TECHNOLOGY TRENDS & ANALYSIS

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28th APRIL, 2023

OUTLINE

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

- Current Technology Usage
  - Top 10 Languages and Databases Worked With
  - Mostly Used Platforms
  - Top 10 Web frames
- Future Technology Trends
  - Top 10 languages and Databases
  - Platforms
  - Top 10 Web frames
- Demographic Survey
- Technological gaps in countries
- Gender gaps in jobs

INTRODUCTION

Aim:

- To understand the Technological trends
- Identify skills requirements for the future
- Identify the top Languages in demand
- Identify the top Databases in demand
- Identify the Popular IDEs

Audience: Human Resource and IT Head

METHODOLOGY

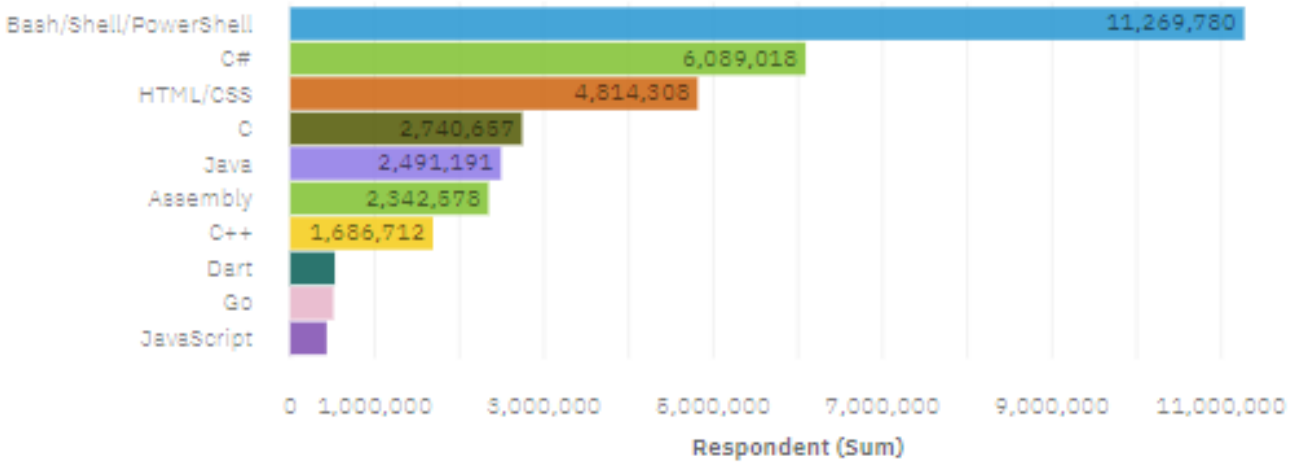
- Data Collection
- Data Exploration
- Data Cleaning
- Data Visualization
- Presentation of Data

RESULTS

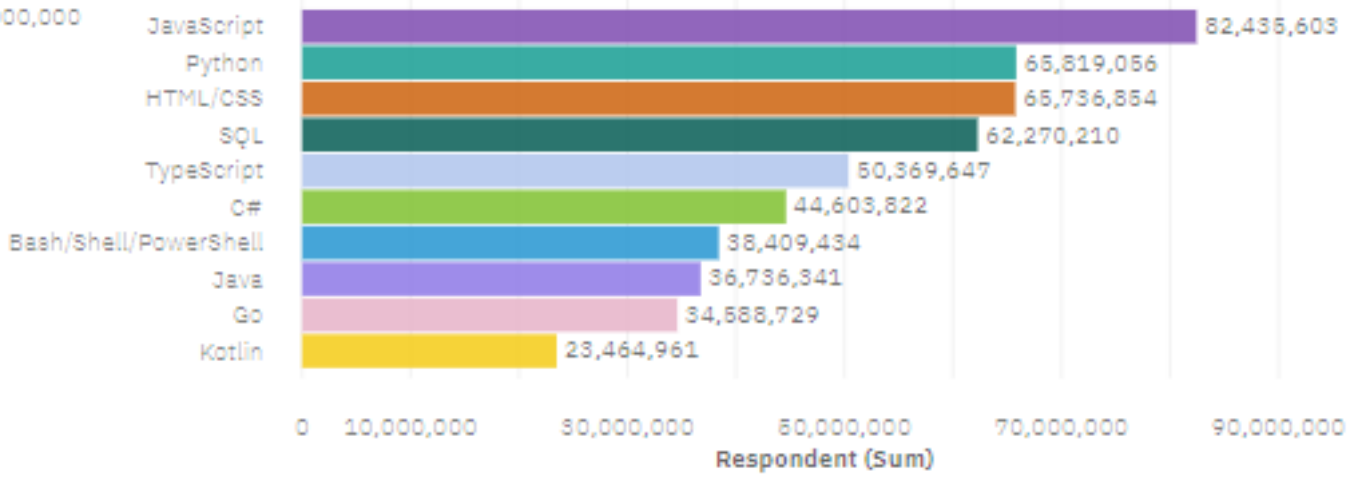
	A	B	C	D	E	F	G	H	I
1	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear	PlatformWorkedWith	PlatformDesireNextYear	WebFrameWorkedWith	WebFrameDesireNextYear
2									
3	4	C	C	MySQL	MySQL	Linux	Linux		
4	4	C++	C#	SQLite	SQLite	Windows	Windows		
5	4	C#	JavaScript						
6	4	Python	SQL						
7	4	SQL							
8	9	Bash/Shell/PowerShell	Bash/Shell/PowerShell	DynamoDB	PostgreSQL	AWS	AWS	Express	Express
9	9	C#	C	PostgreSQL	Redis	Docker	Docker	Ruby on Rails	Ruby on Rails
10	9	HTML/CSS	HTML/CSS	SQLite	SQLite	Heroku	Heroku	Other(s):	Other(s):
11	9	JavaScript	JavaScript			Linux	Linux		
12	9	Python	Ruby			MacOS	MacOS		
13	9	Ruby	Rust			Slack	Slack		
14	9	Rust	SQL				Other(s):		
15	9	SQL	TypeScript						
16	9	TypeScript	WebAssembly						
17	9	WebAssembly	Other(s):						
18	9	Other(s):							
19	13	Bash/Shell/PowerShell	Bash/Shell/PowerShell	Couchbase	Firebase	Android	Android	Angular/Angular.js	Express
20	13	HTML/CSS	HTML/CSS	DynamoDB	MySQL	AWS	AWS	ASP.NET	Vue.js
21	13	JavaScript	JavaScript	Firebase	Redis	Docker	Docker	Express	
22	13	PHP	Rust	MySQL		IBM Cloud or Watson	IBM Cloud or Watson	jQuery	
23	13	SQL	SQL			iOS	Linux	Vue.js	
24	13	TypeScript	TypeScript			Linux	Slack		
25	13		WebAssembly			MacOS	Windows		
26	13					Microsoft Azure	WordPress		
27	13					Slack			
28	13					Windows			
29	13					WordPress			

