



# Capstone Project

MUHLIS CM  
21/04/2021

# OUTLINE

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

# EXECUTIVE SUMMARY

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- Data Collection
- Data Wrangling
  - Removing Duplicates
  - Find & Impute missing values
  - Normalizing Data
- Explanatory Data Analysis (EDA)
- Data Visualization
- Building Dashboards

# INTRODUCTION

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- It's a valuable effort to find the most popular programming language and database
- Which country contribute more to survey
- Best platform for technical works
- Most used and desired web frameworks
- The participation of educated people in survey
  - Contribution based on the gender

# METHODOLOGY

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- Data collected from
- git hub job posting using github api
- m5\_survey\_data\_demographics dataset
- m5\_survey\_data\_technologies
- Python is used for data analysis, wrangling and visualization
- Dash boards are created using Congnos Analytics

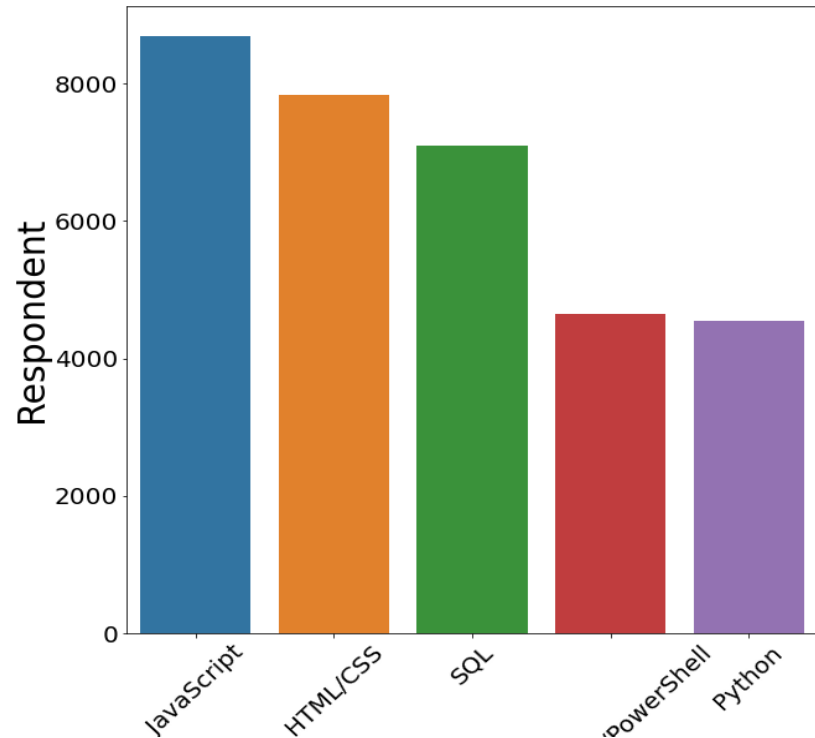
# RESULTS

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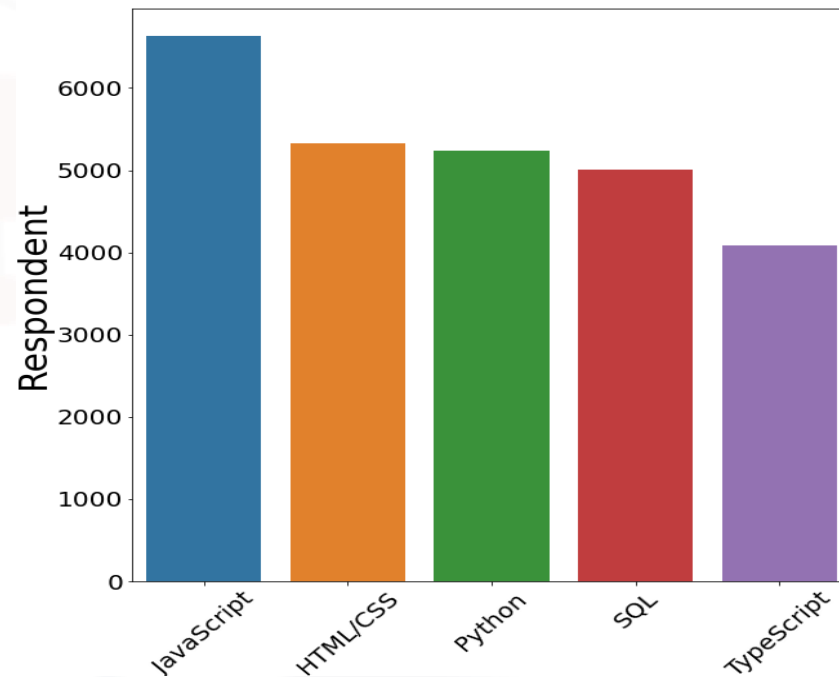


# PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Python improved rank
- Sql lost 1 position
- Java script and Html/ Css lead in two studies

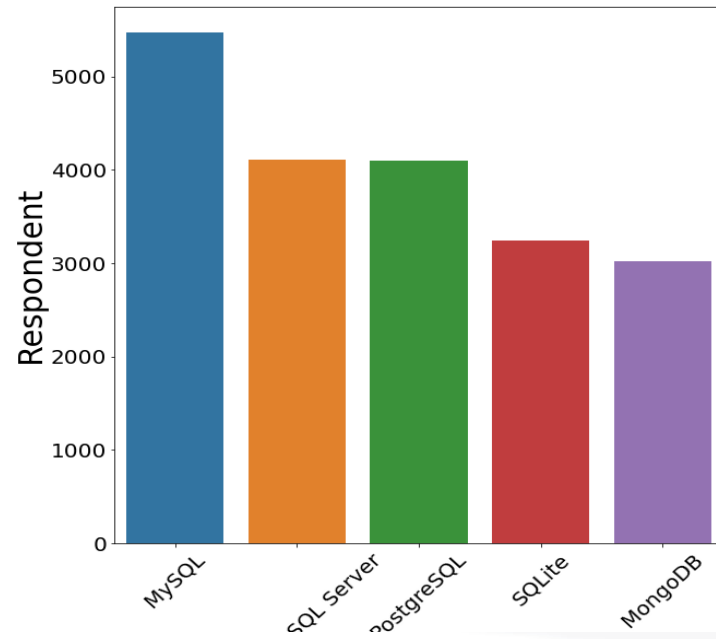
## Implications

- Python jumped to 3 from 5
- Type Script is more popular than c, java, C++
- Python has potential to overcome other language in coming years

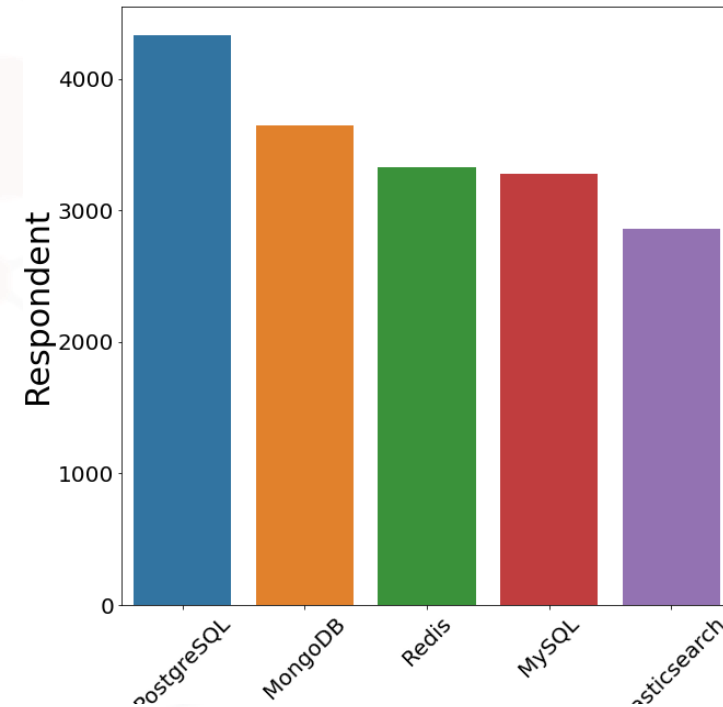


# DATABASE TRENDS

Current Year



Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Current Year

- MySql is most sought after
- SQL in 2nd and 3rd position
- Sqlite and mangodb is in first 5

## Future Trend

- Postgresql is leading
- MySql dropped to 4
- Mango db jumped to 2 and sqlite and Microsoft sql server are out of the top 5

# DASHBOARD

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<https://eu-gb.dataplatform.cloud.ibm.com/dashboards/4dd8e585-435b-485f-86df-05ce0722f39c/view/4704f60e3ea008c468c8f6e4079e79057a35200eb2bbd20486817b495e647297f06a4690c82d4d5edd455361f2bd445cc1>

