

# Technological Trends and Analysis Presentation

OHAEGBUNEM, FREDRICK UGO 18<sup>th</sup> MARCH, 2023

# OUTLINE



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

# **EXECUTIVE SUMMARY**



- Trends in programming languages and Databases
- Demographics survey
- Technological gap in countries
- Gender gap in jobs

# INTRODUCTION



#### **About:**

Analyzing the trends in software development

#### **Purpose:**

- Identify skill requirements for future
- What are the top programming languages in demand?
- What are the top database skills in demand?
- What are the popular IDEs



# **METHODOLOGY**



#### **☐** Data Collection Sources

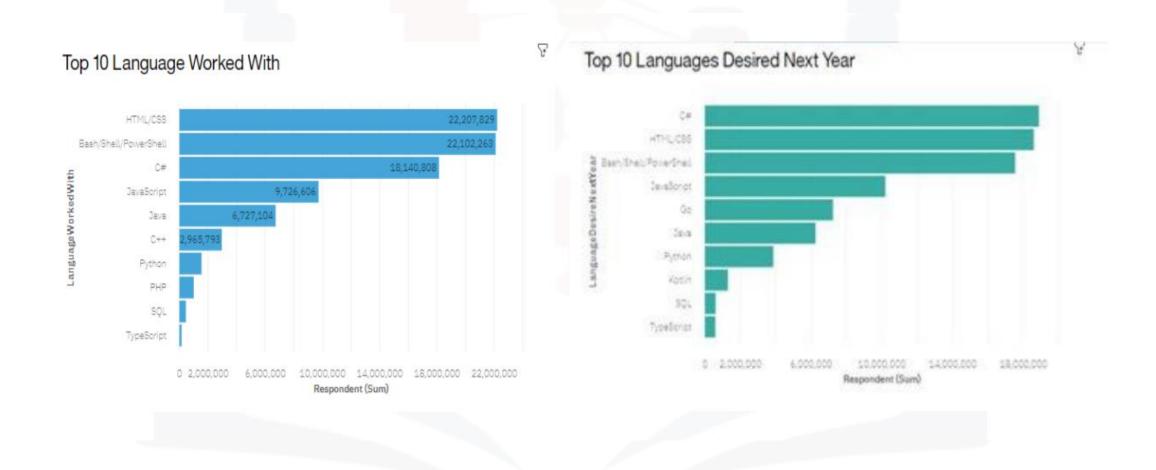
Stack Overflow Developer 2019 Survey Github Job Postings Programming **Languages Annual Salary** 

- **□** Data Exploration
- ☐ Data Cleaning
- Data Visualization
- Presentation

# **RESULTS**

	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear
1.	25142	R			
2.	25142	Python			
3.	25142	C	С		
4.	25142	Co	Python		
5.	25142	C++	C++		
6.	25142	HTML/CSS	R		
7.	25142	PHP			
8.	25142	Bash/Shell/PowerShell	Bash/Shell/PowerShell	PostgreSQL	PostgreSQL
9.	25141	C#	F#		Microsoft SQL Server
10.	25141	JavaScript			
11.	25141	TypeScript			
12.	25141	HTML/CSS			Redis
13.	25141	Java			
14.	25141	Python			

### PROGRAMMING LANGUAGE TRENDS



#### PROGRAMMING LANGUAGE TRENDS - FINDINGS & **IMPLICATIONS**

#### **Findings**

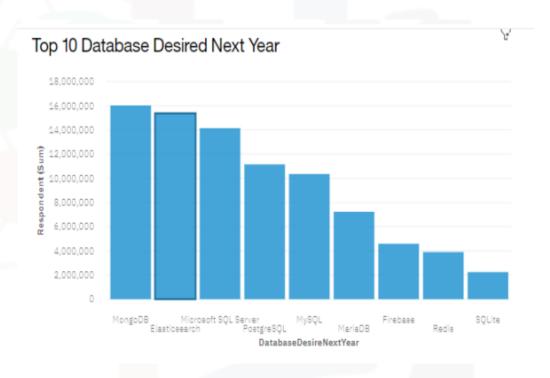
- JavaScript, HTML/CSS,SQL are top 3 this year
- Python and Typescript becoming popular next year
- PowerShell edged out in next year

#### **Implications**

- Web development are still in high demand
- Big Data technology in companies still requires SQL
- With Al and ML in rising demand, Python is best choice

# DATABASE TRENDS







# DATABASE TRENDS - FINDINGS & **IMPLICATIONS**

#### **Findings**

- MySQL most popular Behind is Microsoft SQL
- MongoDB and Redis are upcoming favorites
- New kid on the block: Elasticsearch

