PROGRAMMING SKILLS TRENDING TECHNOLOGY

OLAOLU EMAMOKE

31ST JANUARY 2024

IBM Developer

SKILLS NETWORK

OUTLINE

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

IBM Developer
SKILLS NETWORK

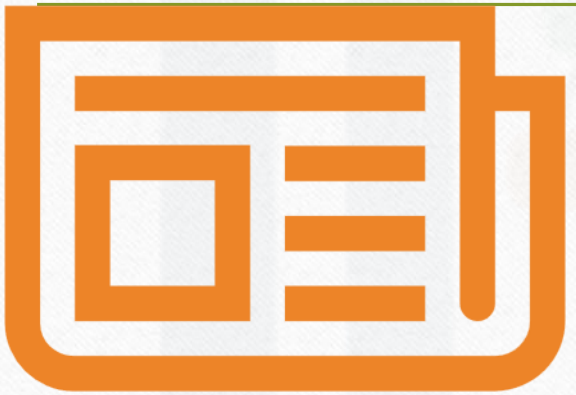
EXECUTIVE SUMMARY

- The programming trends in the IT industry and their locations of relevance
- Identifying and analysis the programing language trends in the industry today
  - The Top Industry programming language being Used
  - The Top Database
  - The Top Platforms currently being implemented
- Compiling of the Next Desired Programming Language at the Top Countries

INTRODUCTION

- The need to provide the required programing language work to tackle the growing need of the IT Industry
- Identifying and projecting the programming Language in-demand in presently and in the coming years to the Industry

