Technology trends and analysis presentation

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OUTLINE

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

- Trends in programming languages and databases.
- Demographic survey
- Gender gap in jobs
- Technological gap in countries

INTRODUCTION

About :

Analyzing the trends in software development.

Purpose:

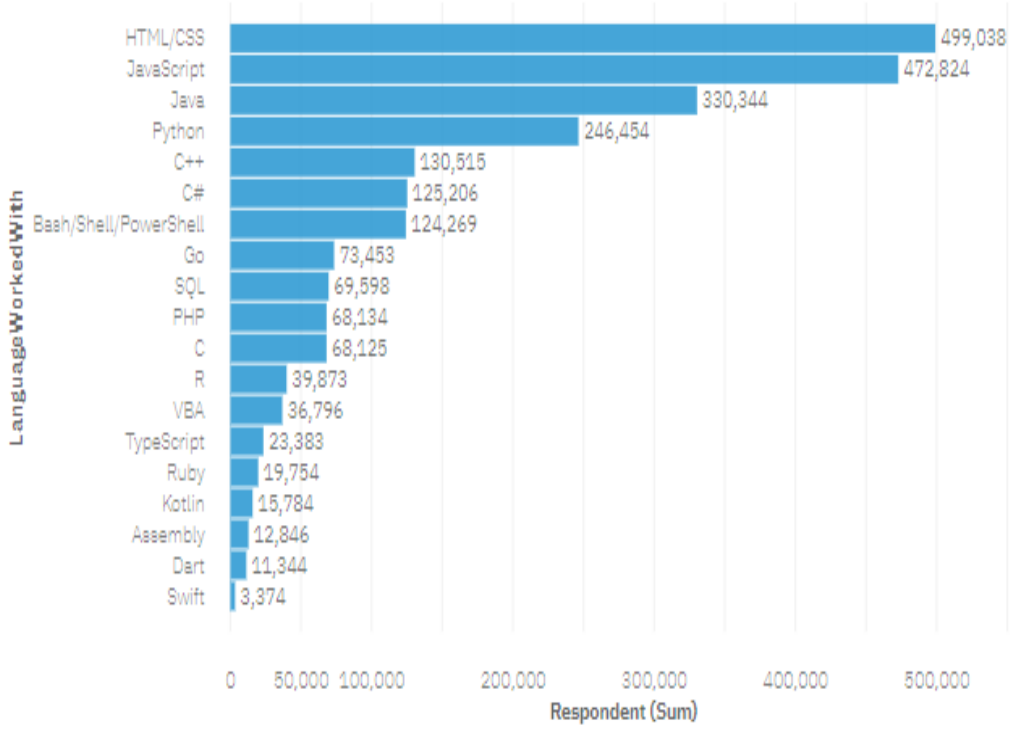
- Identifying skill requirements for future.
- What are the top programming languages in demand ?
- What are the top database skills in demand ?
- What are the popular IDE's ?

METHODOLOGY

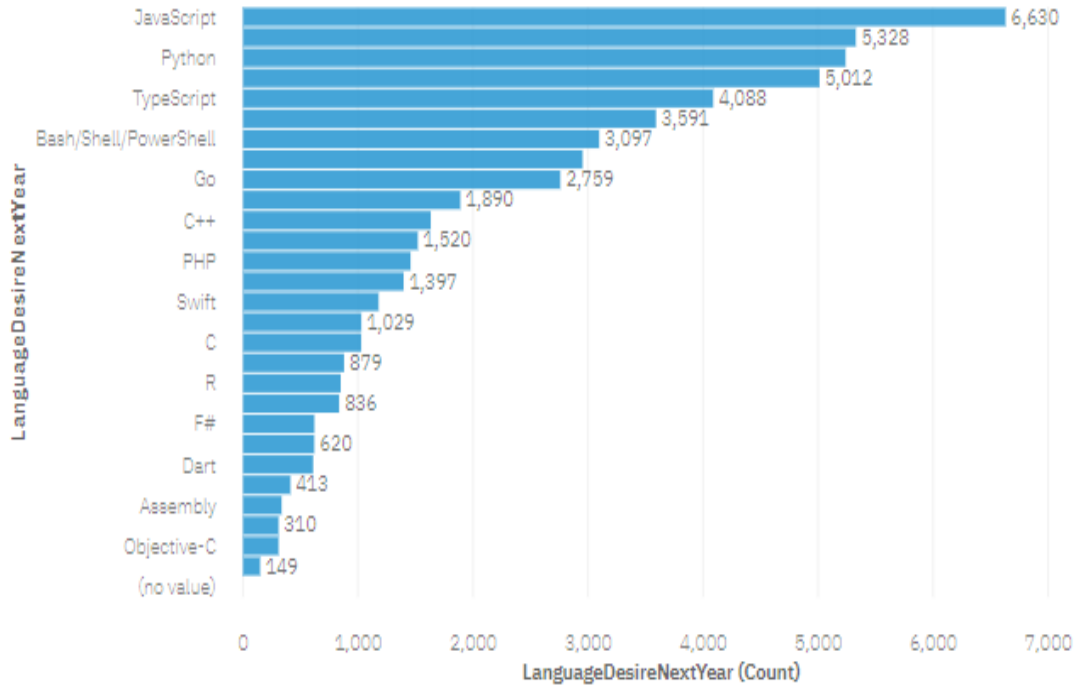
- Data collection sources
  1. Git hub job postings
  2. Stack overflow developer 2019 survey
  3. Programming languages annual salary
- Data Exploration
- Data Cleaning
- Data Visualization
- Presentation

