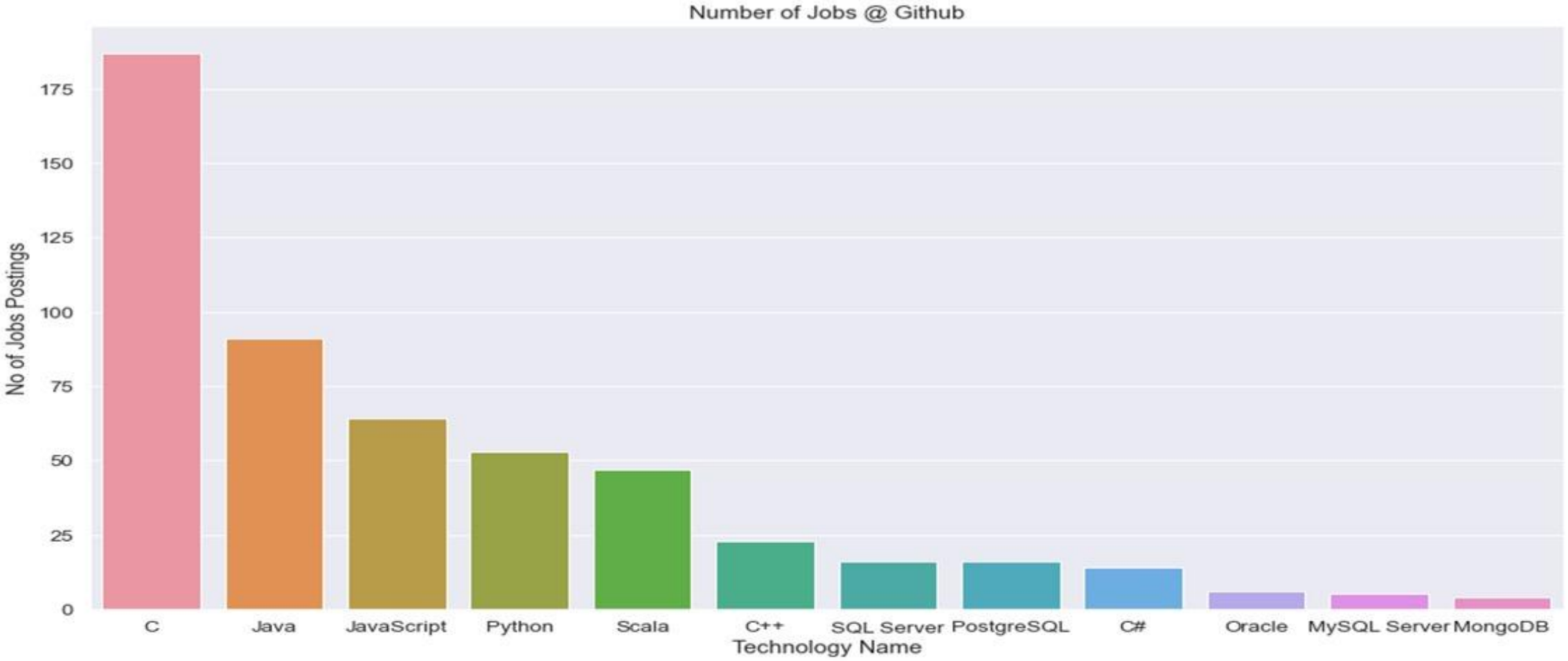
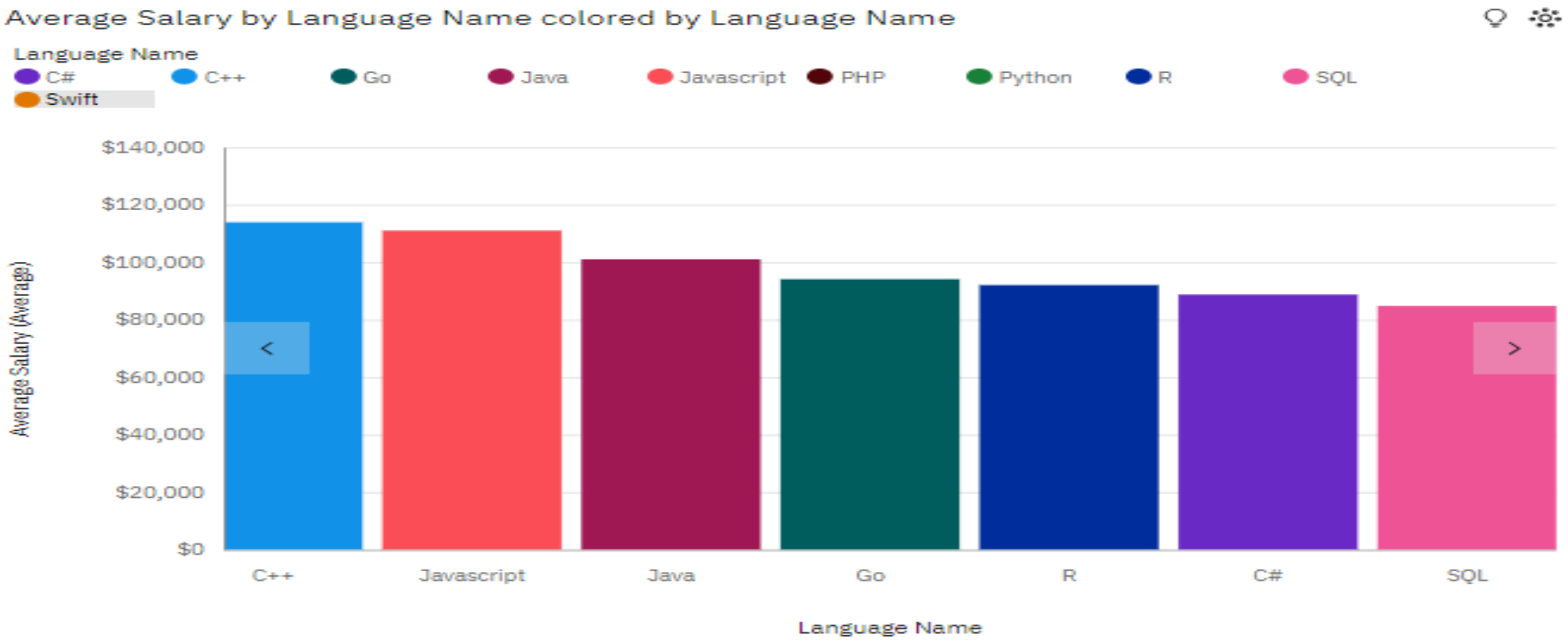
CONCLUSION

- Technology Trends and demand in current and next year
- Programming languages, databases, platforms and web frames overview
- Demographic overview
- Implication has to be done
- The IT industry needs to diversify

APPENDIX


Total Respondent Based on Developer Type
Developer, full-stack
Developer, back-end
Developer, front-end
Developer, desktop or enterprise applications
Developer, mobile
DevOps specialist
Database administrator
System administrator
Designer
Developer, QA or test
Developer, embedded applications or devices
Engineer, data
Data scientist or machine learning specialist
Data or business analyst
Student
Academic researcher
Educator
Product manager
Developer, game or graphics
Engineer, site reliability
Engineering manager
Scientist
Senior executive/VP
Marketing or sales professional
DevType
Respondent
0
1000
2000
3000
4000
5000
6000
7000
Total

JOB POSTINGS



POPULAR LANGUAGES