

## **TECHNOLOGICAL HORIZONS**

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## **OUTLINES**



- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization Charts
  - Dashboards
- Discussions
  - Findings & Implications
- Conclusion
- Appendix

### **EXECUTIVE SUMMARY**



- The Current Technology Usage and Future Technology Trends
  - Programming Languages
  - Databases
  - Web Frames
  - Platforms
- The Demographics Survey
  - Gender Classification
  - Age Distribution
  - Geographical Distribution
  - Education Level Classification

## **INTRODUCTION**

Understanding the Current & Future Technology Trends



### Key Areas To Focus:

- Tools and Technologies actively working with.
- Tools and Technologies aspiring to adopt in future.
- Global perspective by reflecting the demographics

## **METHODOLOGY**



- Analysis
- Data Collection(from the Survey)
- Data Wrangling
- Exploratory Data Analysis(EDA)
- Analytical Techniques
- Visualization
- Dashboards

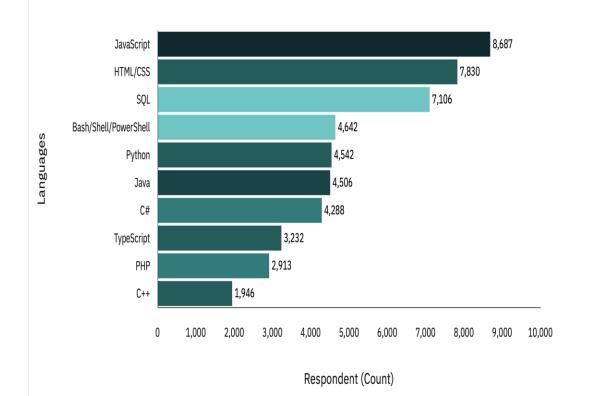
### **RESULTS**

- 1. The analysis of Technology Trends revealed the following:
  - Top 10 currently used Programming languages, Databases, Platforms, and Web-Frames.
  - Top 10 future emerging Programming languages, Databases, Platforms, and Web-Frames.
- 2. The analysis of Demographics revealed the count of respondents based on the following terms:
  - Gender classification
  - Distribution across different countries
  - Distribution by different Age groups
  - Education level classification

## PROGRAMMING LANGUAGE TRENDS

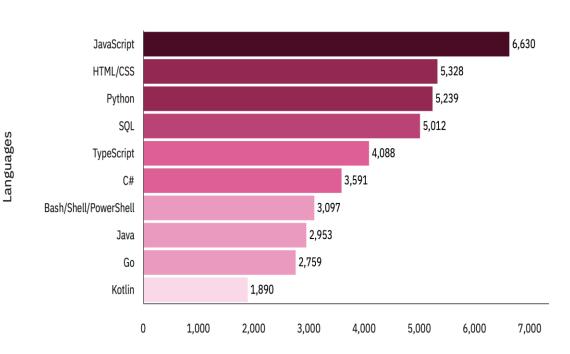
#### **Current Year**

#### **Top 10 Languages Respondents Worked With**



#### **Next Year**

#### Top 10 Languages Respondents Desire Next Year



Respondent (Count)

### PROGRAMMING LANGUAGE TRENDS

### **Findings**

- Java, HTML/CSS, SQL are the top 3 languages in current year.
- Python has gained importance in the desire next year.
- Go and Kotlin languages are expected to increase in future.

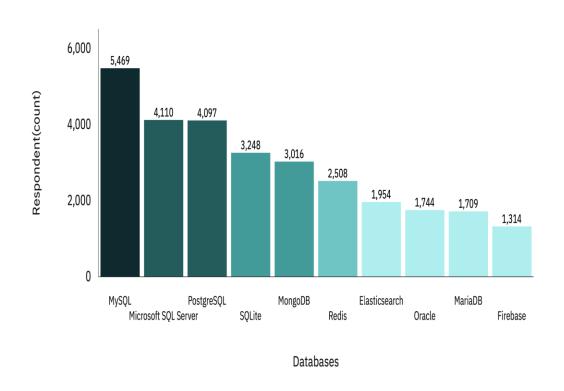
### **Implications**

- Companies should adopt Java and Python projects in the future.
- Developers should be trained on Go and Kotlin.
- Companies should develop software tools compatible with Python.

### **DATABASE TRENDS**

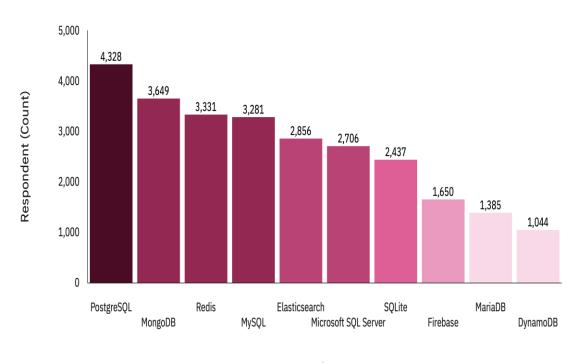
#### **Current Year**

**Top 10 Databases Respondents Worked with** 



#### **Next Year**

#### **Top 10 Databases Respondents Desire Next Year**



Databases

### **DATABASE TRENDS**

### **Findings**

- MySQL, PostgreSQL, and Microsoft SQL Server are the top databases.
- MongoDB and Redis are the top No-SQL databases.
- PostgreSQL, MongoDB, and Elasticsearch are the emerging databases in the future.

