

# Upcoming Technologies

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## OUTLINE



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- Introduction
- Methodology
- Results
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  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
- Appendix

## **EXECUTIVE SUMMARY**



#### Programming Languages

- Current year
- Desired next year

#### Database

- Current year
- Desired next year

#### WebFrame

- Current year
- Desired next year

#### • Platforms

- Current year
- Desired next year

## INTRODUCTION



#### About the Dataset:

Stack Overflow, a popular website for developers, conducted an online survey of software professionals across the world. The survey data was later open sourced by Stack Overflow. The actual data set has around 90,000 responses.

#### Columns:

Respondent

LanguageWorkedWith

LanguageDesireNextYear

DatabaseWorkedWith

DatabaseDesireNextYear

PlatformWorkedWith

PlatformDesireNextYear

WebFrameWorkedWith

WebFrameDesireNextYear

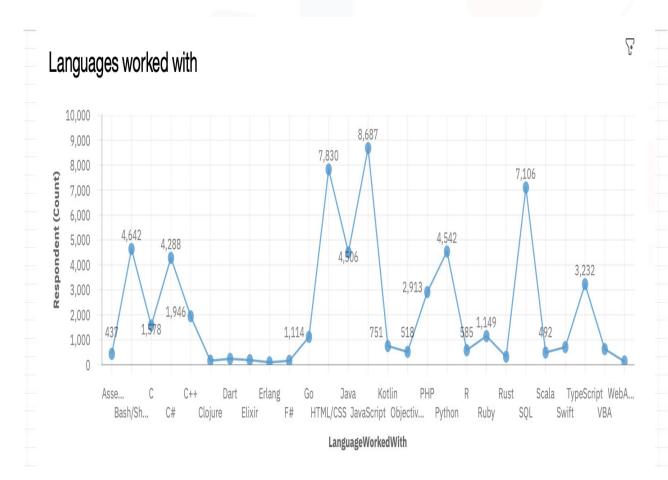
## **METHODOLOGY**

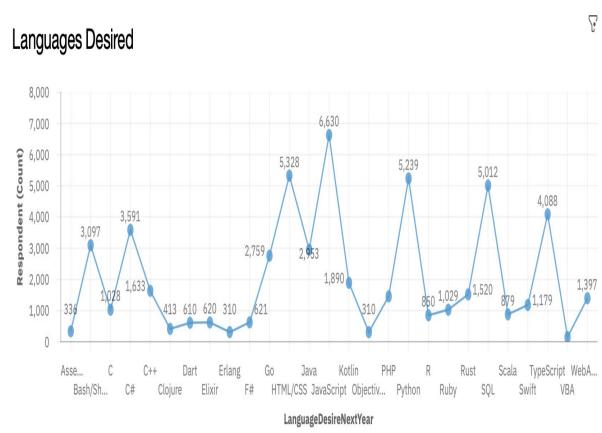


- Import and Clean the Dataset
- Check for outliers
- Remove outliers and update the Dataset
- Plot graphs for current and next year for different parameters:
  - Database
  - Programming Languages
  - Platforms
  - Web Frameworks