#### **Implications**

- Open source database are still preferable in companies
- NoSQL databases will make an impact for storing non relational data
- Redis supports abstract data types3



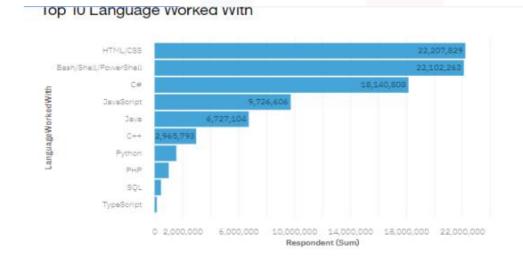
### **DASHBOARD**

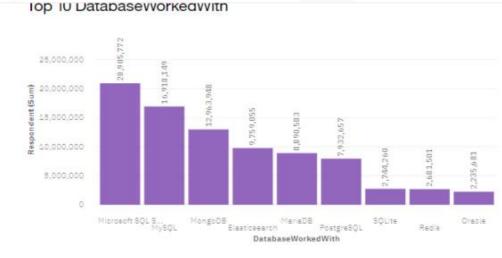


https://dataplatform.cloud.ibm.com/dashboards/a1f13e14d695-4a9a-9777-

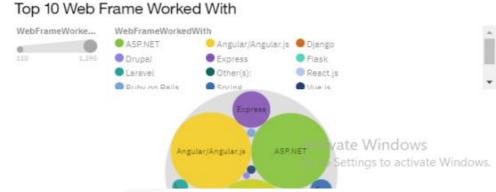
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# DASHBOARD TAB 1

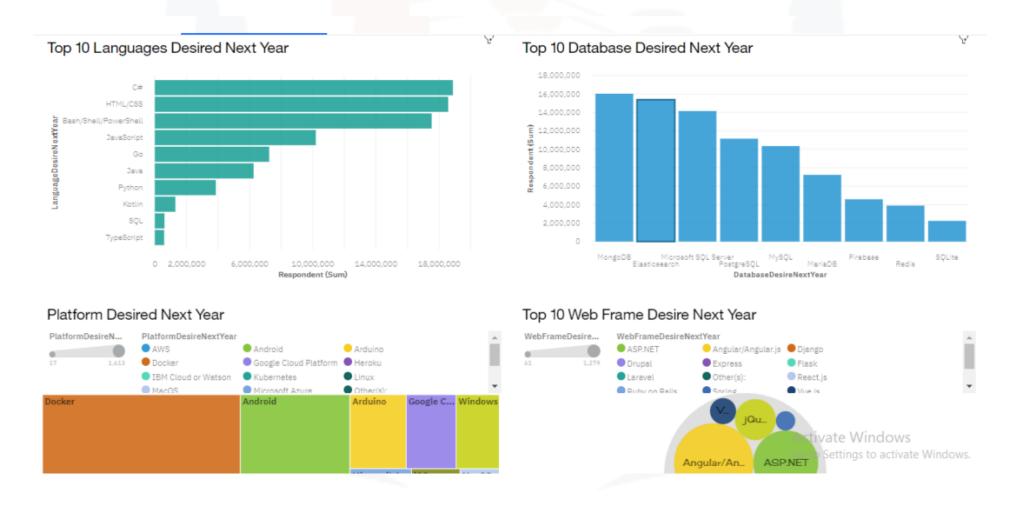




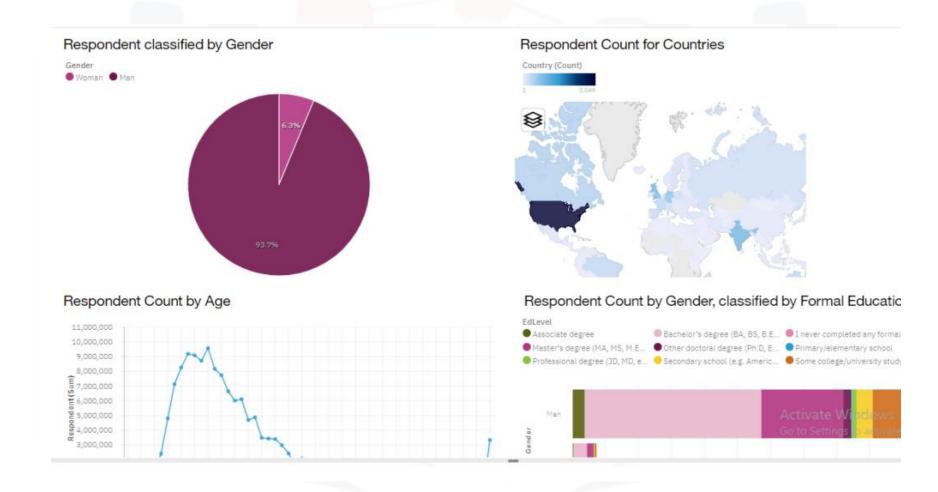




# DASHBOARD TAB 2



# DASHBOARD TAB 3



# **DISCUSSION**



- Technology Trends now and future
- Training and Reskilling workers
- Female participation in Technology field
- Eliminate age and education discrimination in employment