PROGRAMMING LANGUAGE TRENDS

Top 10 Languages Worked With



Top 10 Languages Desired Next Year



IBM Developer

SKILLS NETWORK

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

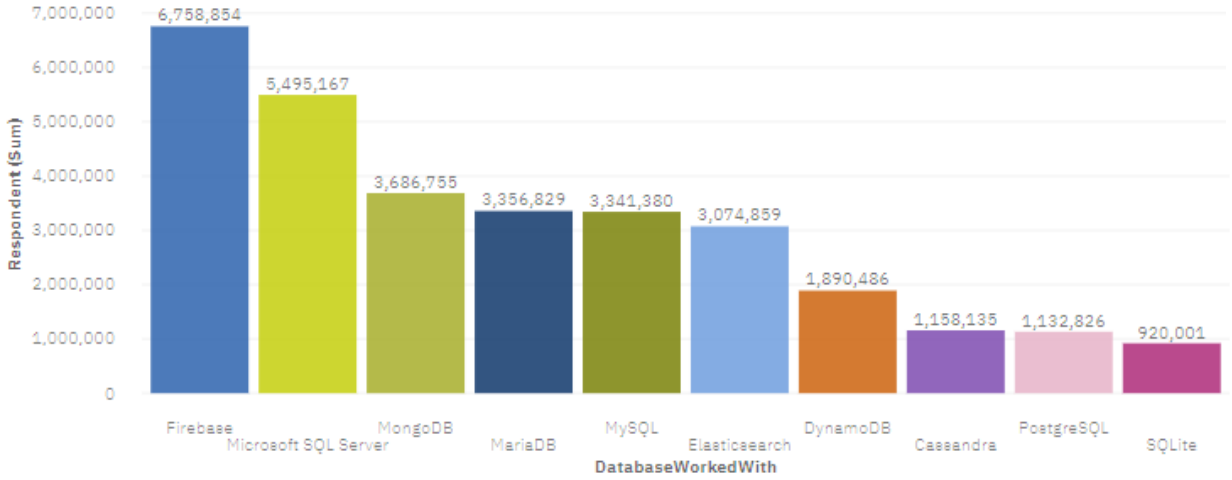
- Bash/Shell/PowerShell which is in high demand in the current trend, have low demand in the future trend
- HTML/CSS are still in demand both in the current trend and future trend
- JavaScript and Python has the rising trend

