



Technology Trend Analysis

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March 10, 2023

IBM Developer

SKILLS NETWORK 

OUTLINE



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 - Dashboard
- Discussion
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- Conclusion
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EXECUTIVE SUMMARY



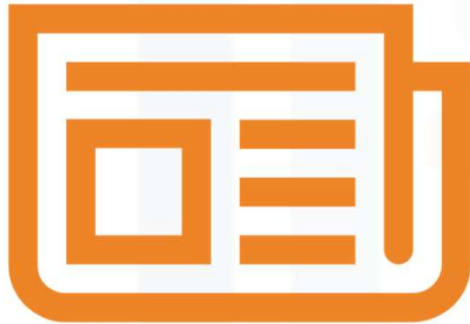
- Current Technology Usage
 - Top 10 Language
 - Top 10 Database
 - Platform
 - Top 10 Webframe
- Future Technology Trend
 - Top 10 Language
 - Top 10 Database
 - Platform
 - Top 10 Webframe
- Demography Survey
 - Respondent by Gender
 - Respondent by Country
 - Respondent by Age
 - Respondent by Gender and Education

INTRODUCTION



- Analyze technology trend in language, database, platform, and webframe. The analysis also performs the demography of responding to technology.
- Purpose of this analysis
 - Identify top 10 programming languages, databases, platform and webframes skills mostly using.
 - Identify top 10 programming languages, databases, platforms, and webframe mostly used in future.
 - Explore the demographics by gender, age, country, and education
- Audience
 - IT students, developers
 - People who is interested in IT
 - Data analysts
 - Tech Companies

METHODOLOGY



- Data Collection
 - Sources from Stackoverflow
 - Using 2 datasets:
 - [m5_survey_data_demographics.csv](#)
 - [m5_survey_data_technologies_normalised.csv](#)
- Visualization using IBM Cognos
- Presentation

RESULTS

The results may not correct deal to the uncleaned datasets. So this analysis is just for a quick view of trends.

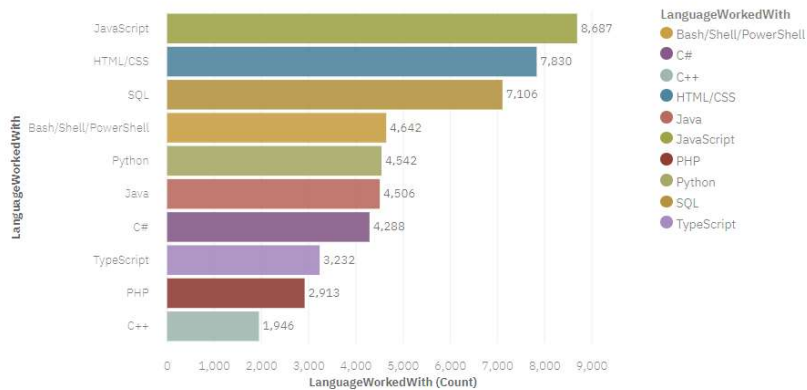
	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear	PlatformWorkedWith	
	0	4	C	C	MySQL	MySQL	Linux
	1	4	C++	C#	SQLite	SQLite	Windows
	2	4	C#	JavaScript	NaN	NaN	NaN
	3	4	Python	SQL	NaN	NaN	NaN
	4	4	SQL	NaN	NaN	NaN	NaN

	74584	25142	Go	Python	NaN	NaN	NaN
	74585	25142	HTML/CSS	R	NaN	NaN	NaN
	74586	25142	PHP	NaN	NaN	NaN	NaN
	74587	25142	Python	NaN	NaN	NaN	NaN
	74588	25142	R	NaN	NaN	NaN	NaN