METHODOLOGY

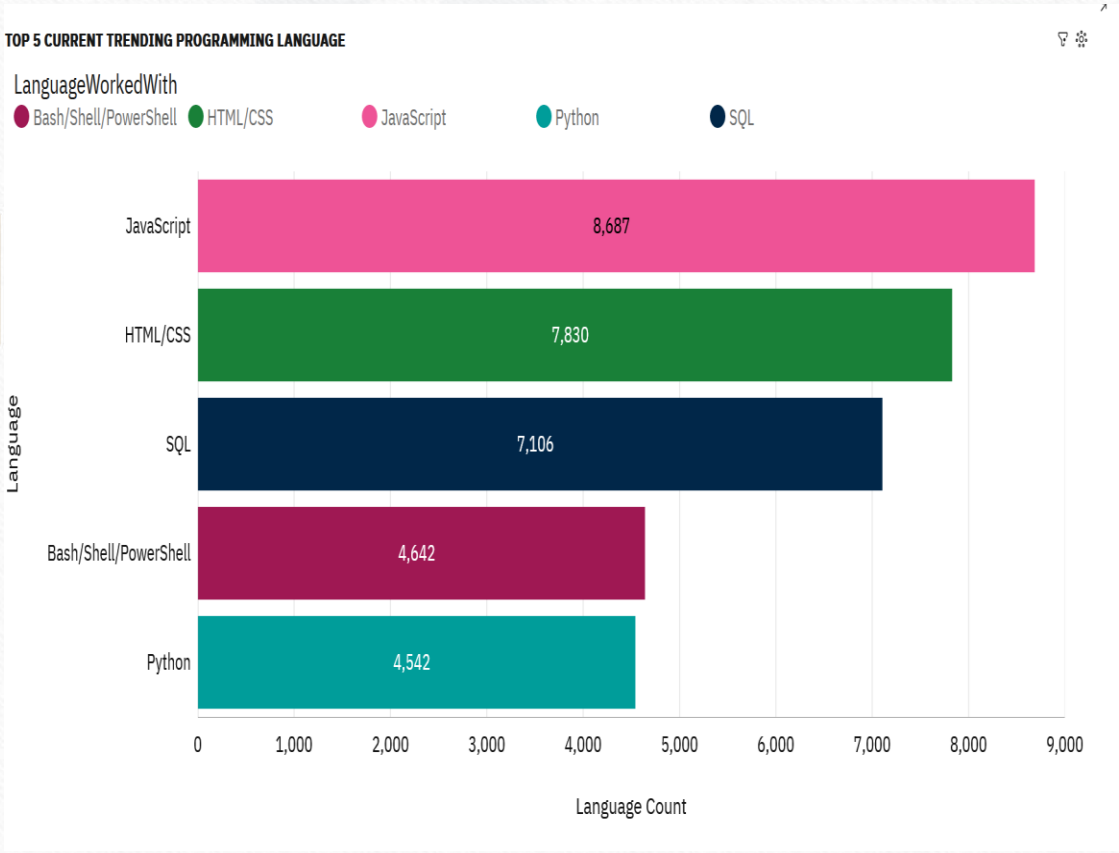


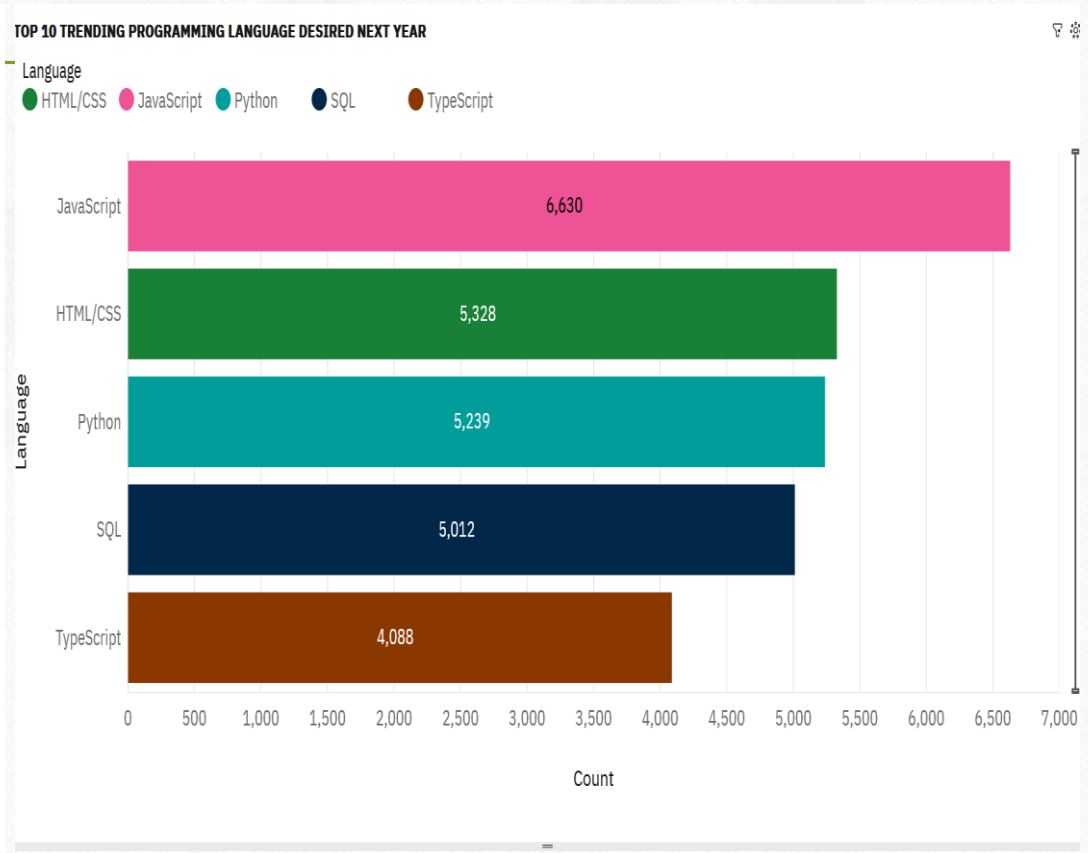
- Data Collection (API, Web Scraping)
- Data Exploring
- Data Wrangling
- Exploratory Data Analysis
- Data Visualization
- Dashboard Creation
- Presentation of Findings

RESULTS

With data collection along with cleaning and statistical techniques applied to the analysis of the data. The information where derived to create various information such as the trending current programs being used and the most desired technology for next year all ranked in the top 10 on the dashboard, also includes the databases where the programs are being applied to also ranked and presented on a dashboard.