# DASHBOARD TAB 1

## Top 10 Language Worked With

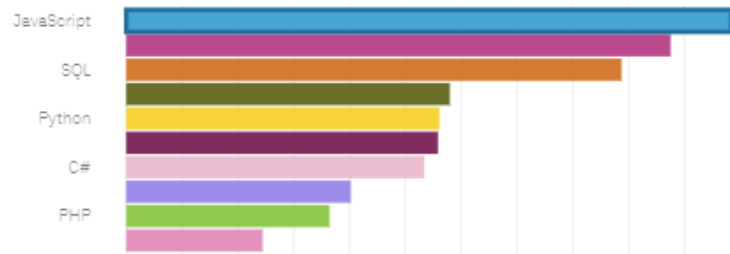
LanguageWorkedWith

● Bash/Shell/PowerShell

● C#

● C++

● HTML/CSS



## Top 10 Database Worked With

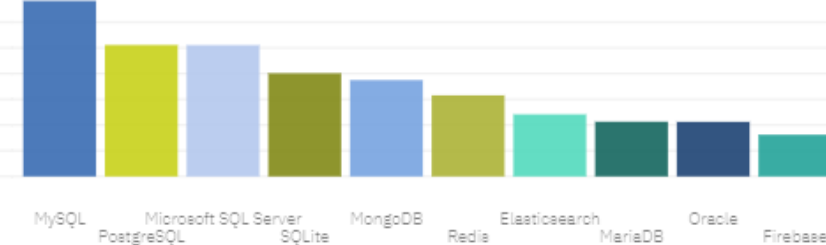
DatabaseWorkedWith

● Elasticsearch

● Firebase

● MariaDB

● Microsoft SQL Server



## Platform Worked With



## Top 10 Web Frame Worked With

Respondent (Sum)



WebFrameWorkedWith

● ASP.NET

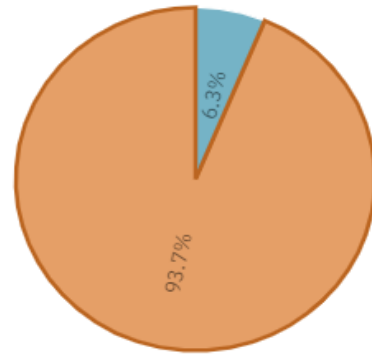
● Angular/Angular.js



# DASHBOARD TAB 3

## Respondent classified by Gender

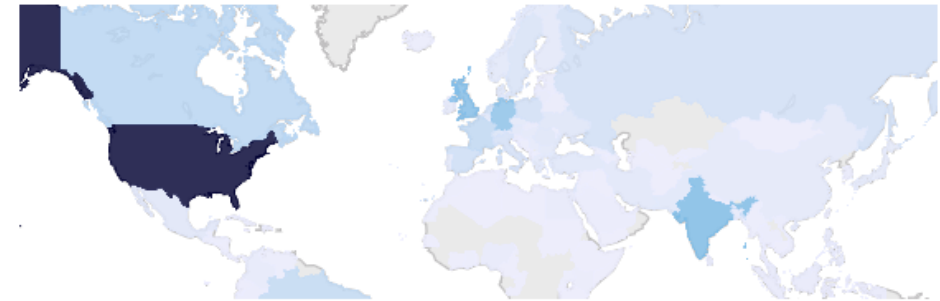
● Woman ● Man



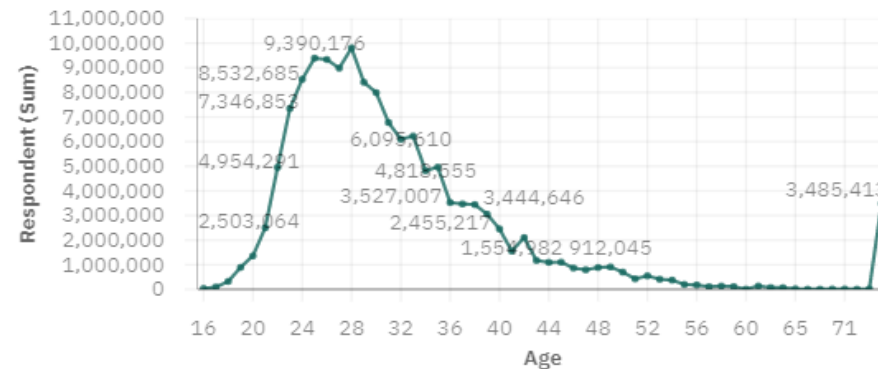
## Respondent Count for Countries

Respondent (Sum)

865 39,154,240



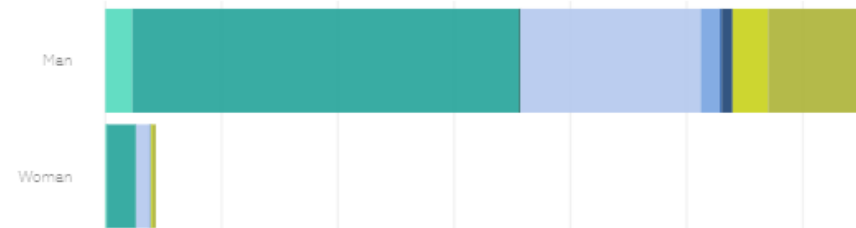
## Respondent Count by Age



## Respondent Count by Gender, classified by Formal Education Level

EdLevel

● Associate degree ● Bachelor's degree (BA, BS, B.E...  
● I never completed any formal ... ● Master's degree (MA, MS, M.E...