PROGRAMMING LANGUAGE TRENDS

Languages worked current year



Languages desired next year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

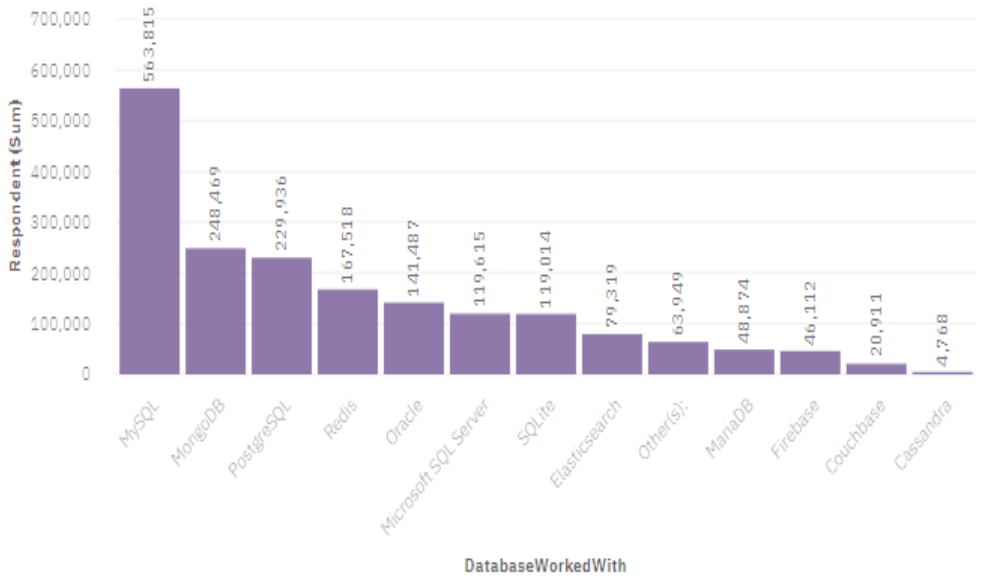
- HTML/CSS, Java script, Java are in top 3 positions this year.
- Python and typescript are becoming popular next year.
- Power shell edged out in next year.

Implications

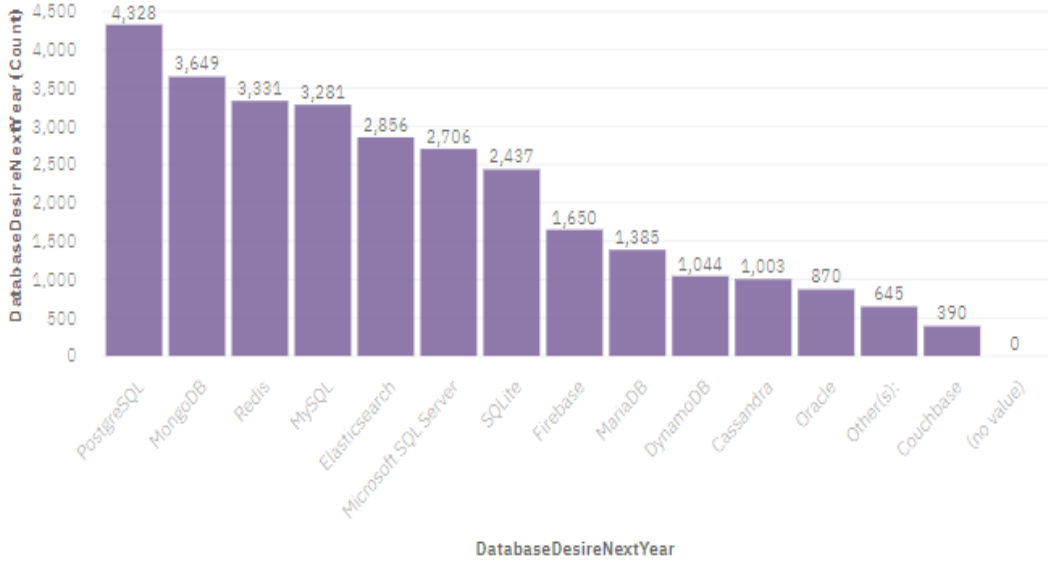
- Web development languages are still in high demand.
- Big data technologies requires SQL.
- With AI and ML in rising demand, python is the best choice.