PROGRAMMING LANGUAGE TRENDS





IBM Developer

SKILLS NETWORK

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

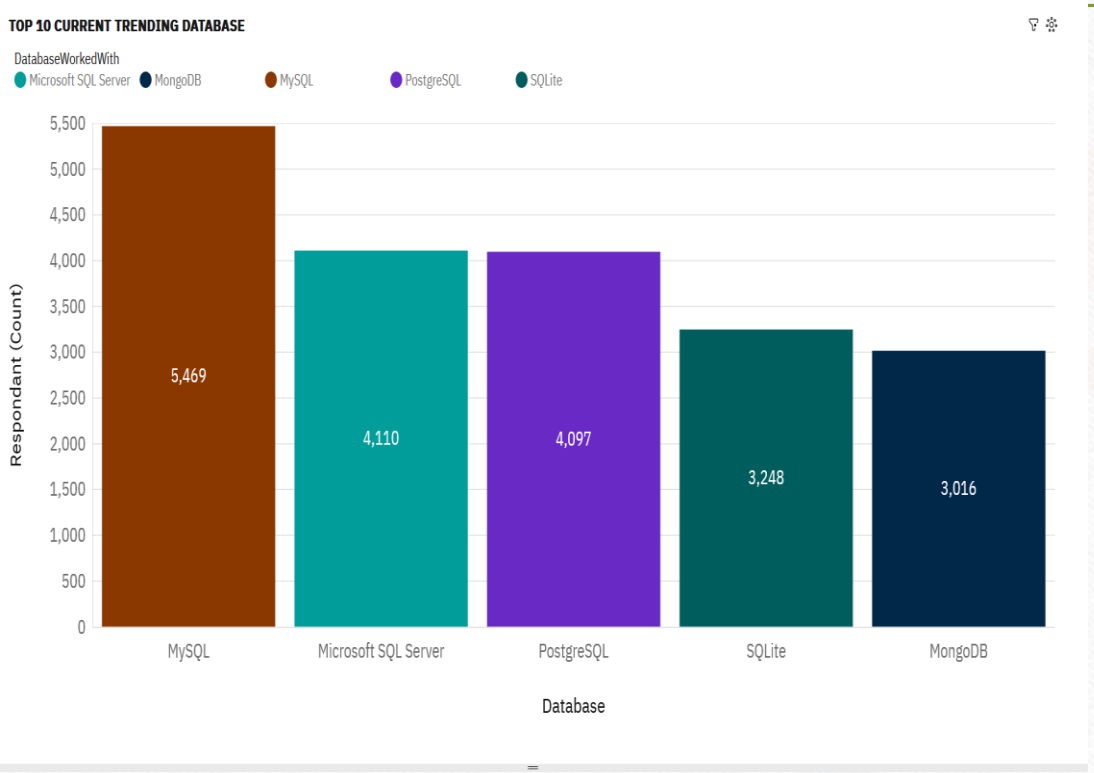
- JavaScript and HTML/CSS are still in-demand with 25% and 20%
- SQL Program Demand drops down to a 19% from 27%
- Python see a 20% increase for In-demand program desired next year
- TypeScript enters the Top 5 for in-demand program desired next year.

Implications

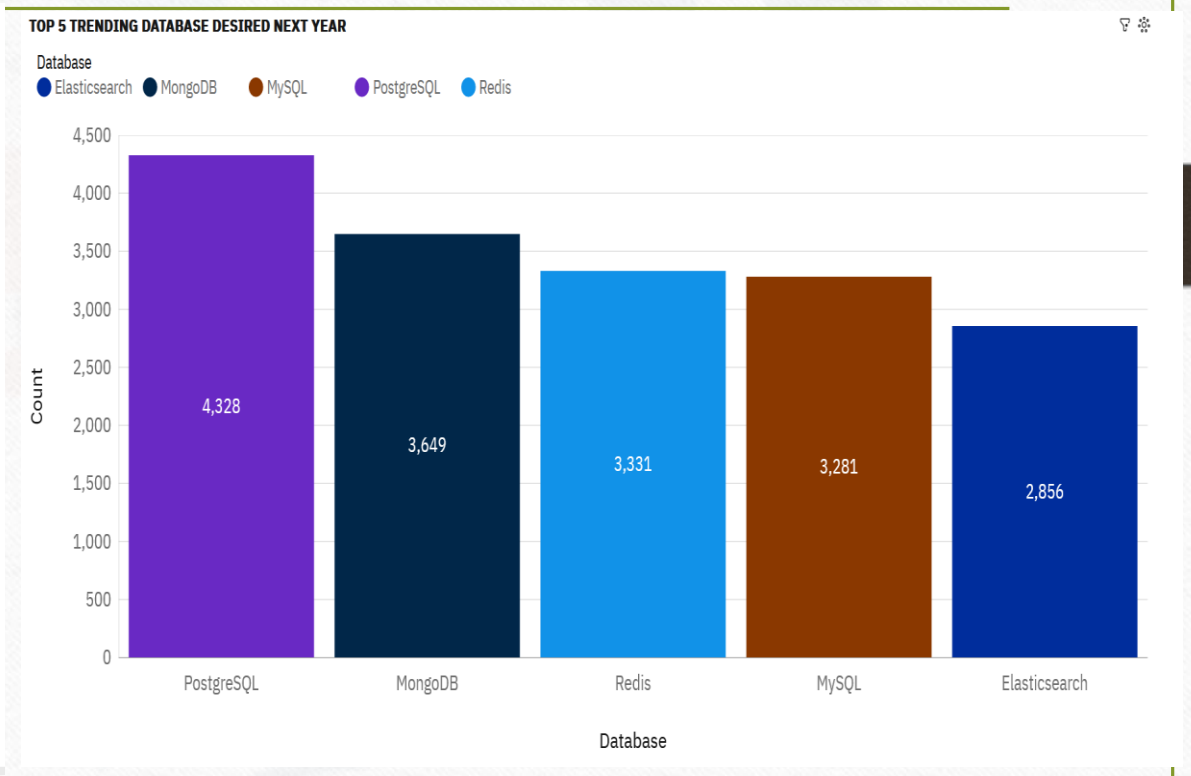
- JavaScript and HTML/CSS are both involved in the current and future trends of programs
- Python see an increase in popularity with Bash/Shell/PowerShell dropping out of the top 5.