### **Implications**

- Developers should focus on getting trained on emerging new technologies.
- Companies should invest on tools & platforms that integrate with No-SQL databases.
- Should migrate to cloud databases as it is expected to increase in years.

## **DASHBOARD**



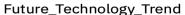
https://github.com/vippasoumya/Capstone\_Dashboard/blob/main/IBM\_Capstone\_Project.pdf

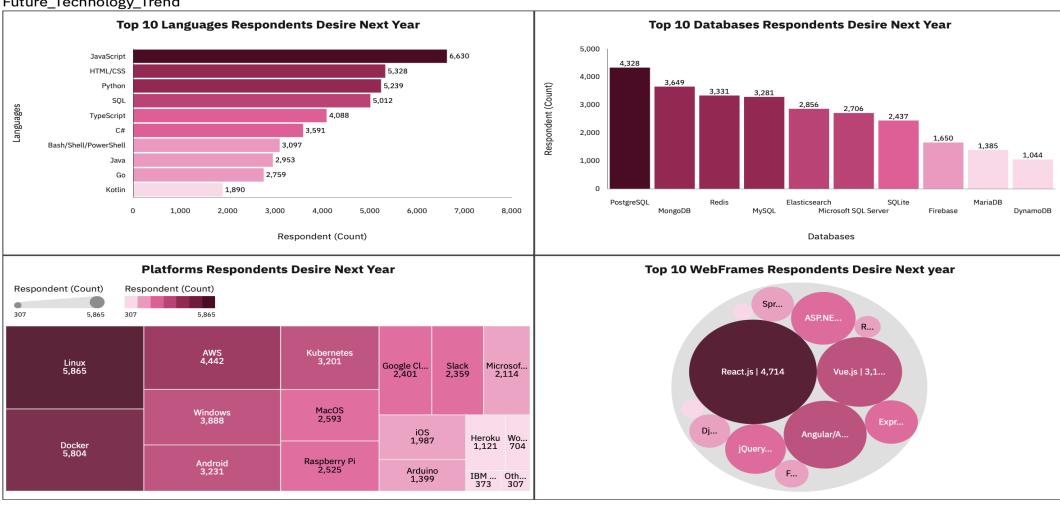
## **DASHBOARD TAB 1**



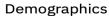


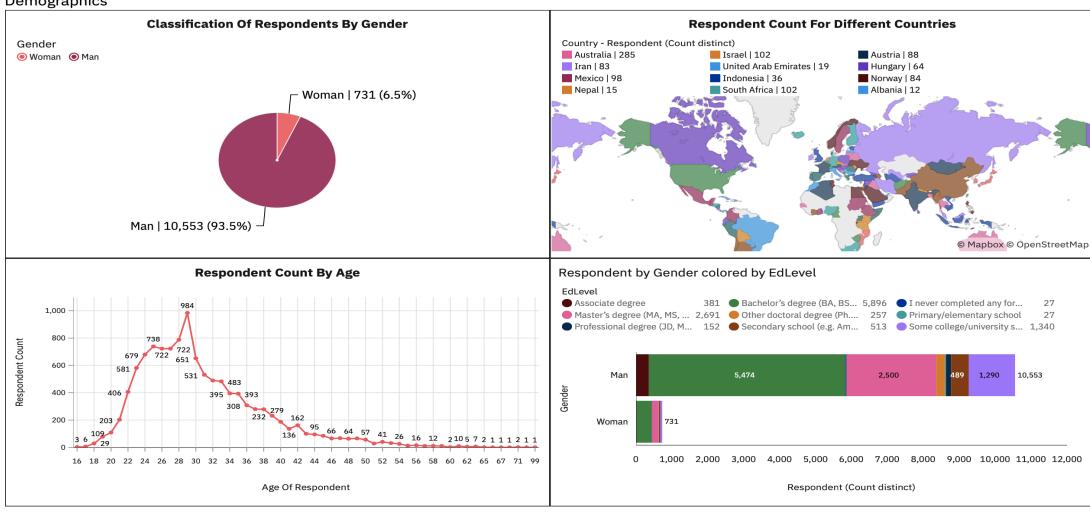
### DASHBOARD TAB 2





### **DASHBOARD TAB 3**





## **DISCUSSION**



- Reskilling Workers
- Adapting New Technologies
- Expertise In Relevant Frameworks
- Gender Diversity
- Networking & Continuous Learning