DATABASE TRENDS

Top databases worked with



Top databases desired next year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- My SQL is most popular.
- Behind is MongoDB.
- PostgreSQL and Redis are upcoming favorites.
- New kid in the block: Cassandra

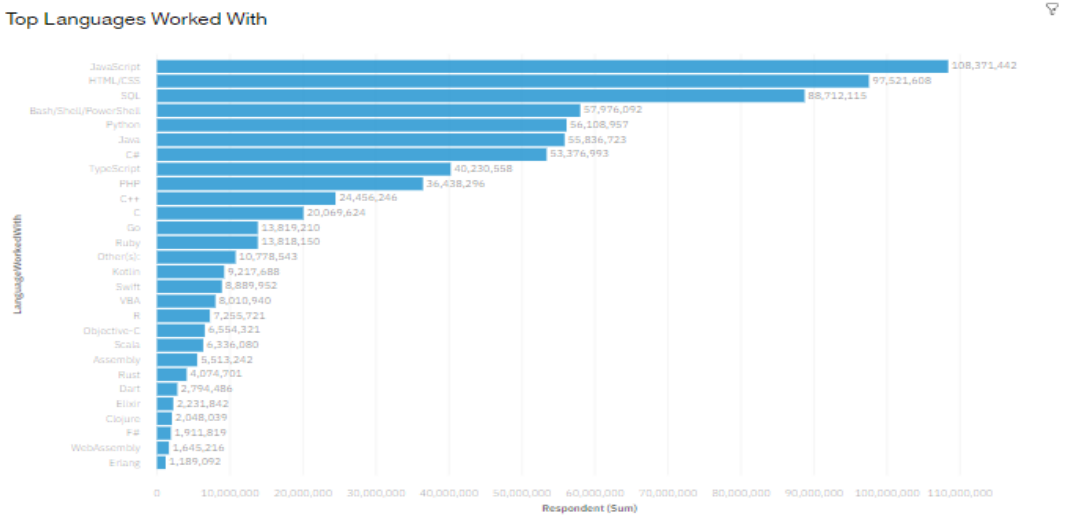
Implications

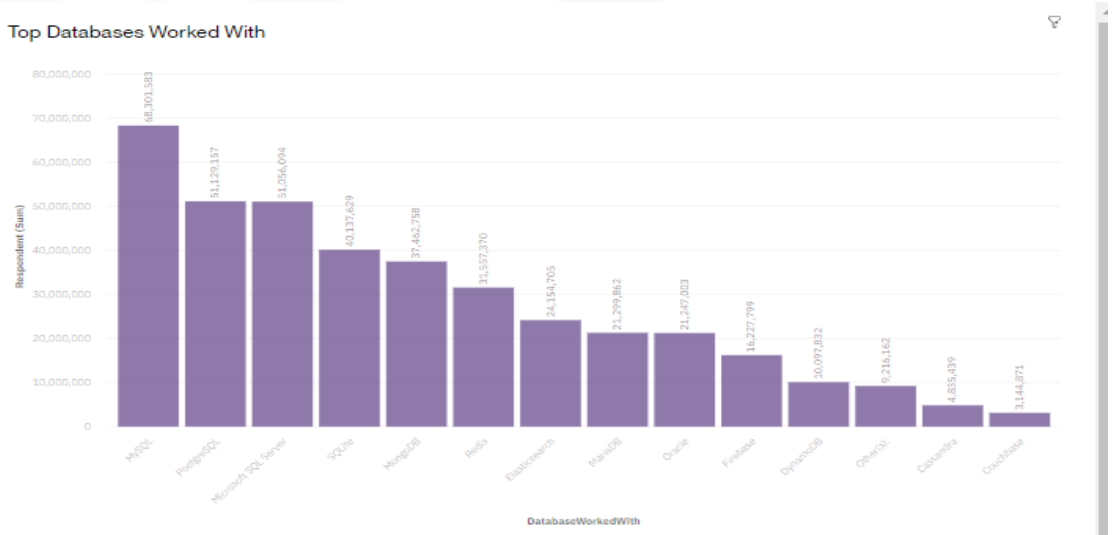
- Open source databases are still preferable in companies.
- NoSQL data will make an impact for storing non- relational data.
- Supports abstract data types.
- Pre tunes search to website, app or ecommerce store.

