



# Stack Overflow Developer Survey-2019 Finding & Implication

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- **Current Technology Usage**

- Top 10 Languages
- Top 10 Databases
- Platforms
- Top 10 Web Frames

- **Future Technology Trends**

- Top 10 Languages desired for the next year
- Top 10 Databases desired for the next year
- Desired platforms for the next year
- Top 10 Web Frames desired for the next year

- **Demographics**

- Respondent classified by gender
- Respondent count for countries
- Respondent count by age
- Respondent count by gender and classified by education level

# INTRODUCTION

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- The top programming language in demand
- The top databases skills in demand
- The popular IDEs
- Correlation Between numerical data
- Scraping internet web sites and accessing APIs to collect data.

# METHODOLOGY

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- Collecting Data Using APIs.
  - The GitHub Jobs API allows us to search and view jobs with JSON over HTTP.
  - GitHub Jobs API allows anyone to query for the job based upon:
    - Technology like Python, MySQL
    - City like New York, Bangalore
- Collecting Data Using Web scraping.

# RESULTS: GENDER, AGE & SALARY

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- The respondents had a median age of 29 and median annual salary of US\$52,704.
- There is a high gender gap between the men and women respondents (93.5% of men vs. 6.5% of women).
- However, the median salary of women (US\$54,956) is slightly higher than men (US\$52,339).
- Age and annual USD salary were positively correlated ( $r = 0.40$ ).
- The regplot showed that the increase in age will follow by the rise in the median annual USD salary.

# PROGRAMMING LANGUAGE TRENDS

Current Year

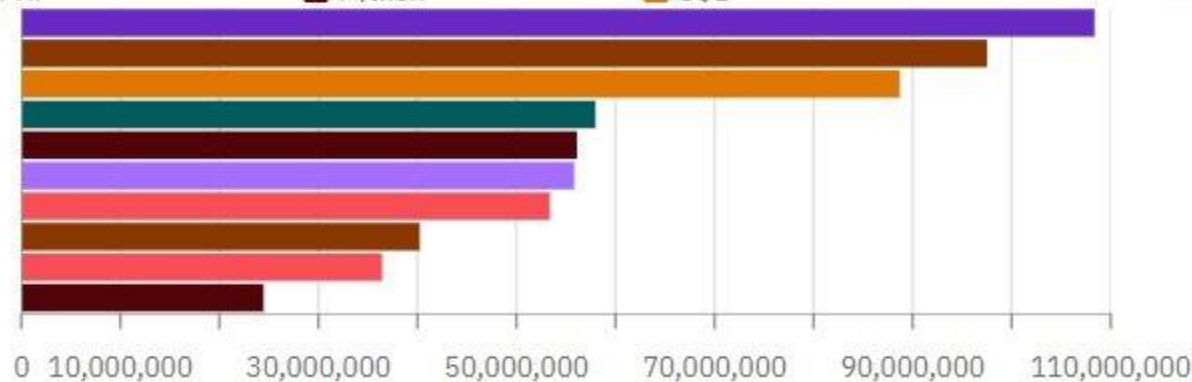
Top 10 Language Worked With

Top 10 Language Worked With

LanguageWorkedWith

Legend for Current Year:

- Bash/Shell/PowerShell
- HTML/CSS
- PHP
- C#
- Java
- Python
- C++
- JavaScript
- SQL