## **RESULTS**

#### **Programming Languages:**



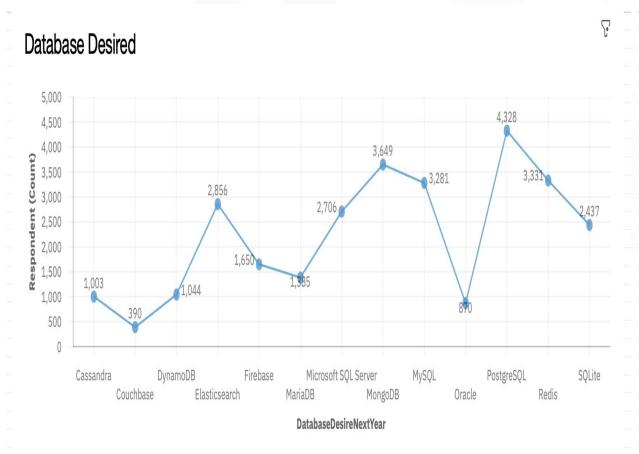


**IBM Developer** 

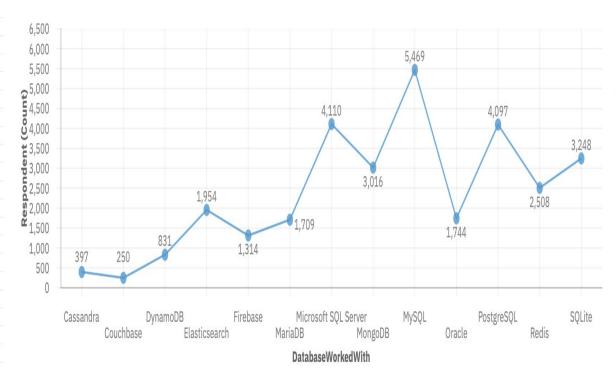
SKILLS NETWORK

## **RESULTS**

#### Database:





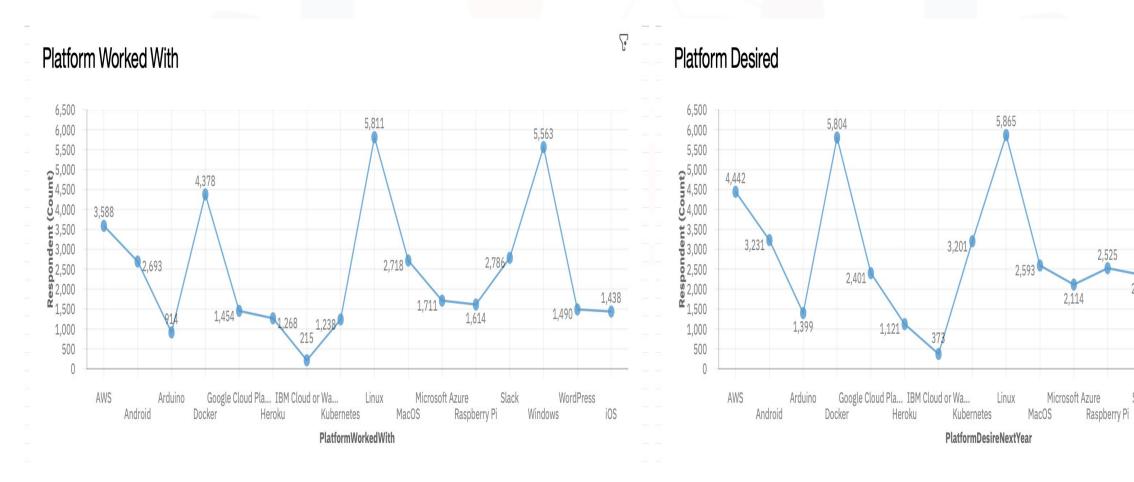






## **RESULTS**

#### Platform:



IBM Developer

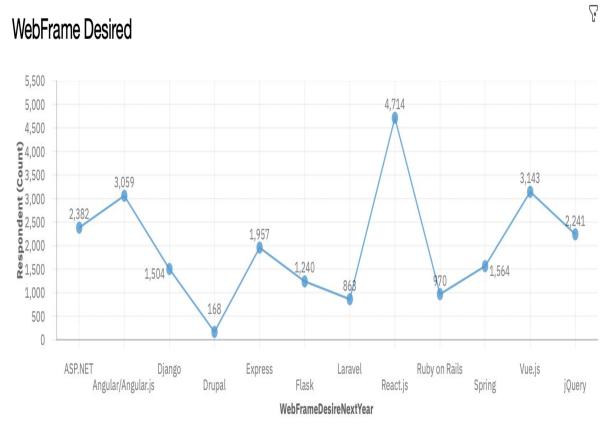
SKILLS NETWORK

3,888

WordPress

## RESULTS WebFrame Work





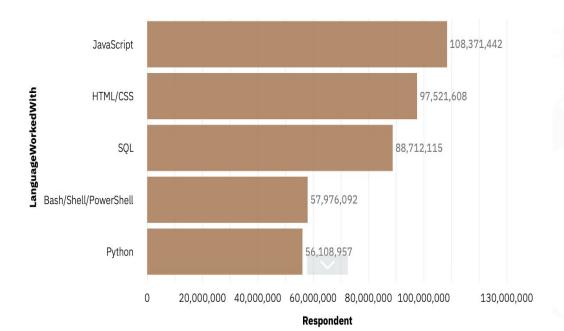




## PROGRAMMING LANGUAGE TRENDS

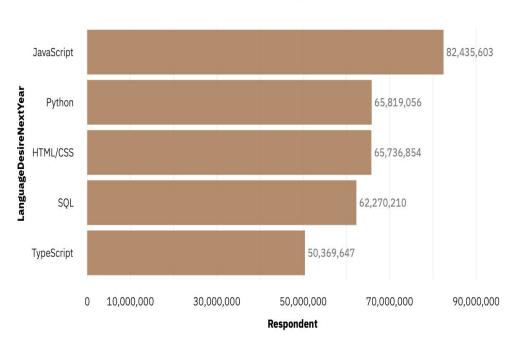
**Current Year** 

Current Year - Top 5 Programming Languages Worked With



#### **Next Year**

Next Year - Top 5 Programming languages Desired



5

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

#### **Findings**

- JavaScript remains the top language the current year and also the most desired language in the coming year
- Python scales up to the second position in desired languages from fifth position in top languages this year