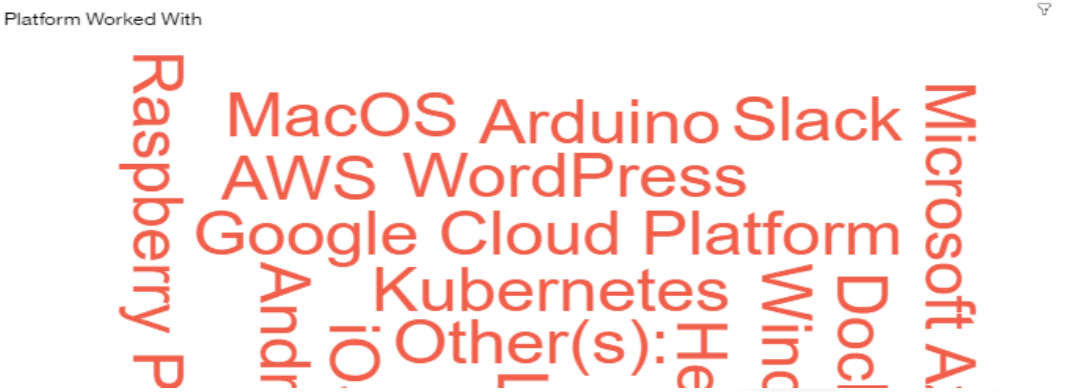
DASHBOARD

https://dataplatform.cloud.ibm.com/dashboards/29d9f845-2b0a-42e4-ae0d-18e88c88ef7d/view/0664dd2213e26dce12b4bde4079d28577f37205bb5bb865582837b495c617697a9601699c82b4959da400661f5e8125aca

DASHBOARD TAB 1







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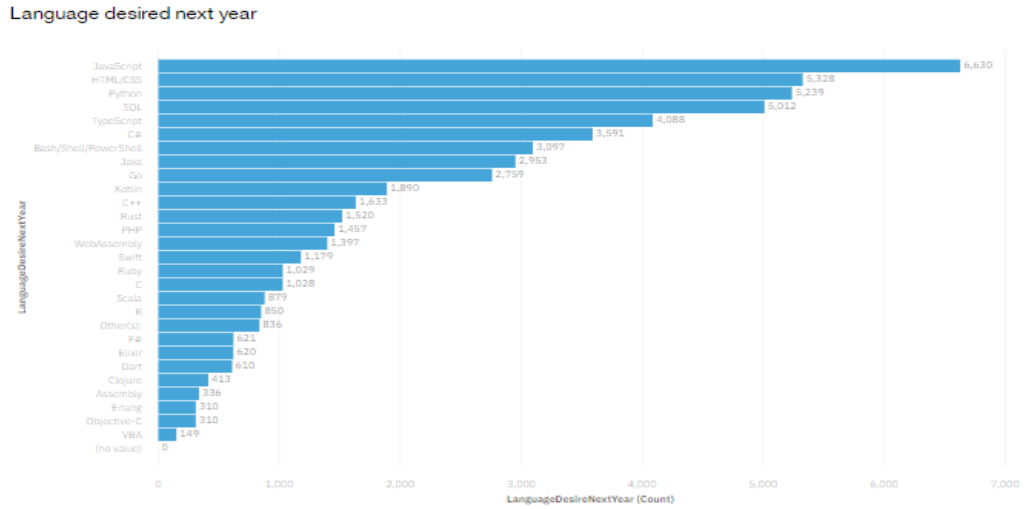