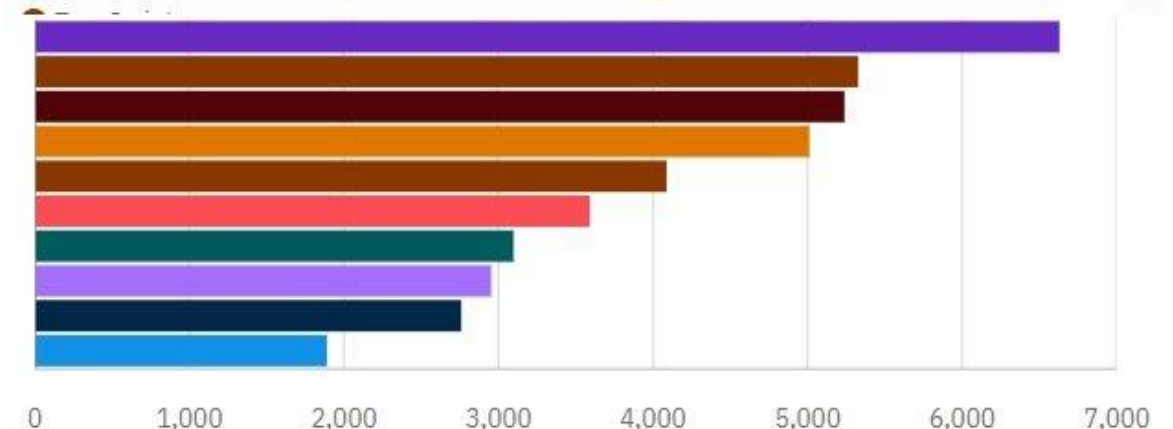
Next Year

Top 10 Language Desire Next Year.

LanguageDesireNextYear

Legend for Next Year:

- Bash/Shell/PowerShell
- HTML/CSS
- Kotlin
- C#
- Java
- Python
- Go
- JavaScript
- SQL



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is the most popular language to use in current and also in future.
- HTML/CSS is the second most popular language to use in current and also in future.
- Python has the rising trend.

## Implications

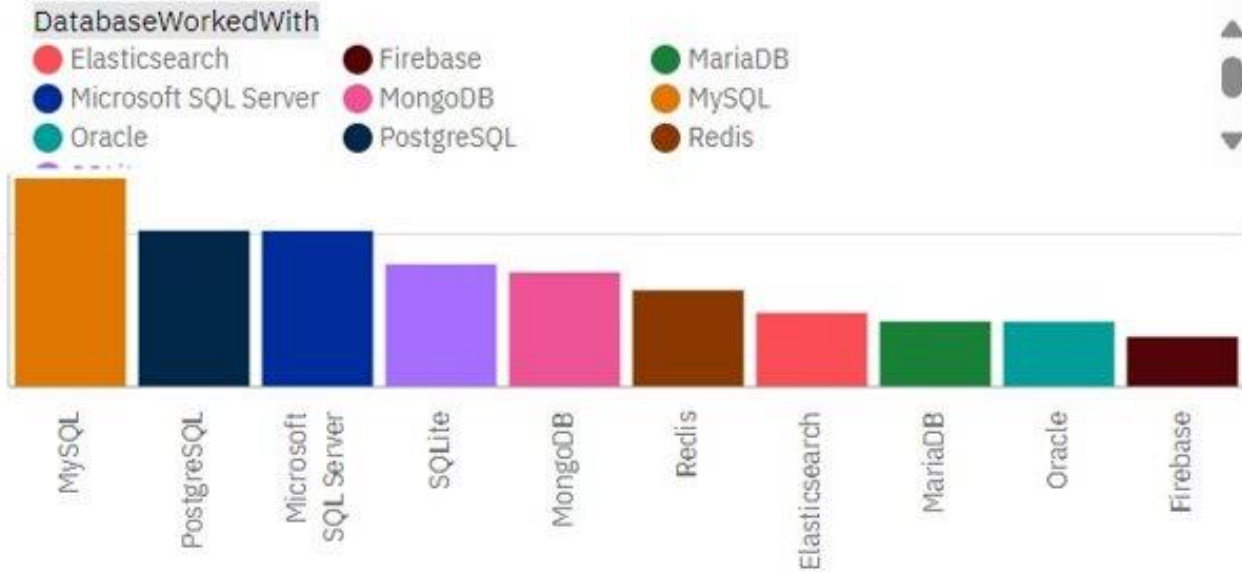
- JavaScript and HTML/CSS both have demand in current and future trend.
- Python is the new thread for near future and need to be focused on that.
- Java, c#, c++ have lost their momentum. People are looking for other languages apart from them.