Implications

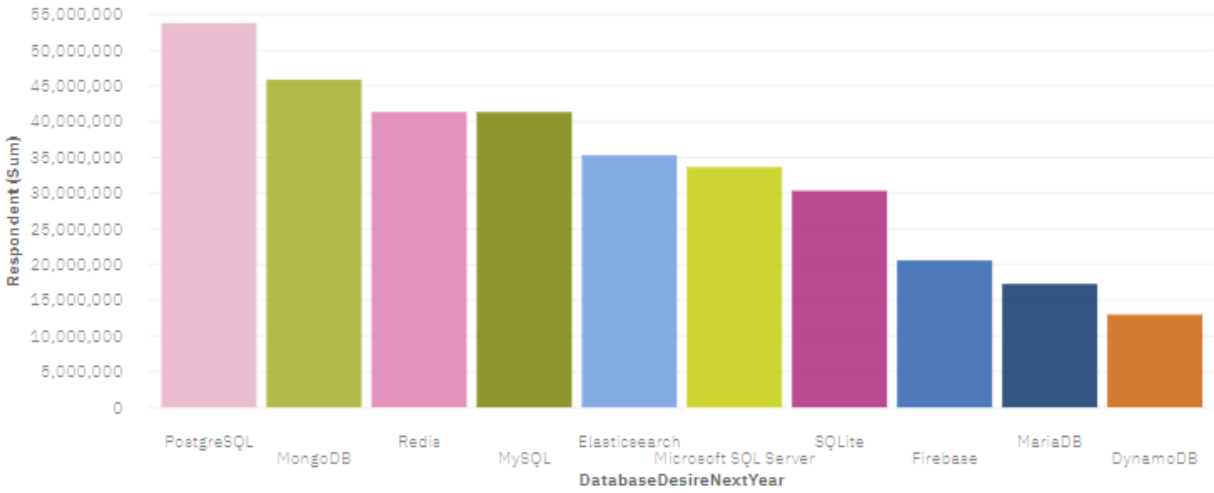
- The relevance of Bash/Shell/PowerShell are becoming low due to the development of AI and ML
- Web development are still in high demand
- Python and JavaScript are essential skills to be place more focus on

DATABASE TRENDS

Current Year



Next Year



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SKILLS NETWORK

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- RDMS has the dominant trend in the current usage.
- Non – RDMS have the dominant trend in future.

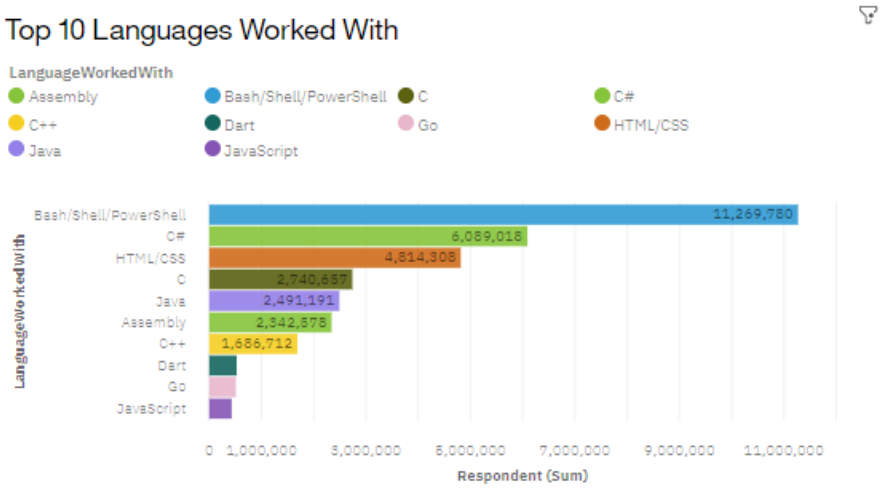
Implications

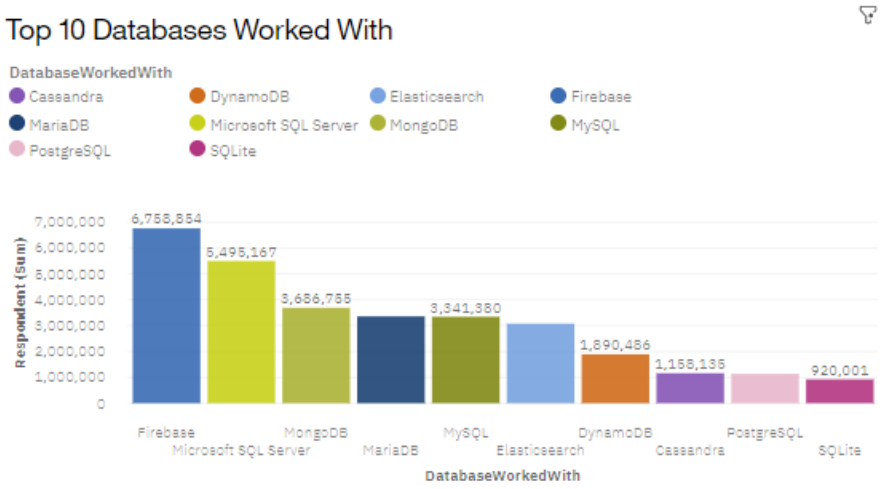
- People are highly interested in learning non - relational databases.
- Big Data have a rising popularity and should be placed more focus.