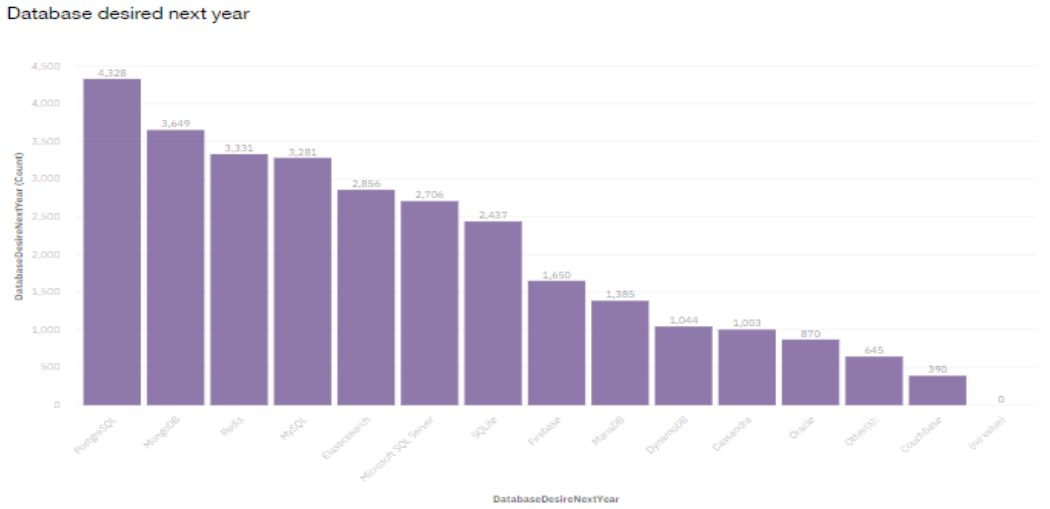

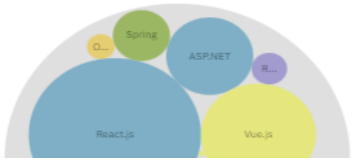

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