DATABASE TRENDS

Current Year



Next Year



IBM Developer

SKILLS NETWORK

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

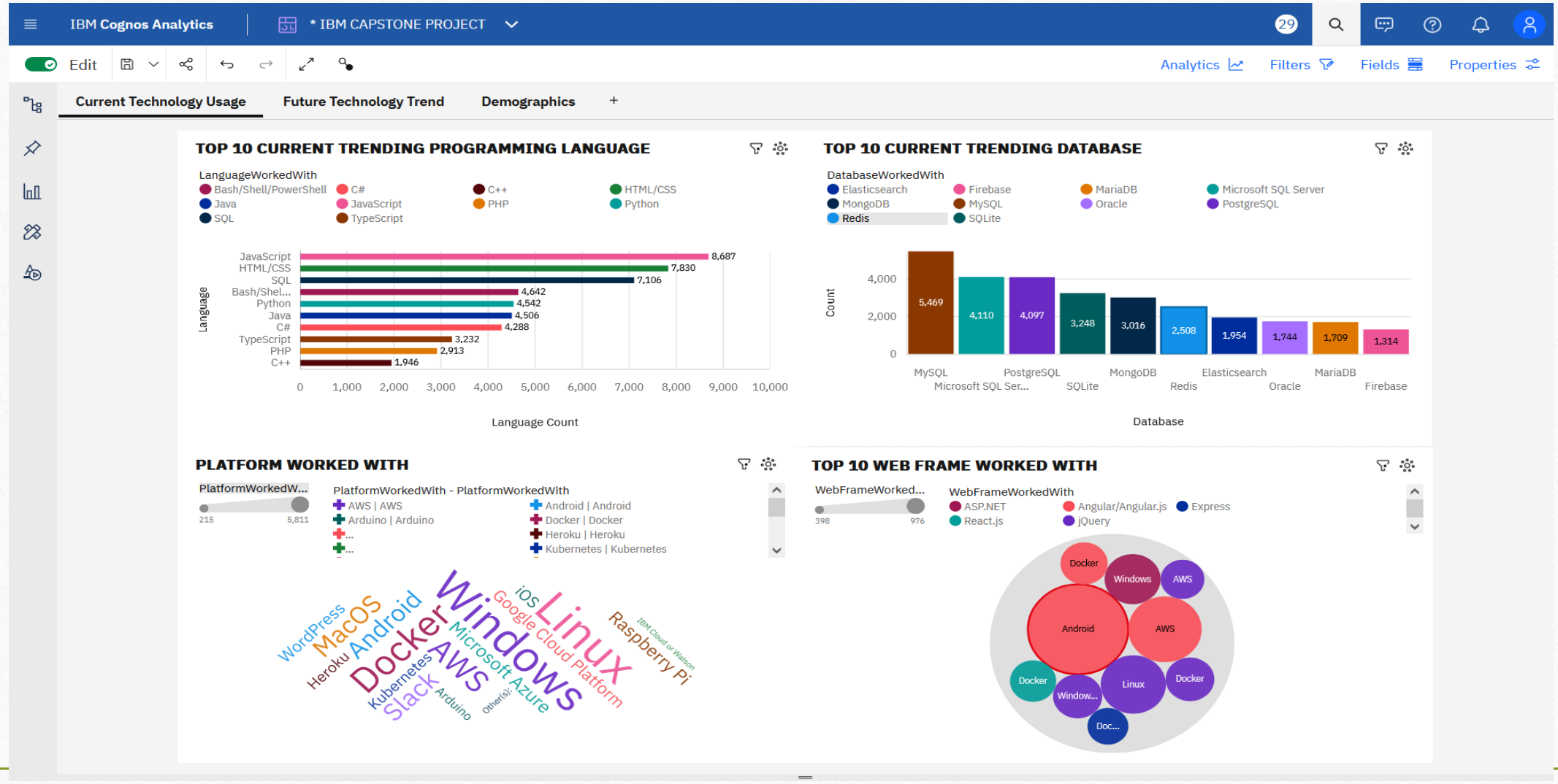
- The current year databases see MySQL, Microsoft SQLServer and PostgreSQL as the TOP 3 database.
- With both Microsoft SQLServer and SQLite potentially dropping out the top 5 in Database for Next Year.