TOP 10 PROGRAMMING LANGUAGE TRENDS

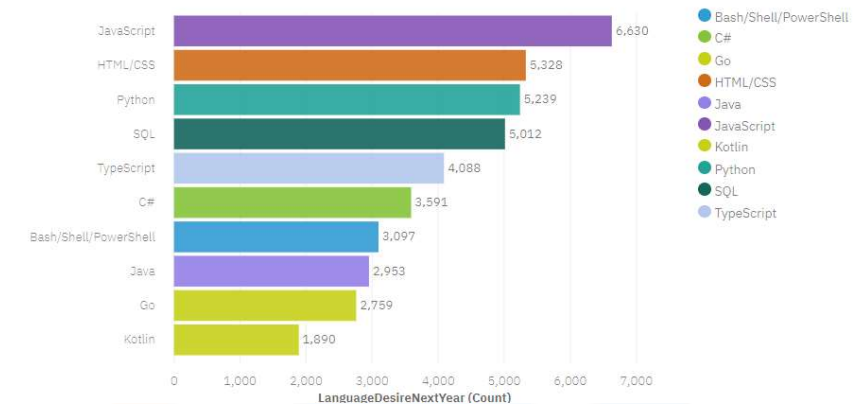
Current Year

Top 10 LanguageWorkedWith



Next Year

Top 10 LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Javascript and HTML/CSS are in top trending of programming language.
- Python will be a most used in future
- C++ is using less and it may not be used popularly in future

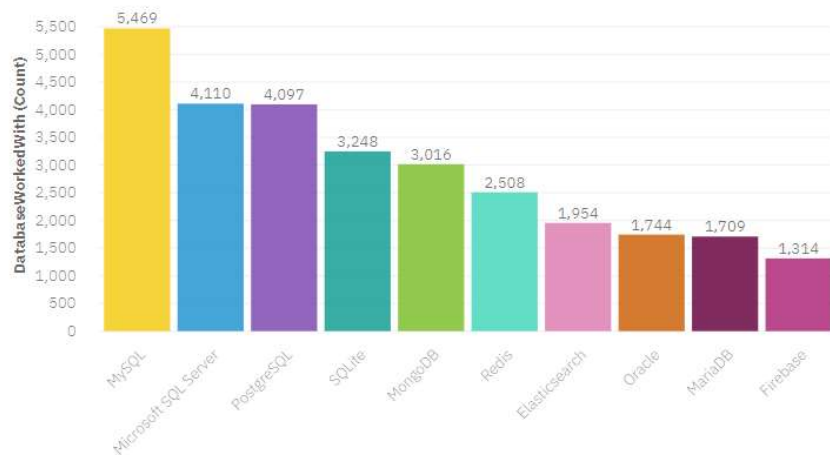
Implications

- The web developments are still in high demands
- Potential of AI- driven development
- Close to C, and complicate to learn

TOP 10 DATABASE TRENDS

Current Year

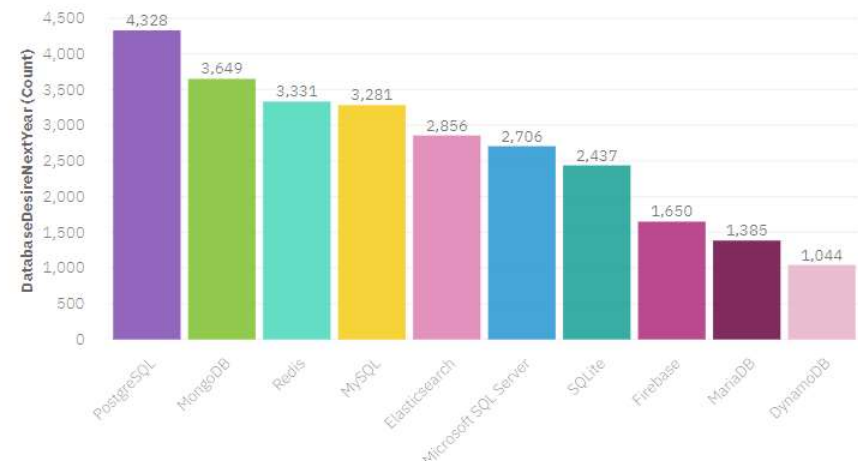
Top10 DatabasedWorkWith



DatabaseWorkedWith

Next Year

Top 10 DatabaseDesireNextYear



DatabaseDesireNextYear

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL will be replaced by PostgreSQL in future
- The significant change in use of databases
- MongoDB and Redis are the most favorable NoSQL database

Implications

- The support application features of PostgreSQL more than on MySQL
- Developers seems to find the tool that more easier and convenient to use
- NoSQL may make impact on rational database