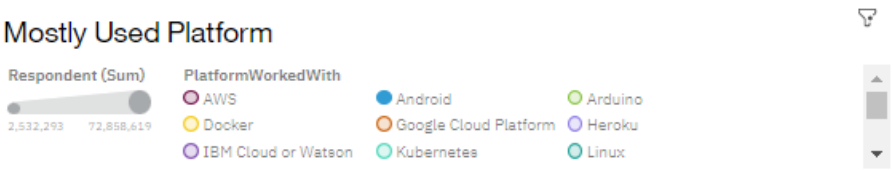
DASHBOARD

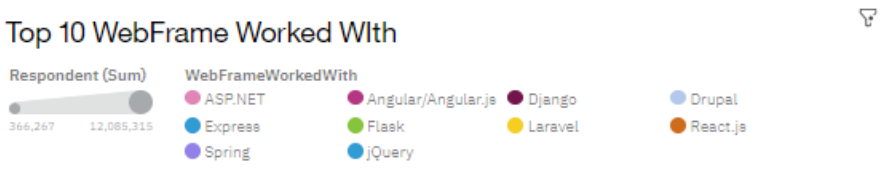
https://eu-de.dataplatform.cloud.ibm.com/dashboards/6880fcef-a2da-4bfe-aa11-c4e76f5a1968/view/4120a3601ea362fe64eac4e4079d7d0f2c332459e7bbd202858d7b495b357597a9601495c8291e08db470c31f4b8410d9a