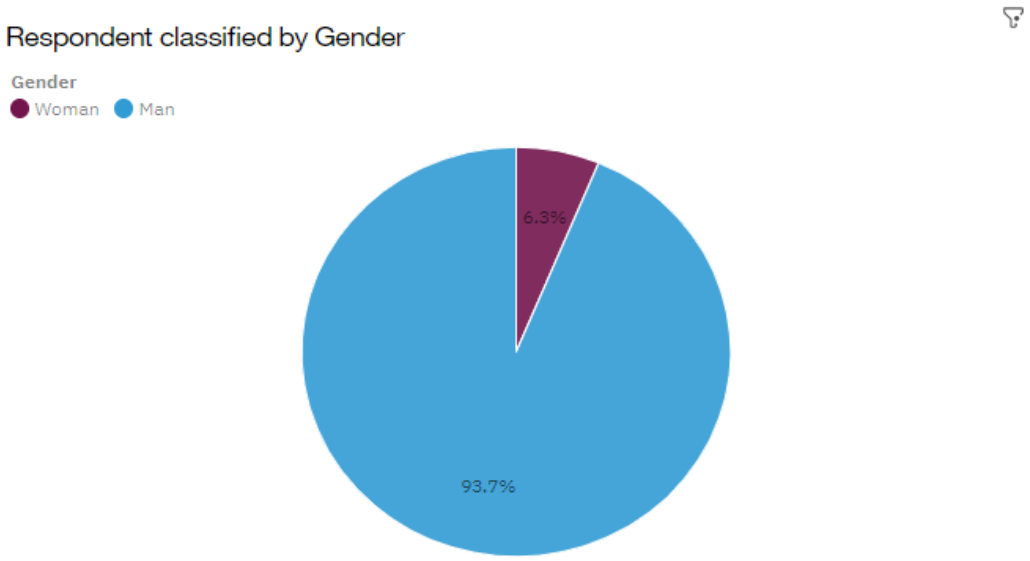
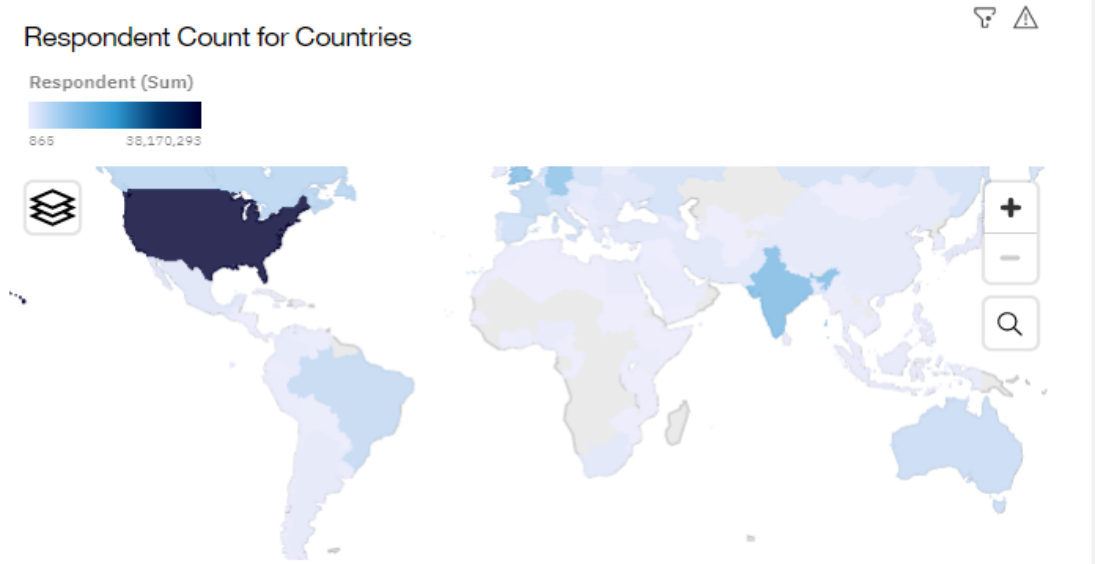
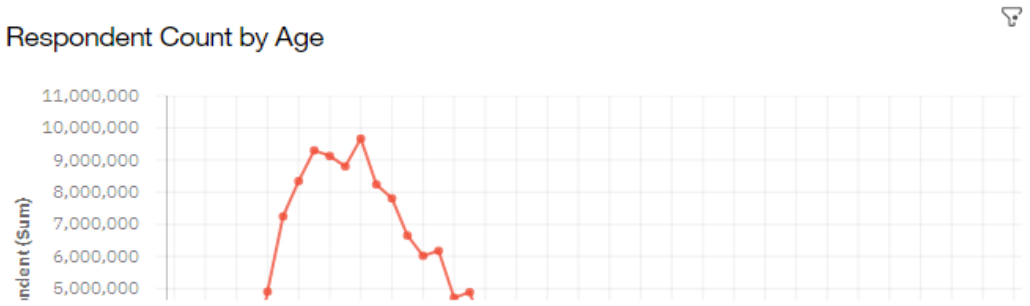
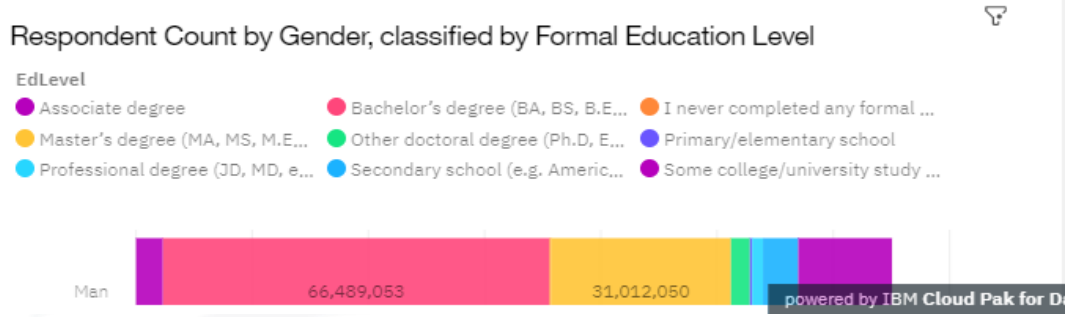