Implications

- PostgreSQL and MongoMB could see an upward trend as the most used Database for next year
- With Redis and Elasticsearch replacing Microsoft SQLServer and SQLite in the Top5 next year.
- MySQL might see a drop in usage as well.

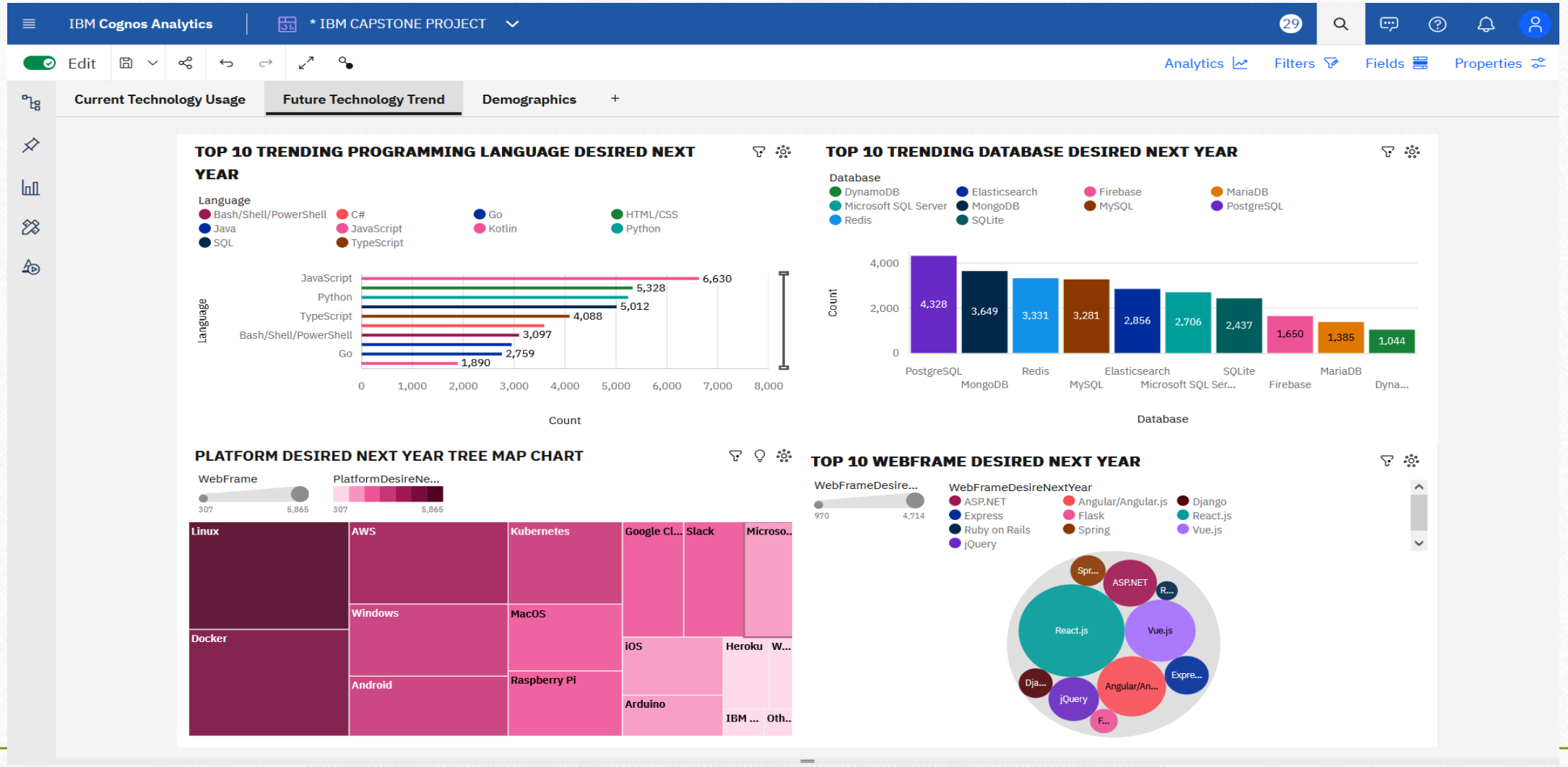
DASHBOARD

<https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FIBM%2BCAPSTONE%2BPROJECT&action=view&mode=dashboard&subView=model0000018d63dc9362_00000001>