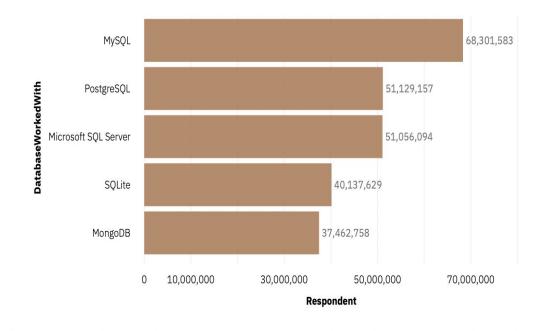
#### **Implications**

- JavaScript will remain in the top languages for the coming year also
- The demand and popularity of python has increased significantly

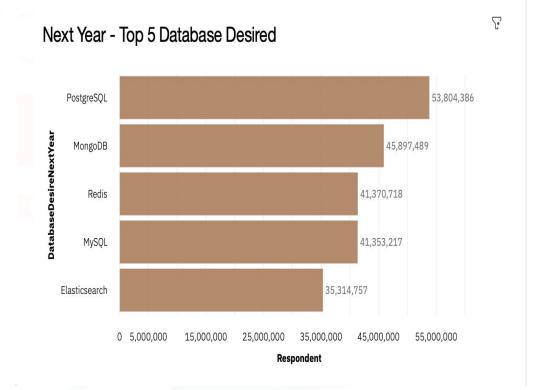
## DATABASE TRENDS

#### **Current Year**

#### Current Year - Top 5 Database Worked With



#### **Next Year**



## DATABASE TRENDS - FINDINGS & **IMPLICATIONS**

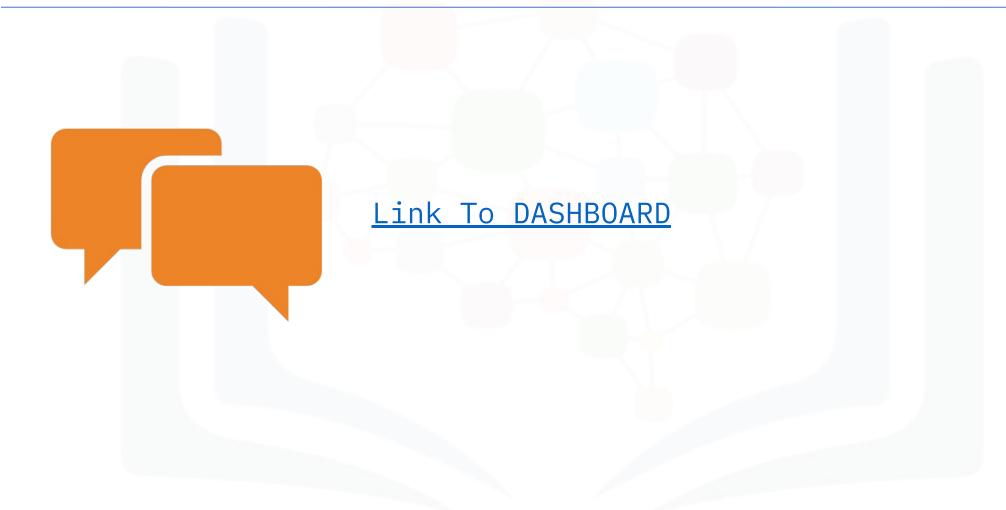
#### **Findings**

- PostgreSQL remains in the top five for both this year and next year
- MongoDB scales up to second position in the coming year

#### **Implications**

- PostgreSQL is one of the top and most popular database application
- Significant rise in popularity of MongoDB