DISCUSSION

- Technology trends now and future.
- Training and reskilling workers.
- Female participation in technology field.
- Bridging technology gaps in developing countries.
- Eliminate age and education discrimination in employment.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Fast changing technology every year.
- Concentration on countries like USA and India.
- Gender gap in technology jobs.
- Platforms like Docker and AWS are growing.

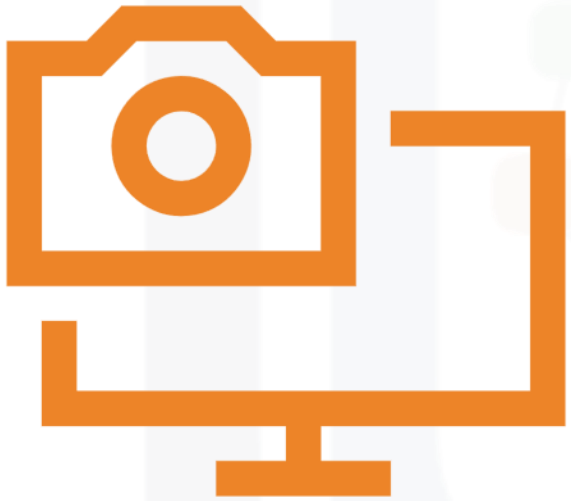
Implications

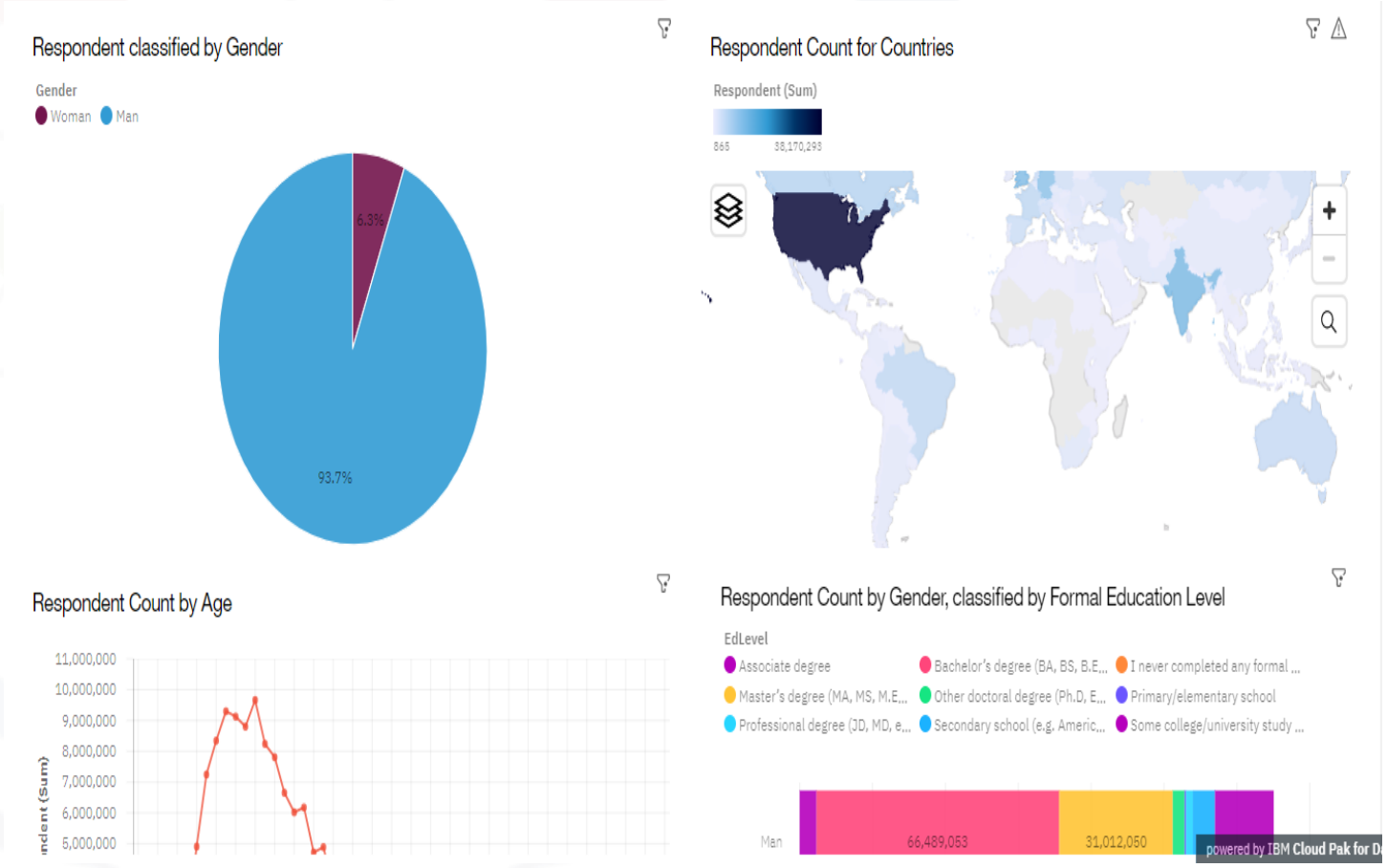
- Companies need to be flexible and adjust to rapid changes.
- Need to spread technology out to lagging countries.
- Impact of job hiring's.
- Shift to faster app deployments and cloud services in future.

CONCLUSION

- Technology trends for current year and next year.
- Programming languages, database and platform overview.
- Demographics overview.
- Actions to be taken.
- Incorporate Machine Learning to predict trends and salaries.