# DATABASE TRENDS

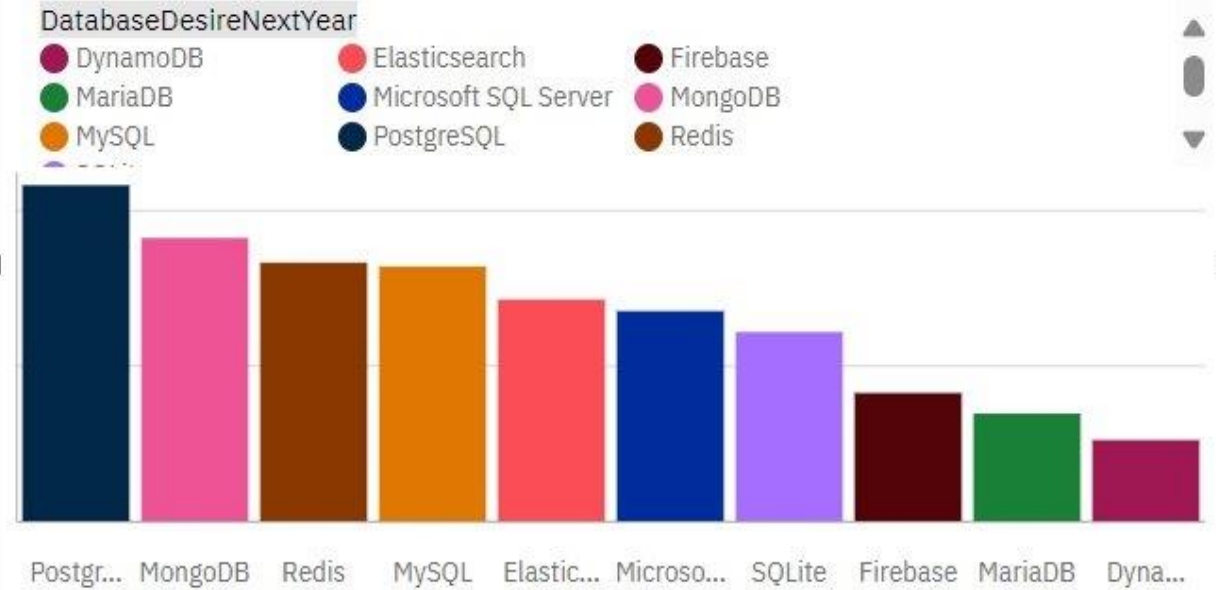
Current Year

Top 10 Database Worked With



Next Year

Top 10 Database Desire Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

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

## Implications

- People are highly interested to learn non-relational databases.
- It is clear that big data will become very popular in upcoming year.

# DASHBOARD

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<https://github.com/KumariPuja005/ideal-repo/blob/main/Capstone%20Project%20dashboard%20by%20Congo%20Analytics.pdf>