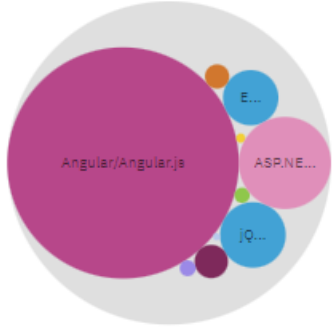
DASHBOARD TAB 1











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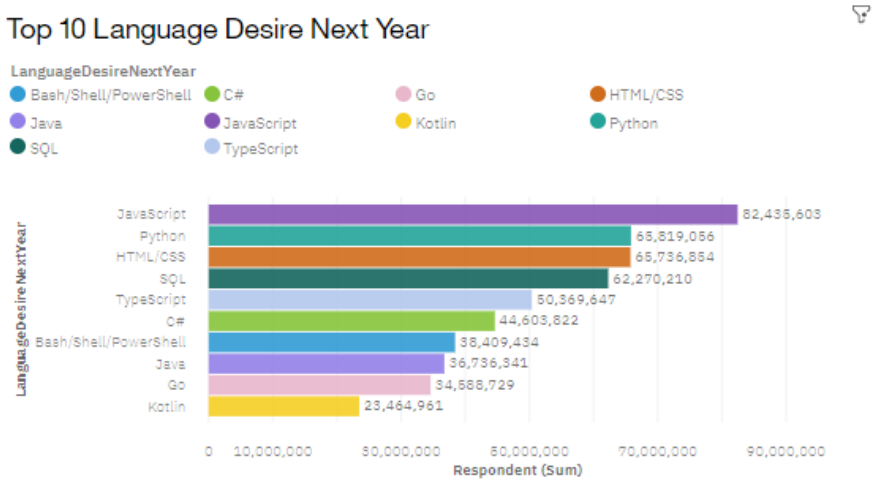
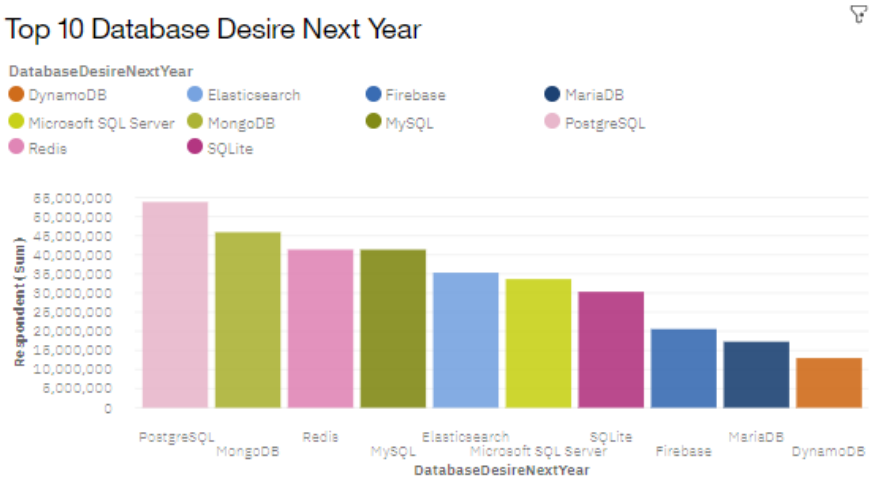
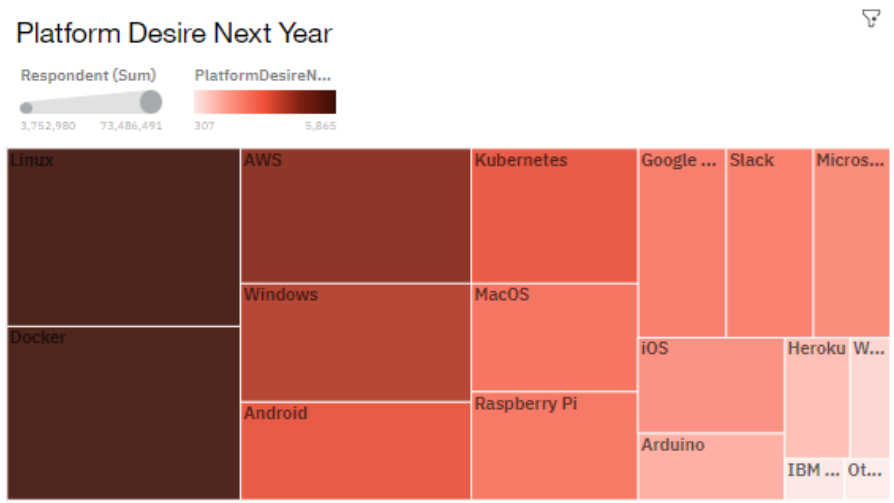
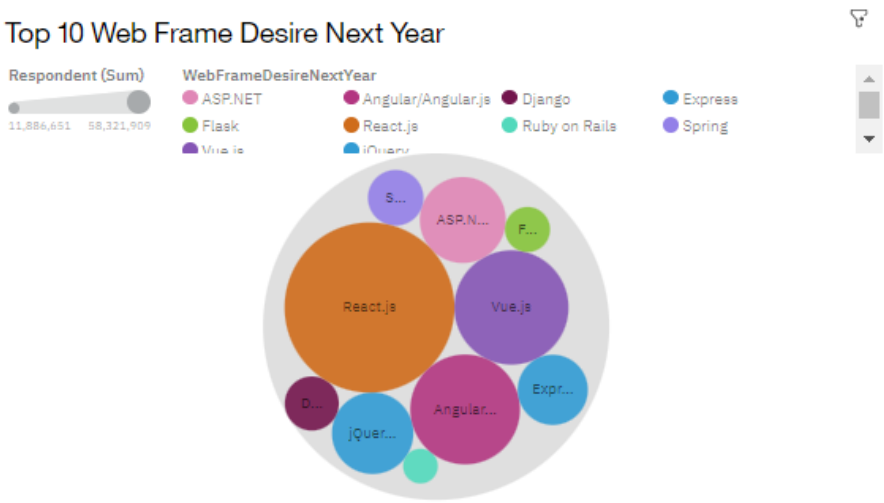
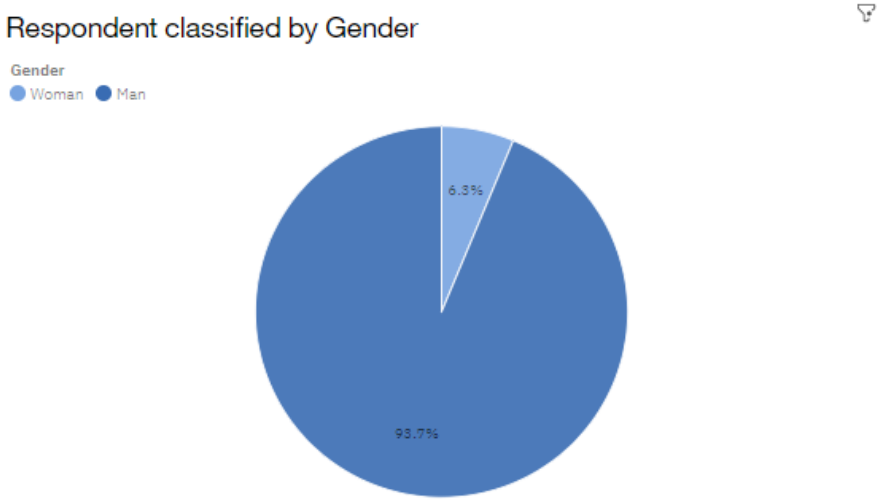