# OVERALL FINDINGS & IMPLICATIONS

#### **Findings**

- Fast changing technology every year
- Concentration on several countries like USA and India
- Gender gap in technology jobs

#### **Implications**

- Companies need to be flexible and adjust to rapid change
- Need to spread technology out to lagging countries
- Impact of job hiring's

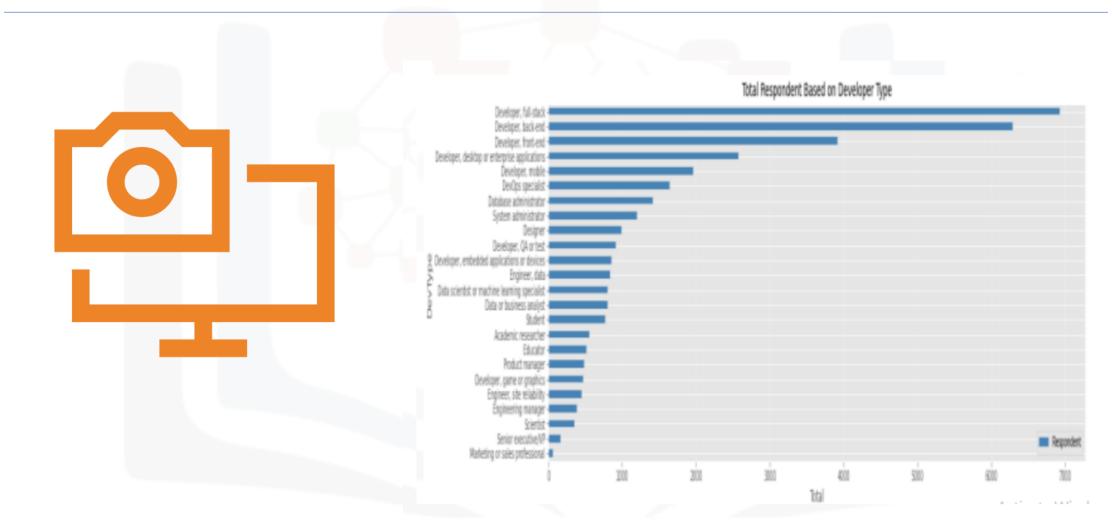
# CONCLUSION



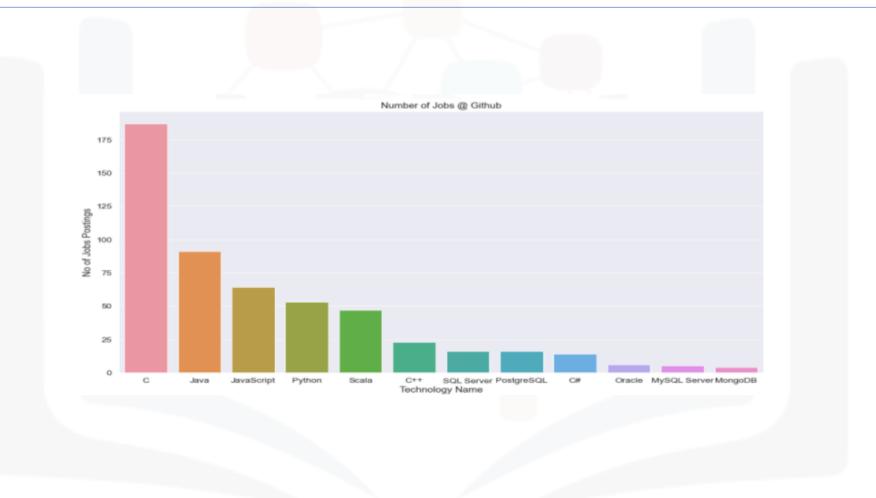
- Technology Trends for current and next year
- Programming languages, **Database and Platform** overview
- Demographics overview
- Actions to be taken



# **APPENDIX**



# JOB POSTINGS



# POPULAR LANGUAGES