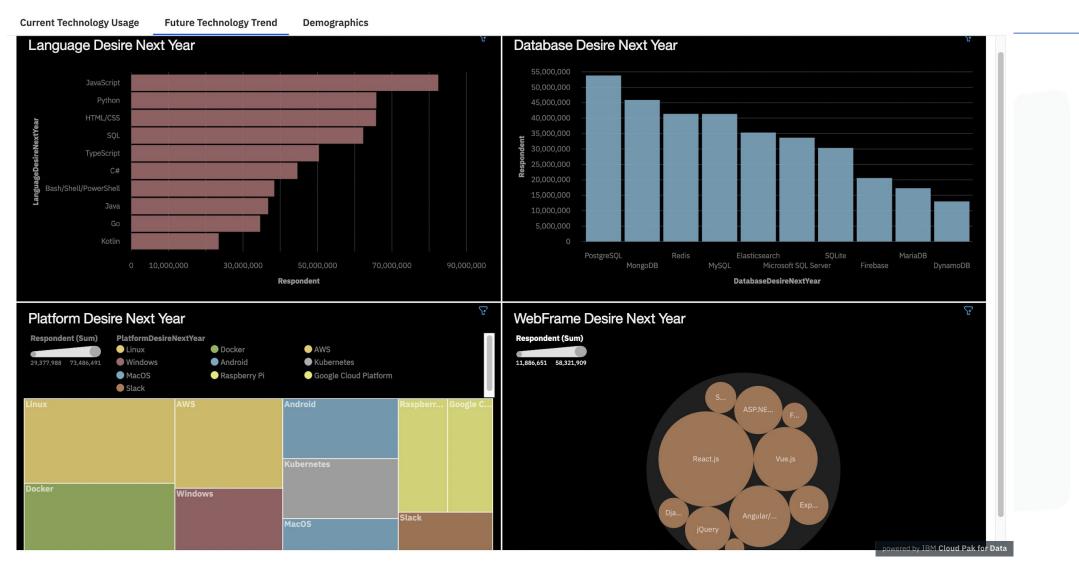
## **DASHBOARD**



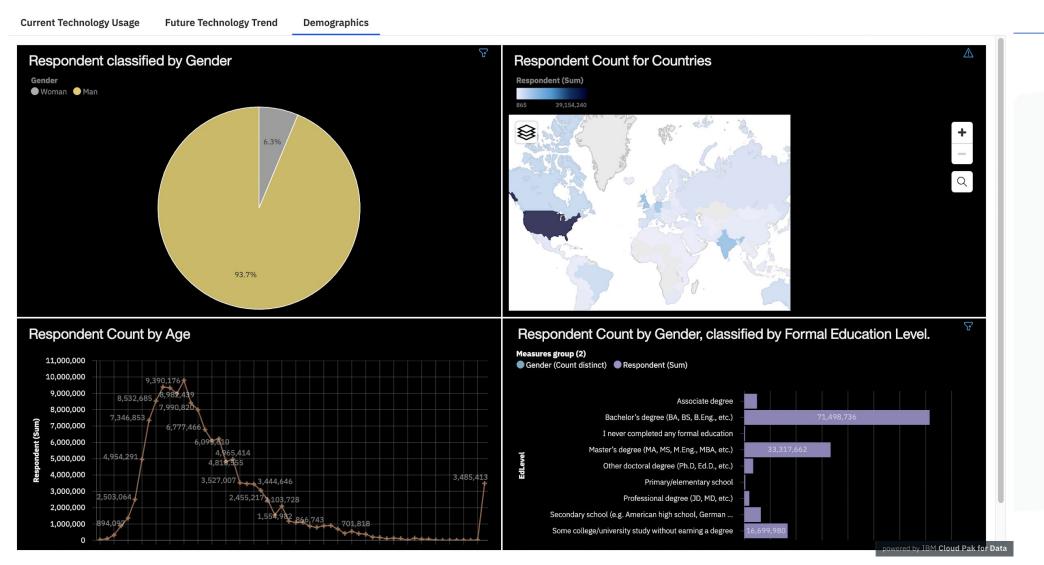
## DASHBOARD TAB 1

**Current Technology Usage Future Technology Trend** Demographics Database worked with Languages worked with 90,000,000 108,371,442 JavaScript 80,000,000 HTML/CSS 88,712,115 SQL Bash/Shell/PowerShell 57,976,092 60,000,000 50,000,000 6.108.957 Python 40,000,000 55,836,723 Java 53,376,993 C# 30,000,000 TypeScript 20,000,000 PHP 36,438,296 10,000,000 24,456,246 C++ Microsoft SQL Server MongoDB MariaDB 180,000,000 Firebase Platform worked with WebFrame worked with Linux
AWS WordPress
IBM Cloud or Watson & Google Cloud Platform Respondent (Sum) Kubernetes 11,517,716 57,310,840 ed by IBM Cloud Pak for Data

## DASHBOARD TAB 2



## DASHBOARD TAB 3







#### OVERALL FINDINGS & IMPLICATIONS

#### **Findings**

- JavaScript and Python remain in top 5 for both current and next year
- Leap in MongoDB from current to next year
- React.js sees a noticeable growth

#### **Implications**

The leading technologies for the following attributes are:

- Programming Language:
  - Python
  - Java
- •Database:
  - PostgreSQL
  - MongoDB
- WebFrame Works:
  - React.js

#### CONCLUSION



#### UPCOMING TECHNOLOGIES ARE:

Programming language: Python, JavaScript

Database: PostgreSQL, MongoDB

WebFrame Work: React.js

Platform: Linux

## POPULAR LANGUAGES