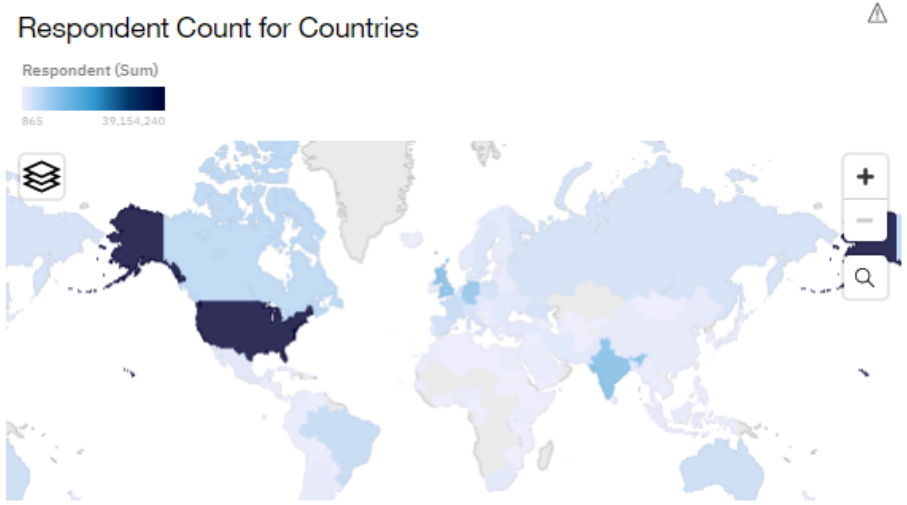


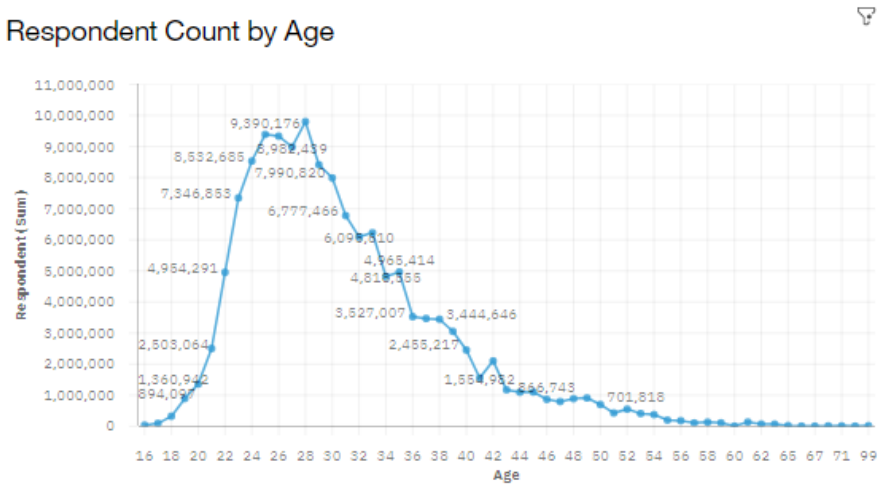


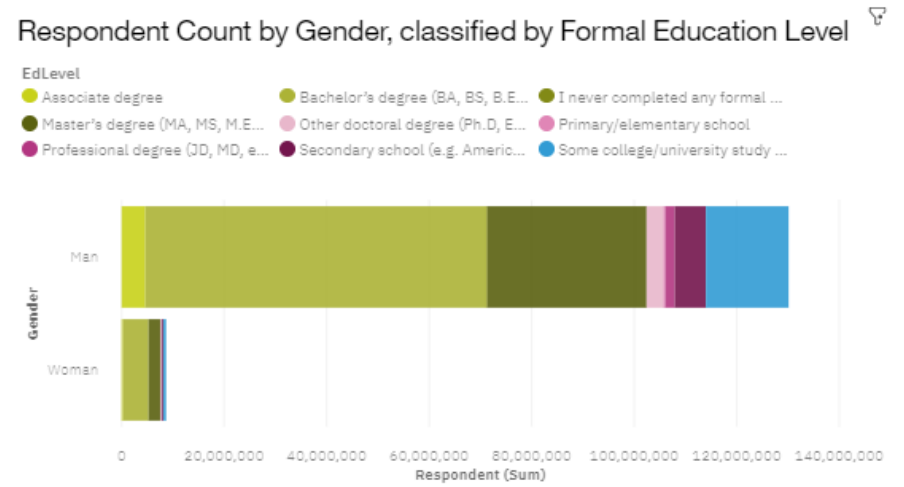


DASHBOARD TAB 3









DISCUSSION

- Training and Reskilling Workers
- Placing focus on Big Data and advance programming languages
- Technological gap in different countries
- Eliminate age and education discrimination in employment

OVERALL FINDINGS & IMPLICATIONS

Findings

- The Technological trends are fast changing
- Gender gap in technological jobs
- Platform like Docker and AWS are on the rise