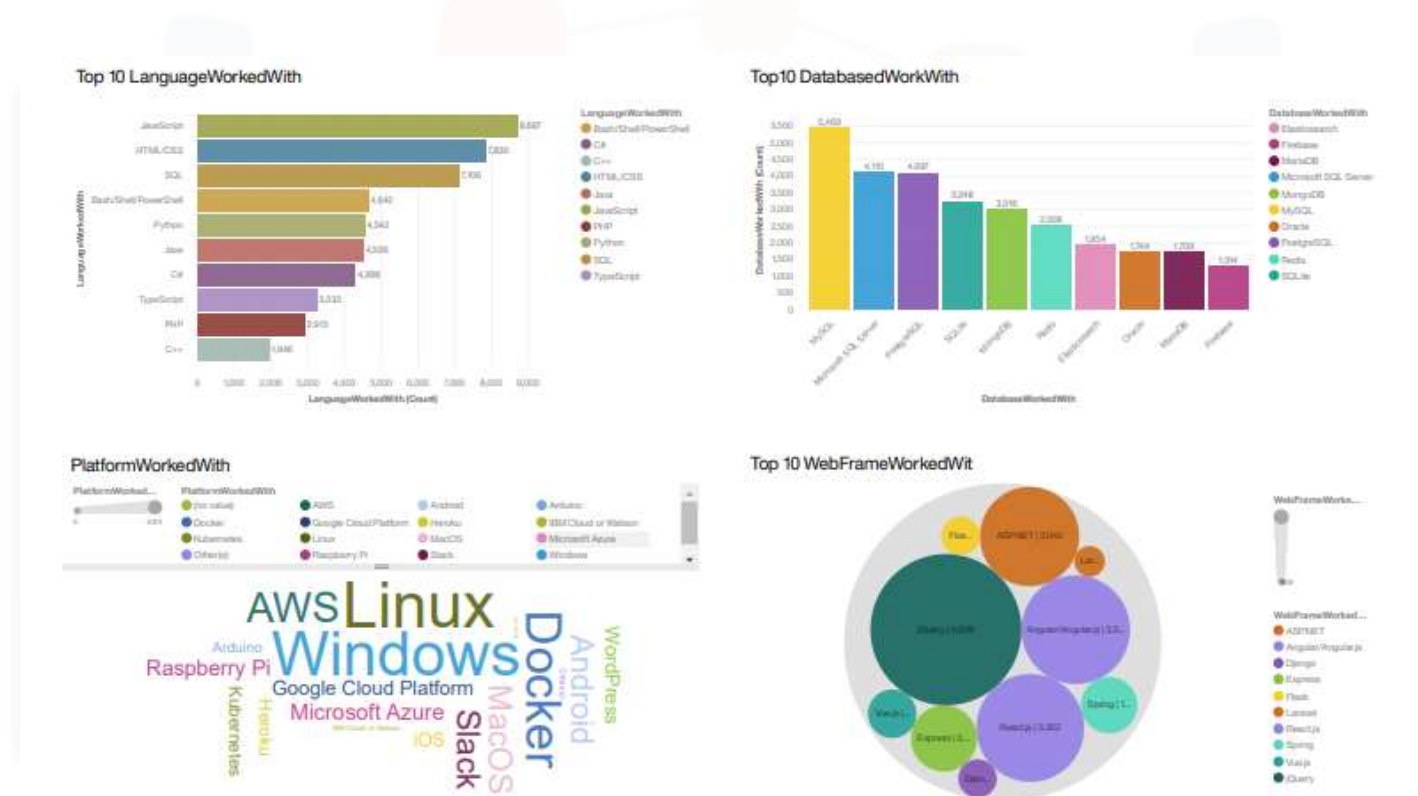
DASHBOARD

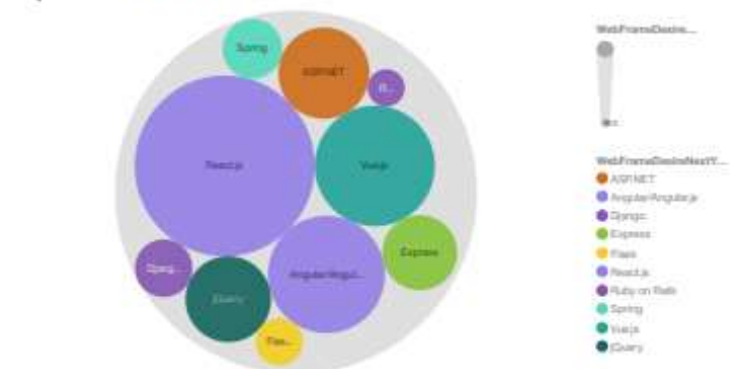
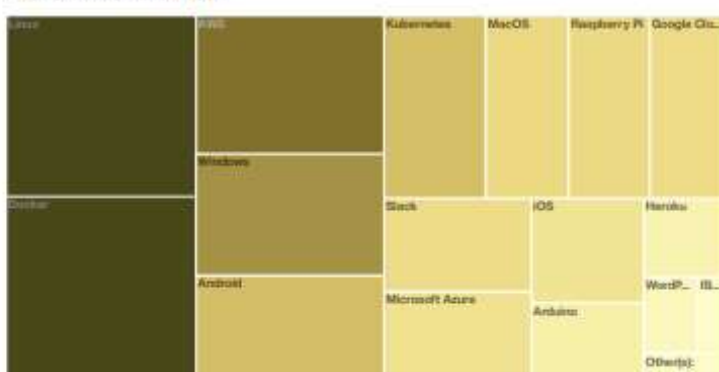
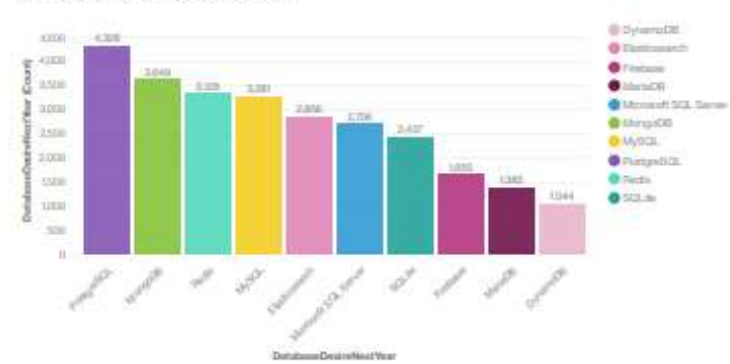
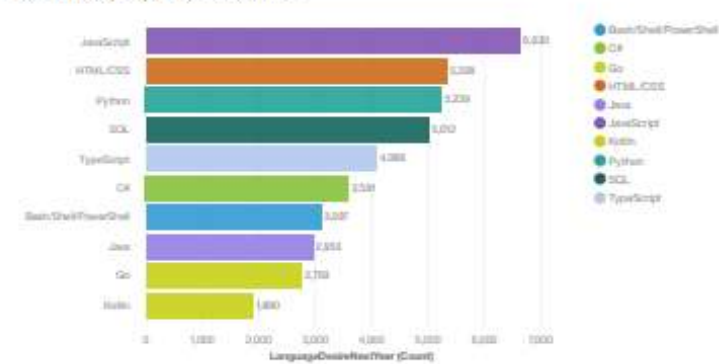


<The permanent link of the read-only view of the Cognos dashboard goes here.>

<https://dataplatform.cloud.ibm.com/dashboards/d2564013-7ad1-4cc4-9e31-d7ce3f798510/view/5f63c5022fbd1fd312f7eae4079e2d577f61260ce0bbd70583877b4907342397f0614298c8261e0c8f470567a5ba415c9d>