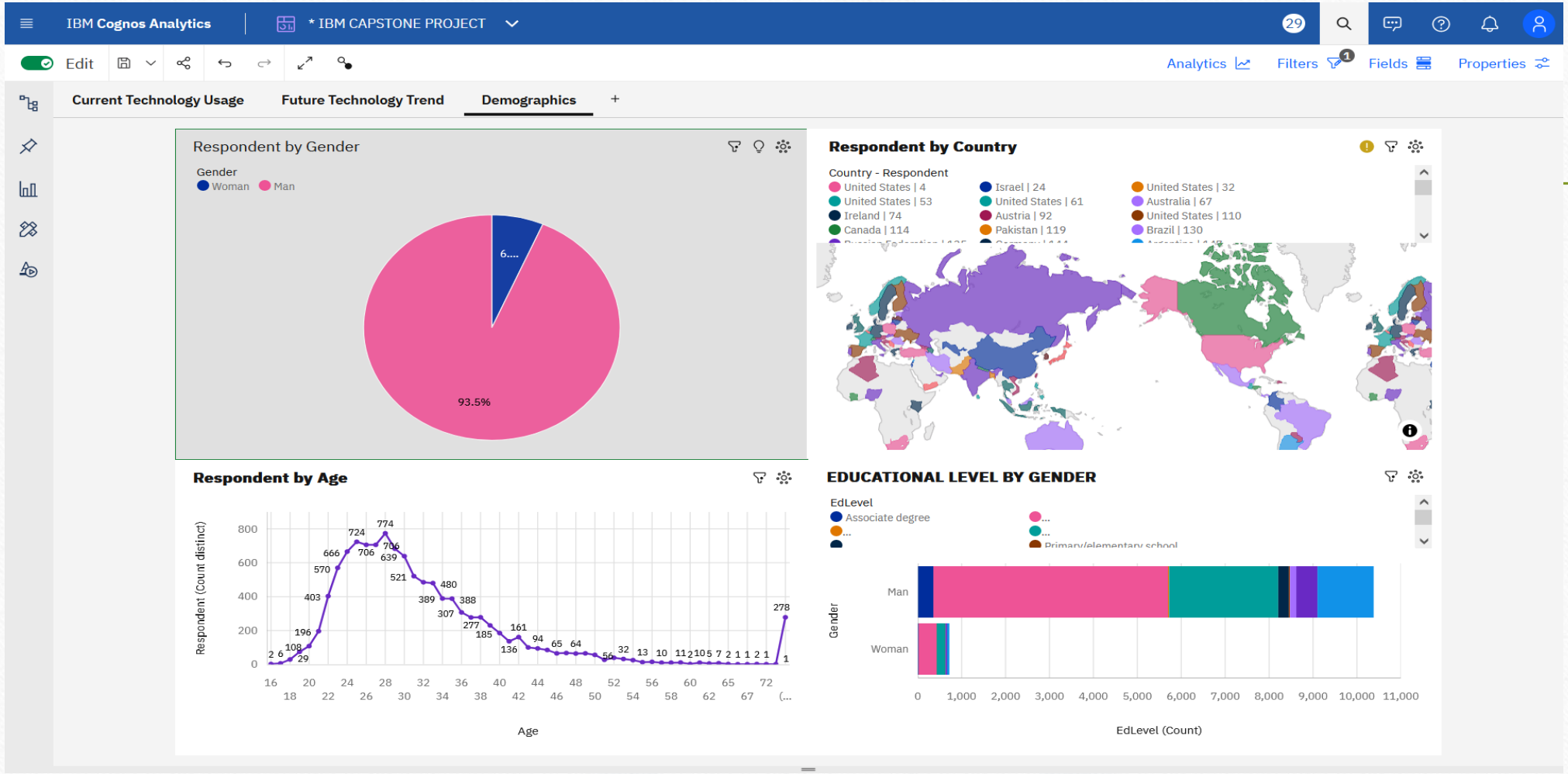
IBM Developer

SKILLS NETWORK



IBM Developer

SKILLS NETWORK



IBM Developer
SKILLS NETWORK

DISCUSSION

- It noticed the IT Sector is quite attractive for the Male Gender with 93.5% respondent.
- United State of Amercia see the most amount of IT profeesionals
- The Programming Language on an Upward trend is Python with JavaScript and HTML/CSS to continue being used.