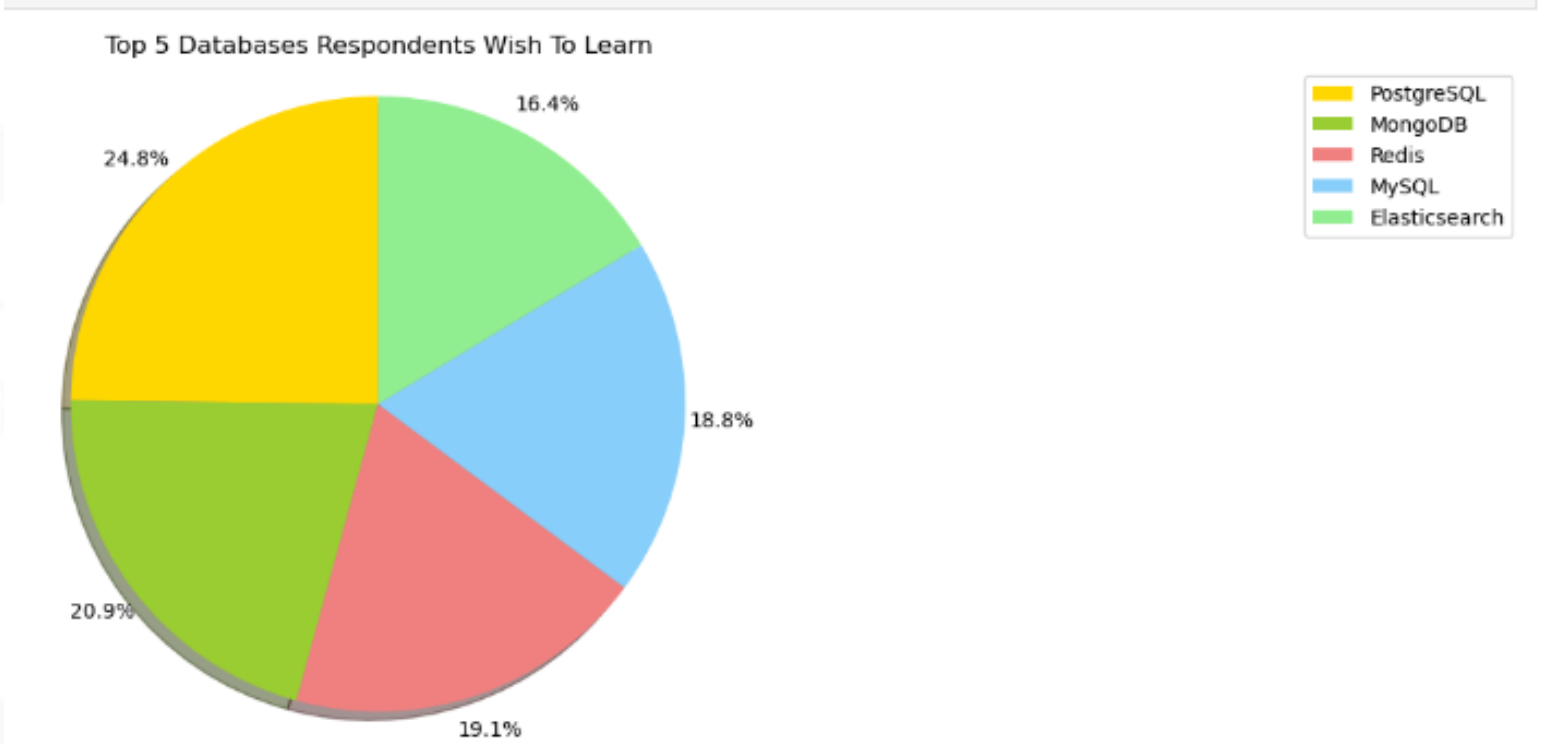
Implications

- Companies should be flexible and adjust those changes in their activities
- Impact job hiring
- Shifts to faster app developments and clouds services