DASHBOARD – Current Technology Usage

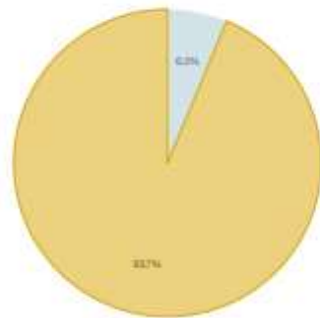




DASHBOARD - Demographics

Respondent classified by Gender

Gender
 Woman Man

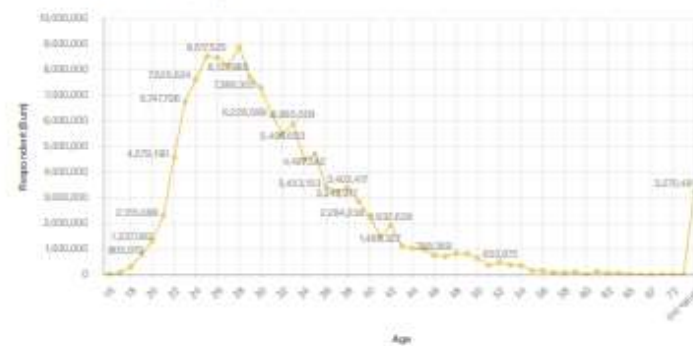


Respondent Count Per Country

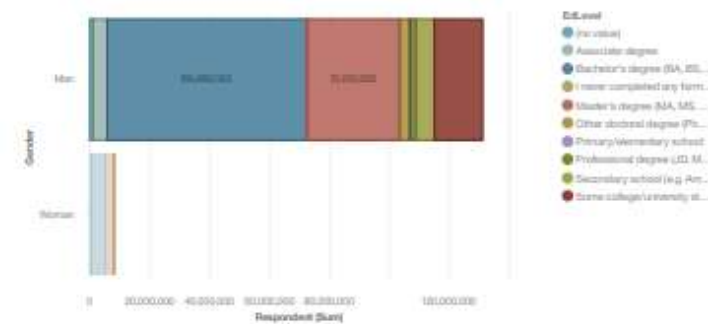
Respondent (Sum)
 0 25,000,000



Respondent Count by Age



Respondent Count by Gender, classified by Education Level



DISCUSSION

- Technology Usage Now & Future
- Gender, Age, Country, and Education in IT industry

OVERALL FINDINGS & IMPLICATIONS

Findings

- Technology is changing and developing everyday
- USA is still the top country in tech
- The big difference in distribution of gender in tech.
- The peak of age in tech between 24 and 36 year old

Implications

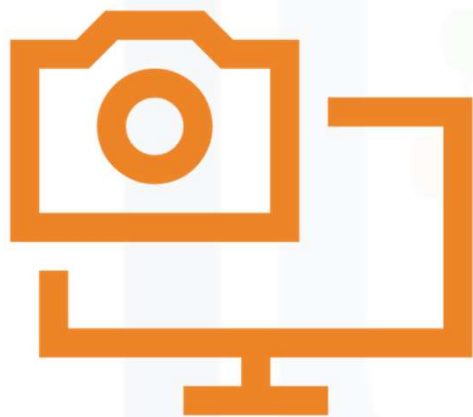
- IT require people who is in need to improve the skills and knowledge day by day
- Gender should not be a big gap in between in tech. There should be more associations for women.

CONCLUSION



- The analysis giving a clear points of how usage and trending in programming languages, database, platform, and webframe. We will have a better picture of what tools and app usage now and future usage so that student/ developer/ tech companies will have better strategies for their option insider.