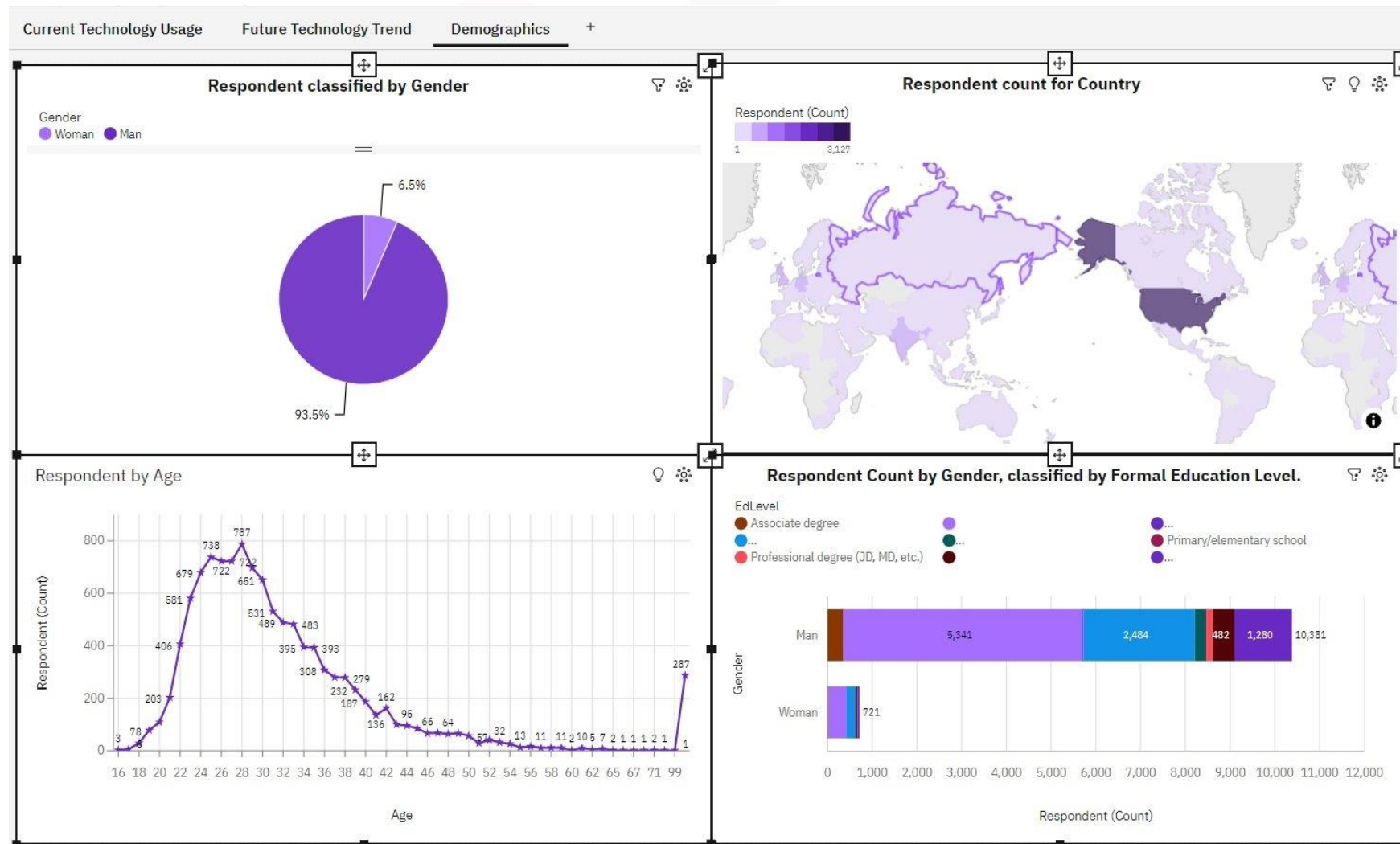
# DASHBOARD TAB 1



# DASHBOARD TAB 2



# DASHBOARD TAB 3



# DISCUSSION

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- It is clear from previous study that, the upcoming future us for big data so the knowledge on big data along with advanced programming languages will make the differences.



# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- The upcoming programming trend is for advanced programming languages.
- The upcoming trend for databases is non-relational databases.

## Implications

- People are looking for advanced programming languages along with easy learning.
- People are looking for big data cause data is everywhere.



# CONCLUSION

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- The top programming languages in demand.
- The top database skills in demand.
- The popular IDEs.
- Scraping internet web sites and accessing APIs to collect data.