# DISCUSSION

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- In this project, intention is to find more popular language, data base, respondents age, country, favorite plate form , web frame work and cotribution by the gender of respondent, education deails, average age, the most desired programming language and data base in coming years

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Java script is the most used and desired language
- MySql is the most used data base
- Postgrel sql in the data base which more people want to learn

## Implications

- Most of the Responders are Male
- Average age of the most responders lies between 20 and 40
- United States are the major Contributor to survey with 39,154,240 responders

# CONCLUSION

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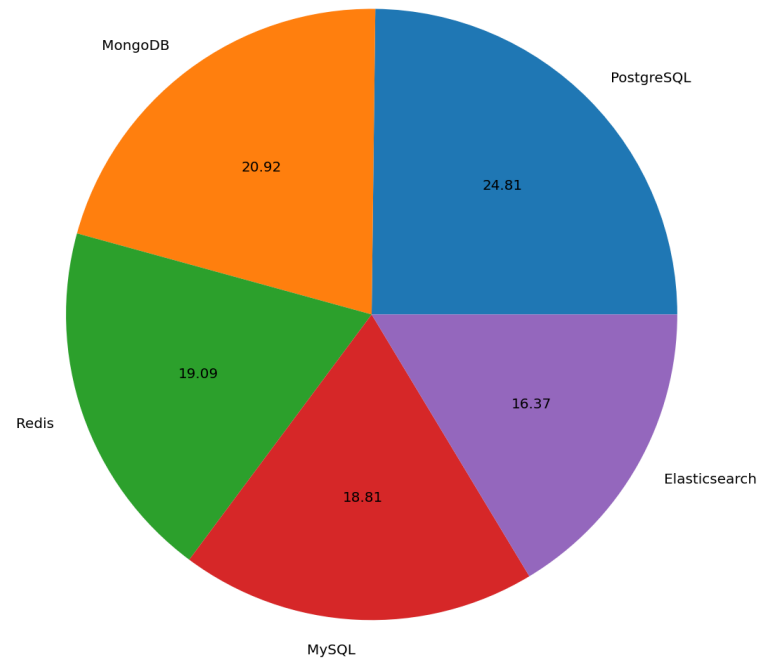
- Python become more popular in recent years, that's why more people want to learn python
- Contribution from females are less
- USA cotributes more respondents, because of the large number of It companies the have
- Linux is the most Sought after platform and people want to stick with it



# APPENDIX

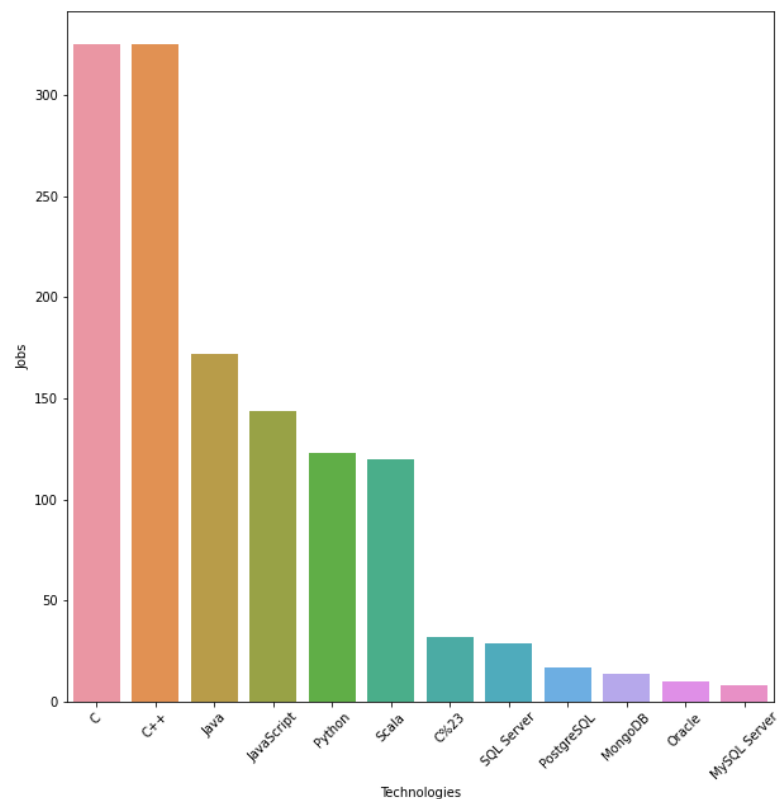
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- Pie Chart for more desired Data bases.



# GITHUB JOB POSTINGS

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# POPULAR LANGUAGES

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