OVERALL FINDINGS & IMPLICATIONS

Findings

- The current year databases see MySQL, Microsoft SQLServer and PostgreSQL as the TOP 3 database.
- With both Microsoft SQLServer and SQLite potentially dropping out the top 5 in Database for Next Year.
- Men are quite involved in the Tech space
- Africa Countries are quite few compared to their counterparts
- Python see a 20% increase for In-demand program desired next year
- TypeScript enters the Top 5 for in-demand program desired next year.

Implications

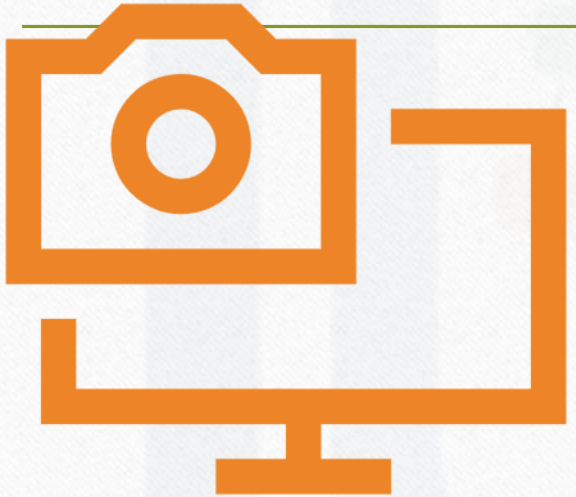
- Python would see a sharp rise of in-demand programming language
- PostgreSQL is also increase in popularity on the database to be used
- Women Invovlement should be looked at on how to enter the labour market
- African countries involvement is very limited

CONCLUSION

- HTML/CSS and JavaScript are the most popular and most in-demand programming language
- PostgreSQL looks to be the most in-demand database in the future
- African Countries are looking to enter the IT-Space but would need future data
- Linux and Docker are the most used Platforms
- Men are more involved in the IT-Sector