APPENDIX

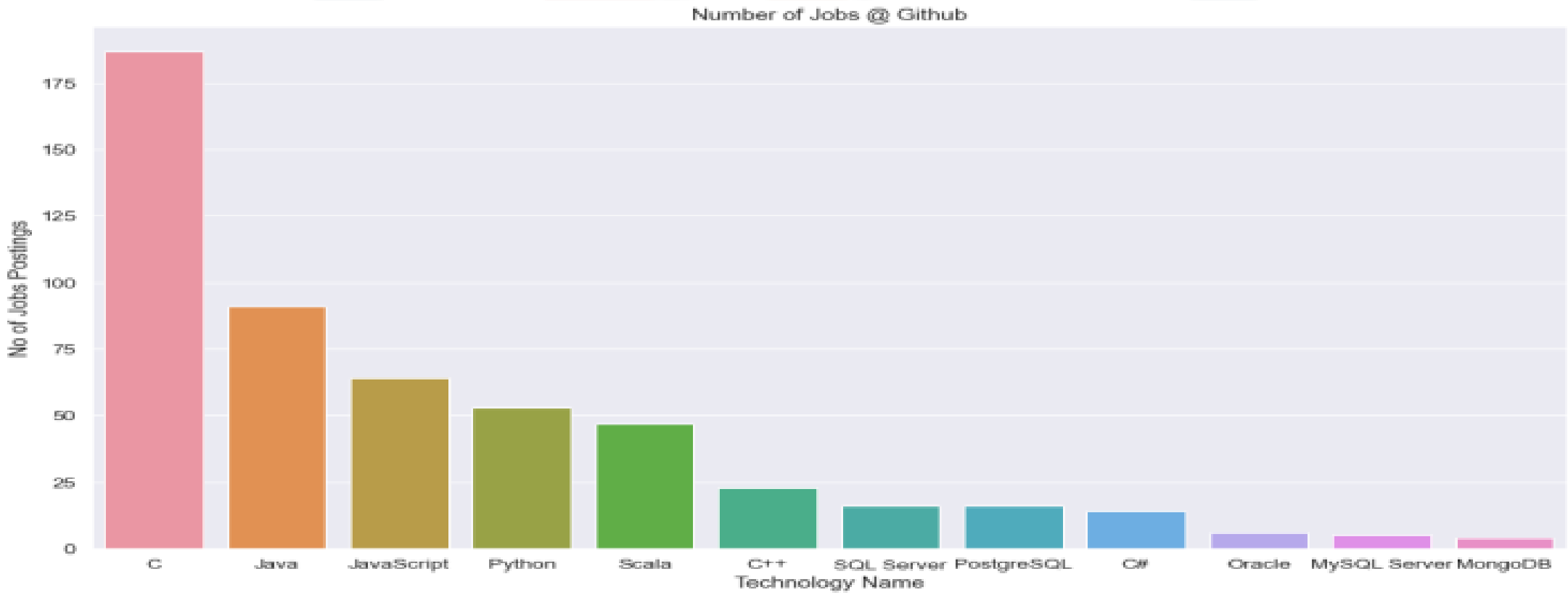
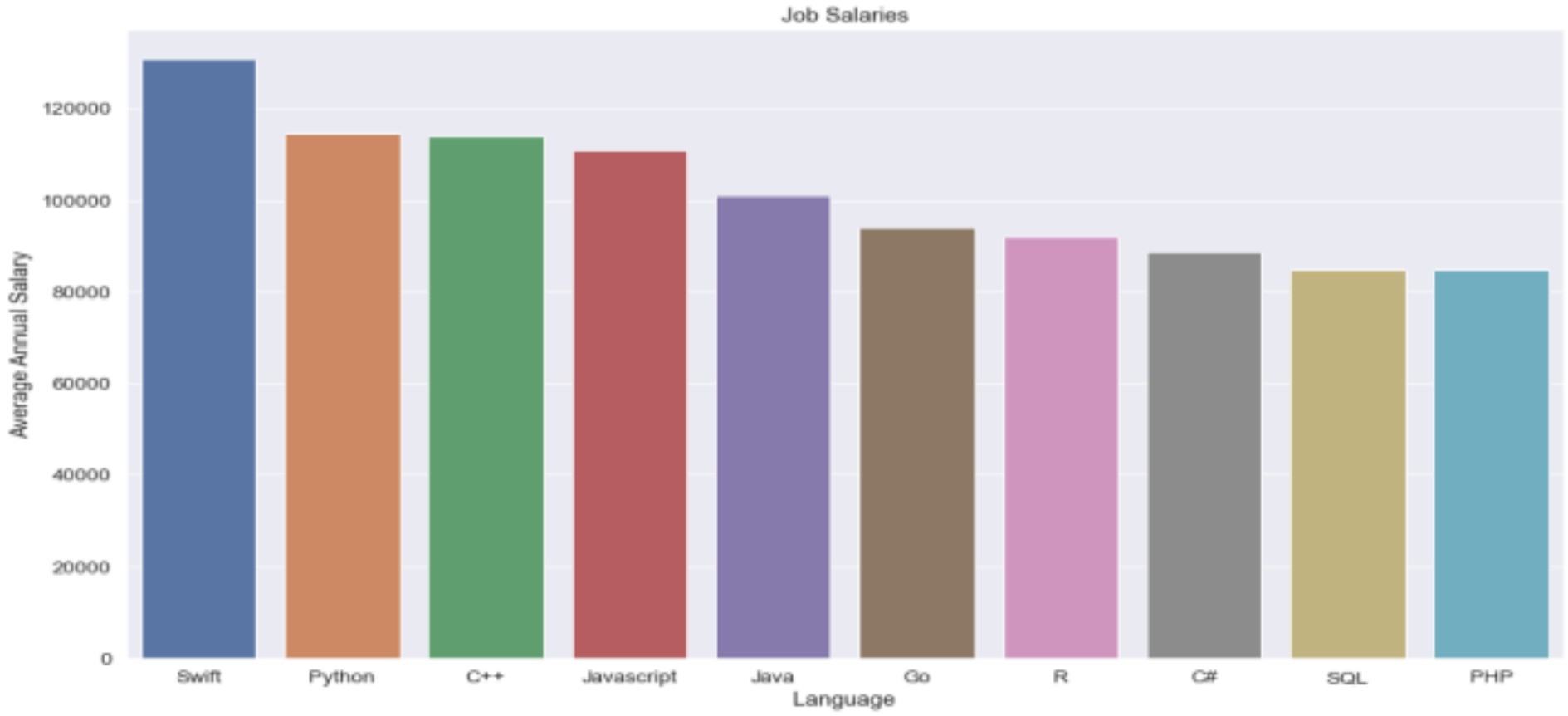




IBM Developer

SKILLS NETWORK

GITHUB JOB POSTINGS



POPULAR LANGUAGES