# APPENDIX

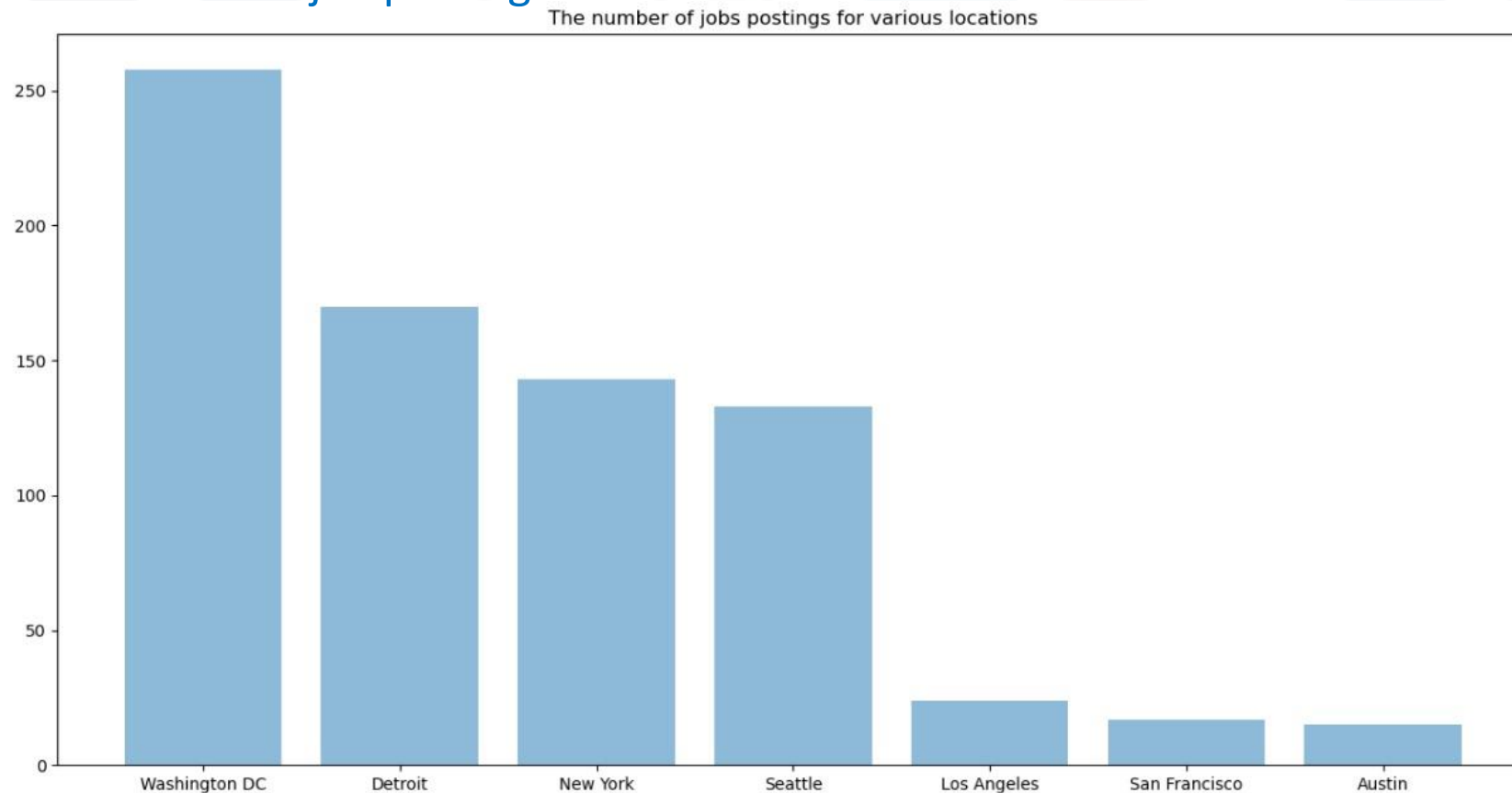
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- Include any relevant additional charts, or tables that you may have created during the analysis phase.

# JOB POSTINGS

In Module 1 you have collected the job posting data using Job API in a file named “job-postings.xlsx”. Present that data using a bar chart here. Order the bar chart in the descending order of the number of job postings.



# POPULAR LANGUAGES

In Module 1 you have collected the job postings data using web scraping in a file named “popular-languages.csv”. Present that data using a bar chart here. Order the bar chart in the descending order of salary.