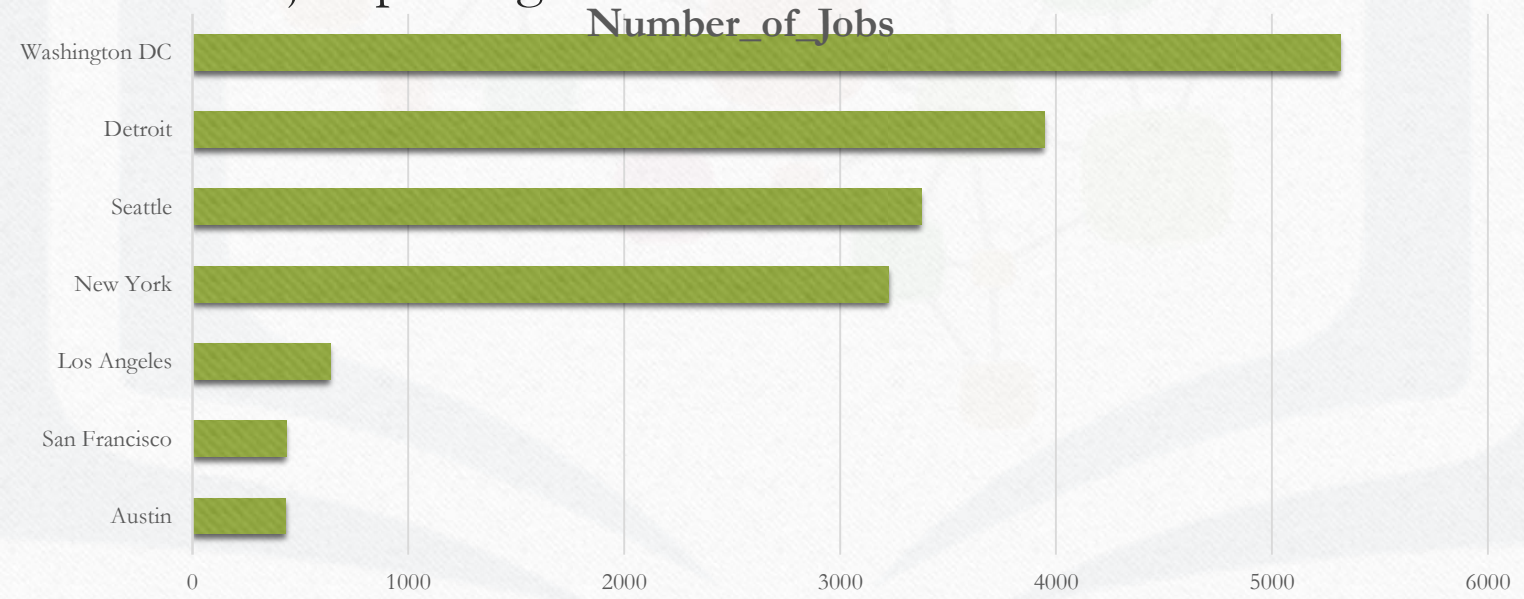
APPENDIX

- Include any relevant additional charts, or tables that you may have created during the analysis phase.



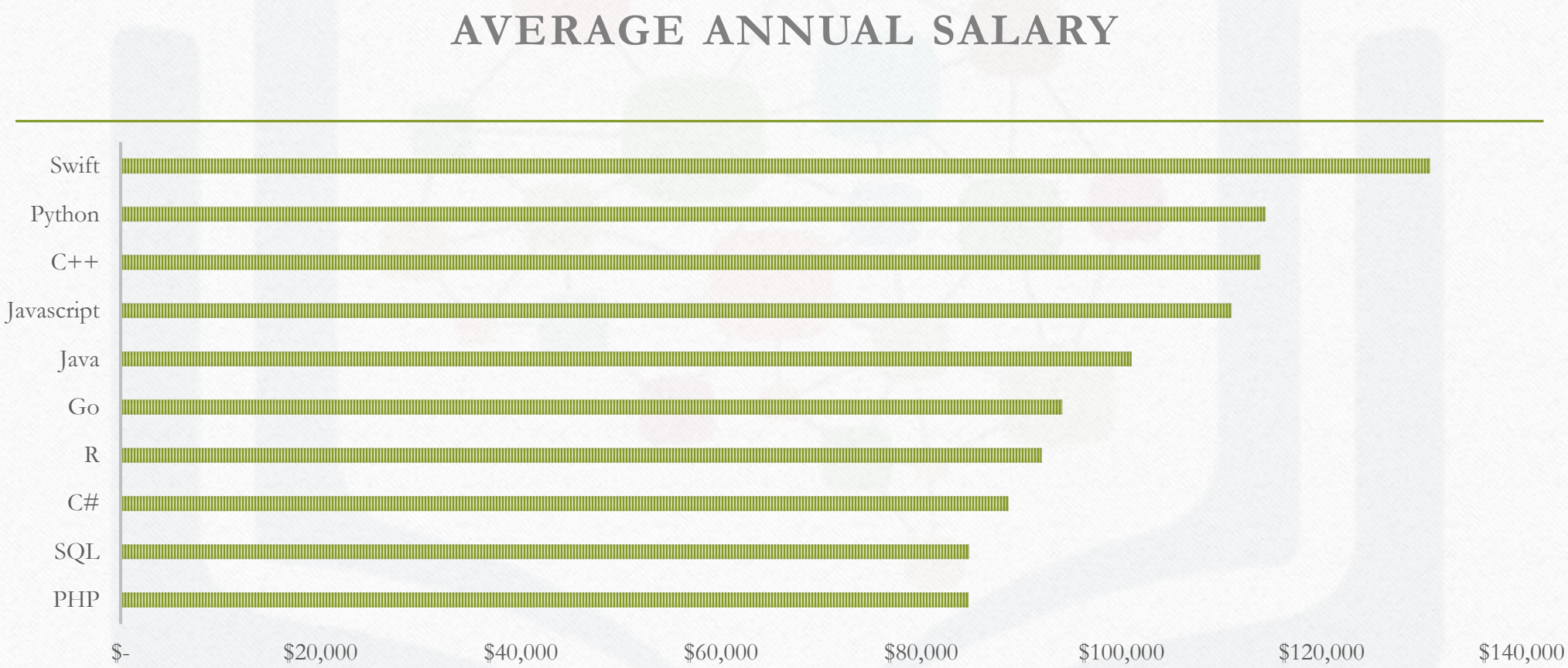
JOB POSTINGS

In Module 1 you have collected the job posting data using Job API in a file named "job-postings.xlsx". Present that data using a bar chart here. Order the bar chart in the descending order of the number of job postings.



IBM Developer
SKILLS NETWORK

POPULAR LANGUAGES



IBM Developer
SKILLS NETWORK