### **OVERALL FINDINGS & IMPLICATIONS**

### **Findings**

- Python & JavaScript dominate while Go & Kotlin show growing interest.
- Relational databases remain widely used but NoSQL databases are increasing rapidly.
- AWS, Google Cloud & Azure platforms are gaining popularity.
- React & Angular are widely used but Vue.js & Django are seeing growth.
- Diverse Range in terms of Age, Gender and Countries

### **Implications**

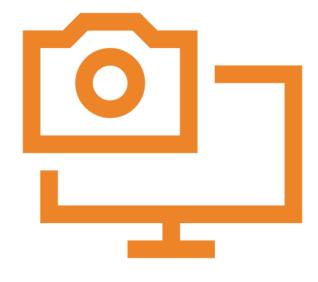
- Focus on training the developers with emerging new languages.
- Adopting the NoSQL databases to remain competitive.
- Stay up to date with the latest platforms and technologies.
- Usage of modern web frameworks for building efficient applications.
- Increase the Gender and demographic diversity.

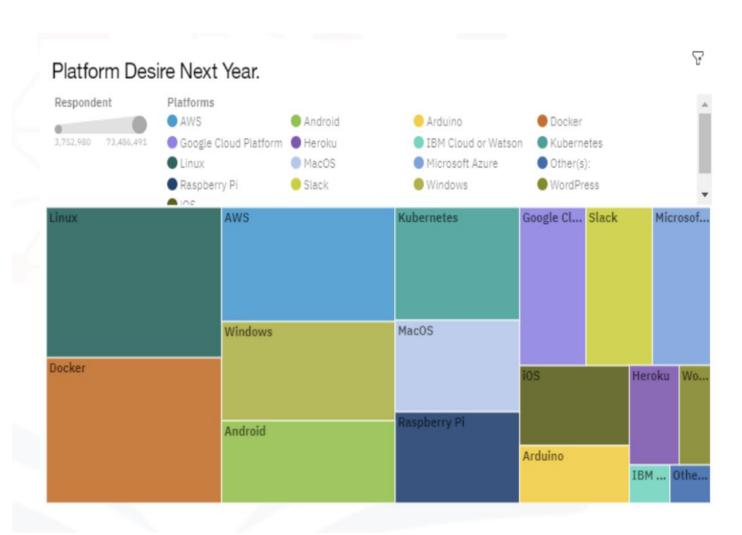
### **CONCLUSION**



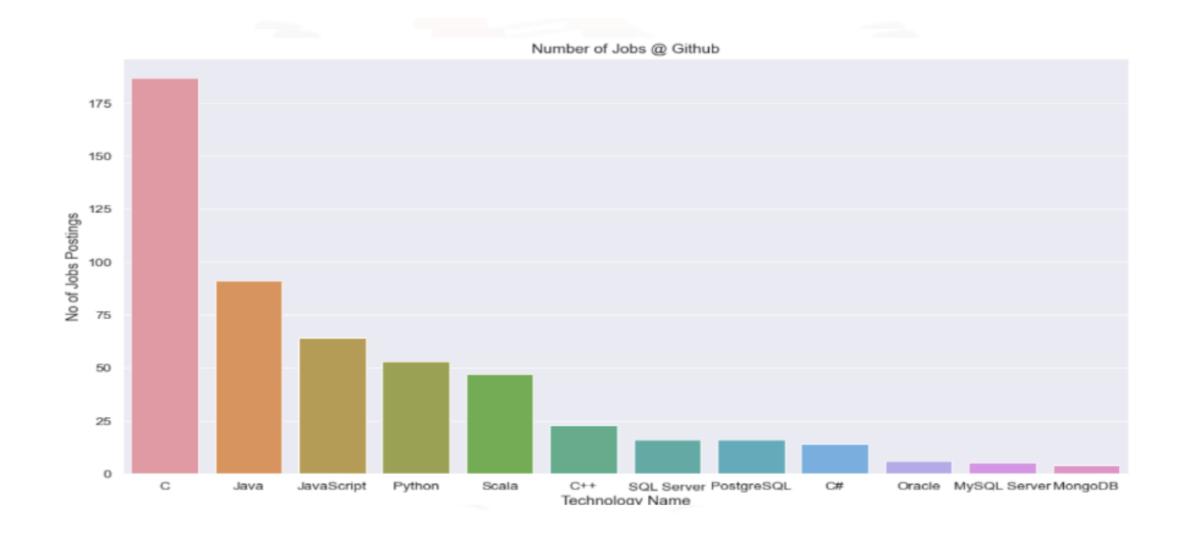
- Emerging Technology Trends
- Collaborate with Leading Technologies
- Leverage Leading Platforms
- Keep Evolving with Technological Advancements.
- Prepare For the Future
- Increasing the Gender & Geographic Diversity.

## **APPENDIX**





# **JOB POSTINGS**



# **POPULAR LANGUAGES**