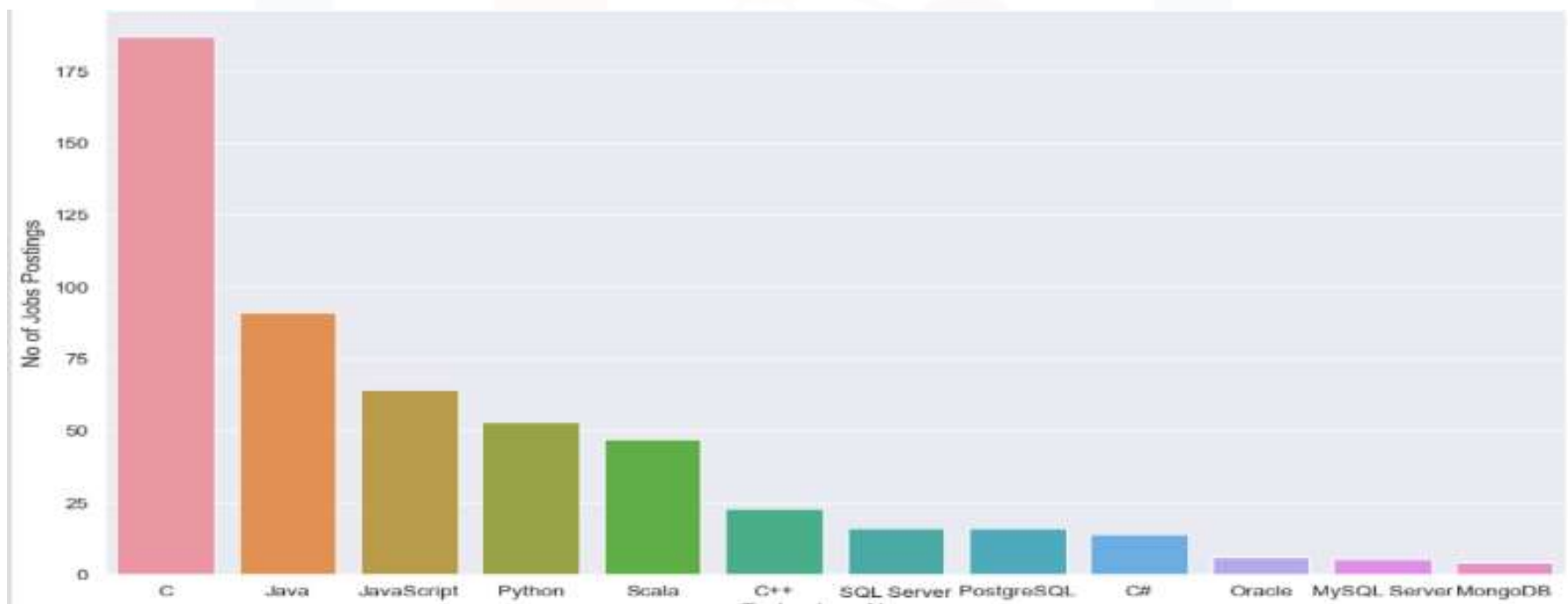
APPENDIX



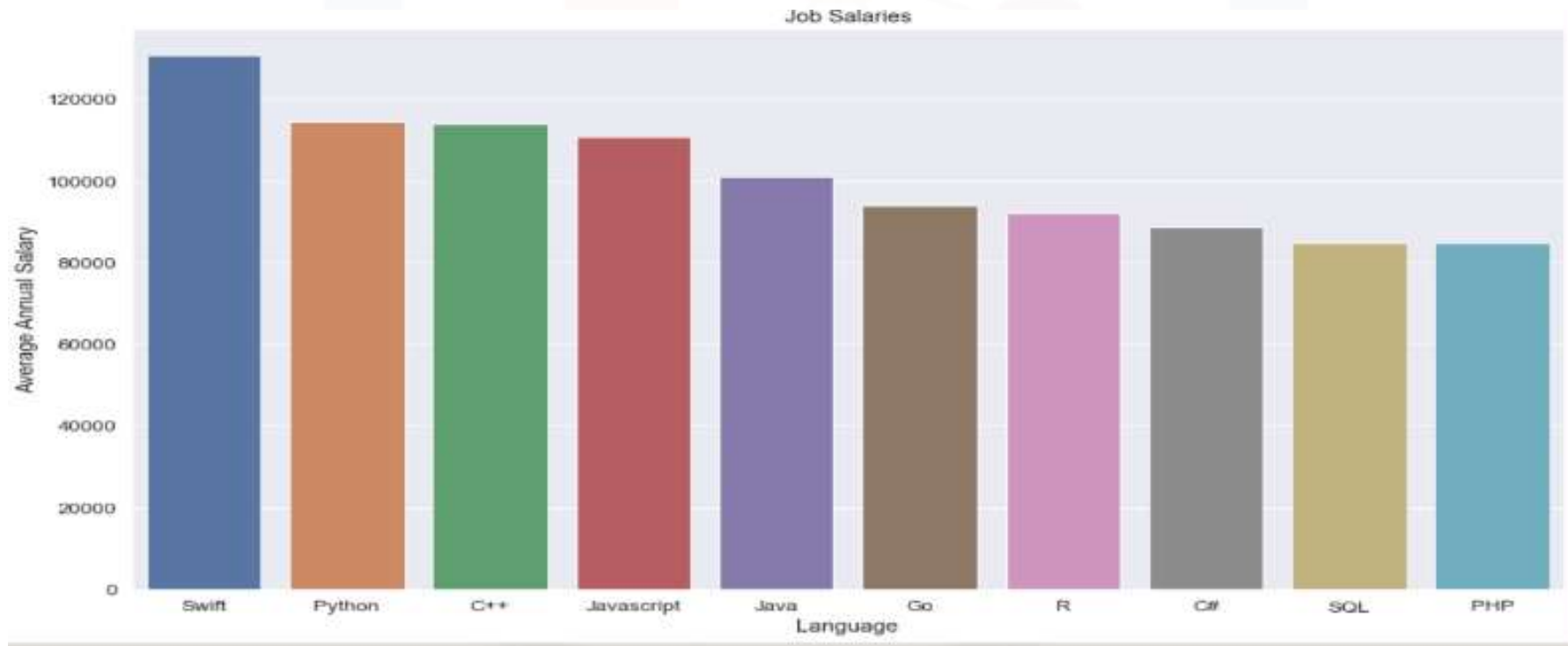
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JOB POSTINGS



POPULAR LANGUAGES



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