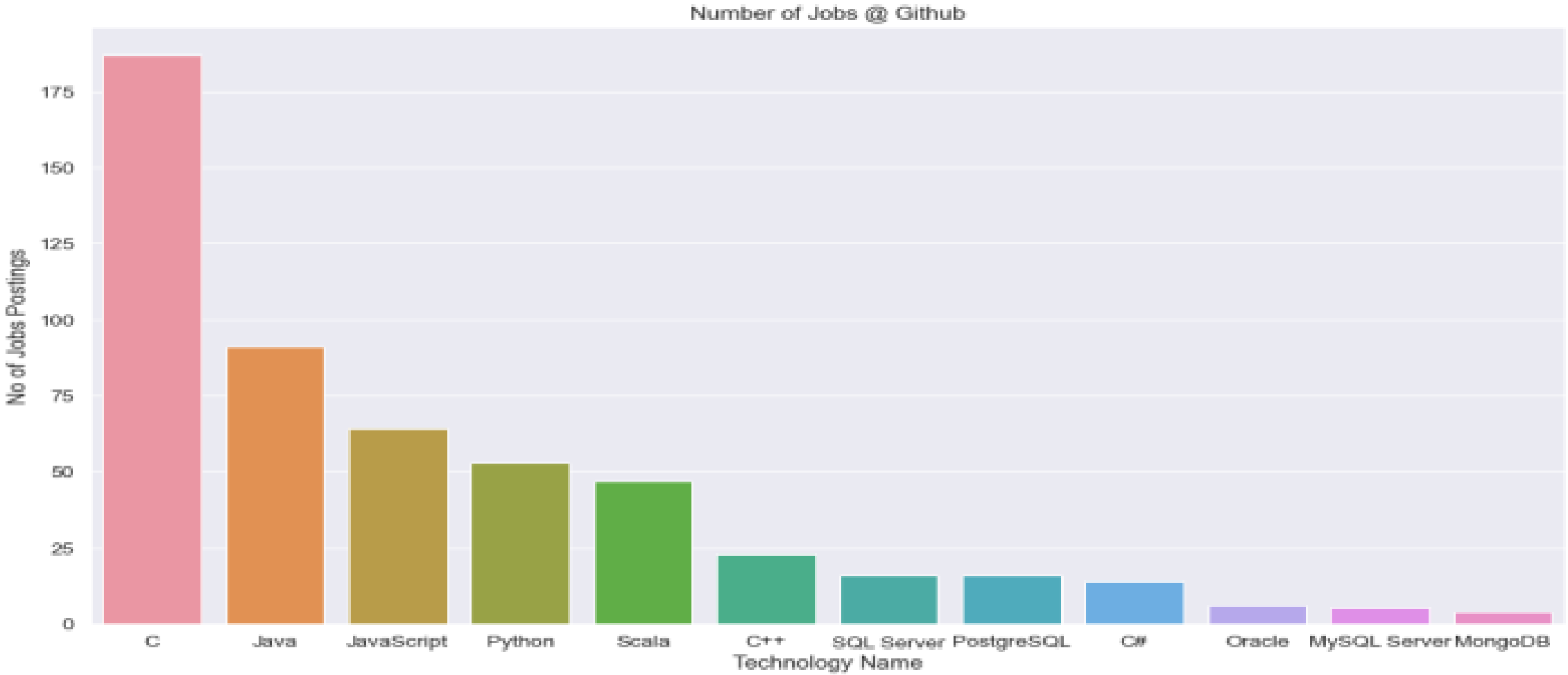
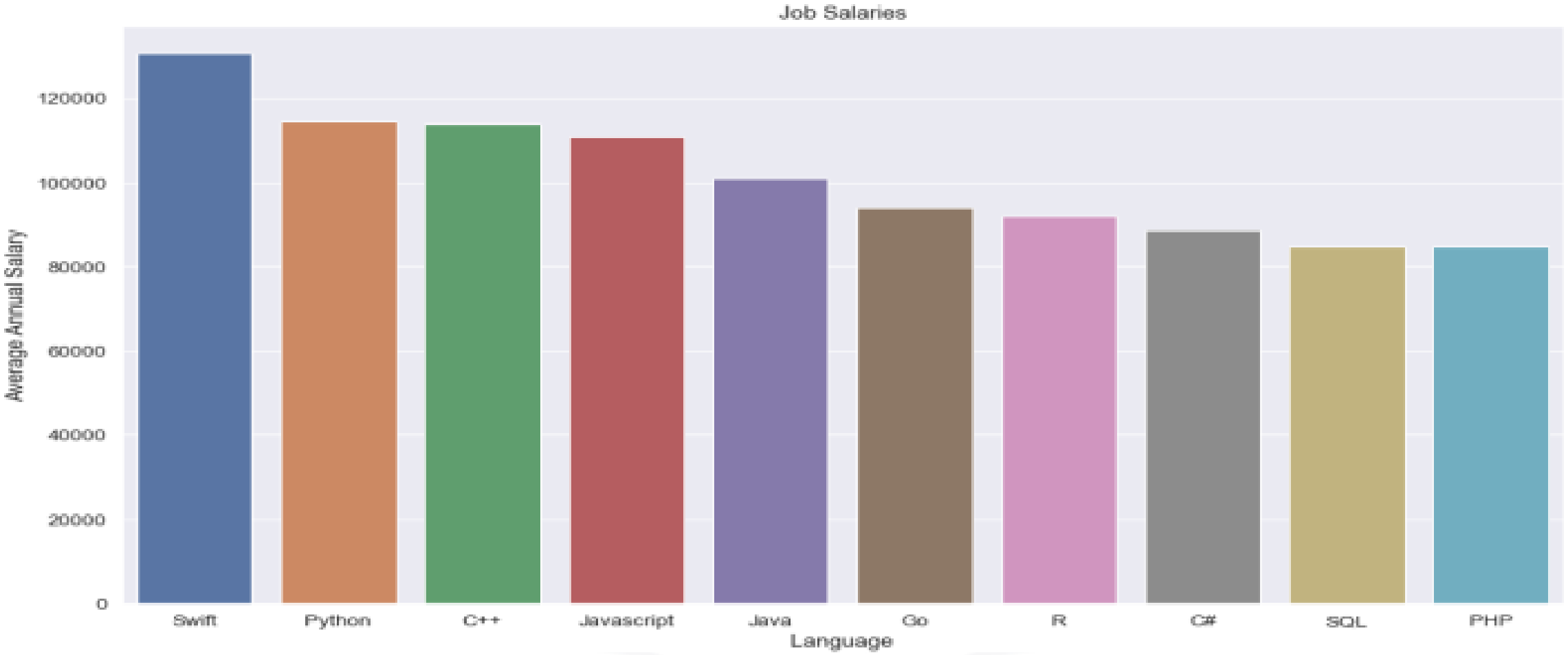
CONCLUSION

- Technological trend for both current year and next year
- Trending Demands in skill
- Demographic overview
- Actions to be taken

APPENDIX


Top 5 Databases Respondents Wish To Learn
16.4%
24.8%
18.8%
20.9%
19.1%
PostgreSQL
MongoDB
Redis
MySQL
Elasticsearch

JOB POSTINGS



POPULAR LANGUAGES