
# 2019 Stack Overflow Developer Survey

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# OUTLINE

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

# EXECUTIVE SUMMARY

- Data contextualization and analysis.
- Methodology description.
  - Data Gathering
  - Data Analysis
  - Data visualizations
- Results presentation (supported with graphs and trends.)
- Discussion of overall findings and implications.
- Final conclusions of the research.

# INTRODUCTION

- Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of programmers worldwide.
- The results do not represent the entire developer community.
- Nearly 90,000 developers participated.
- The survey identifies trends to predict the future direction of developers.
- It provides a characterization of developers around the globe.

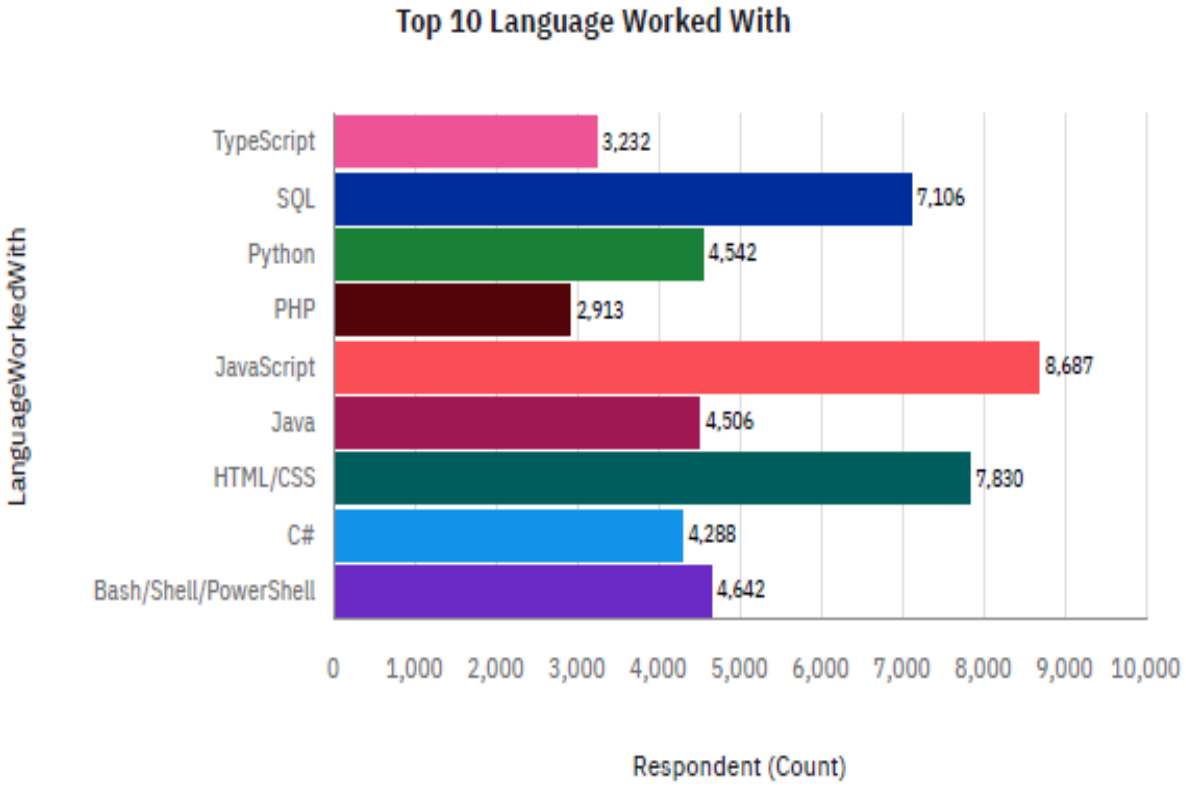
# METHODOLOGY

- Collect survey data & explore its content.
- Web Scraping
- APIs
- Request library
- Data Wrangling
- Exploratory Data Analysis
  - Analyzing data distribution
  - Handling outliers and Correlations
- Data Visualization.
  - Highlight distribution of data, relationships, the composition and comparison data.
- Dashboards.

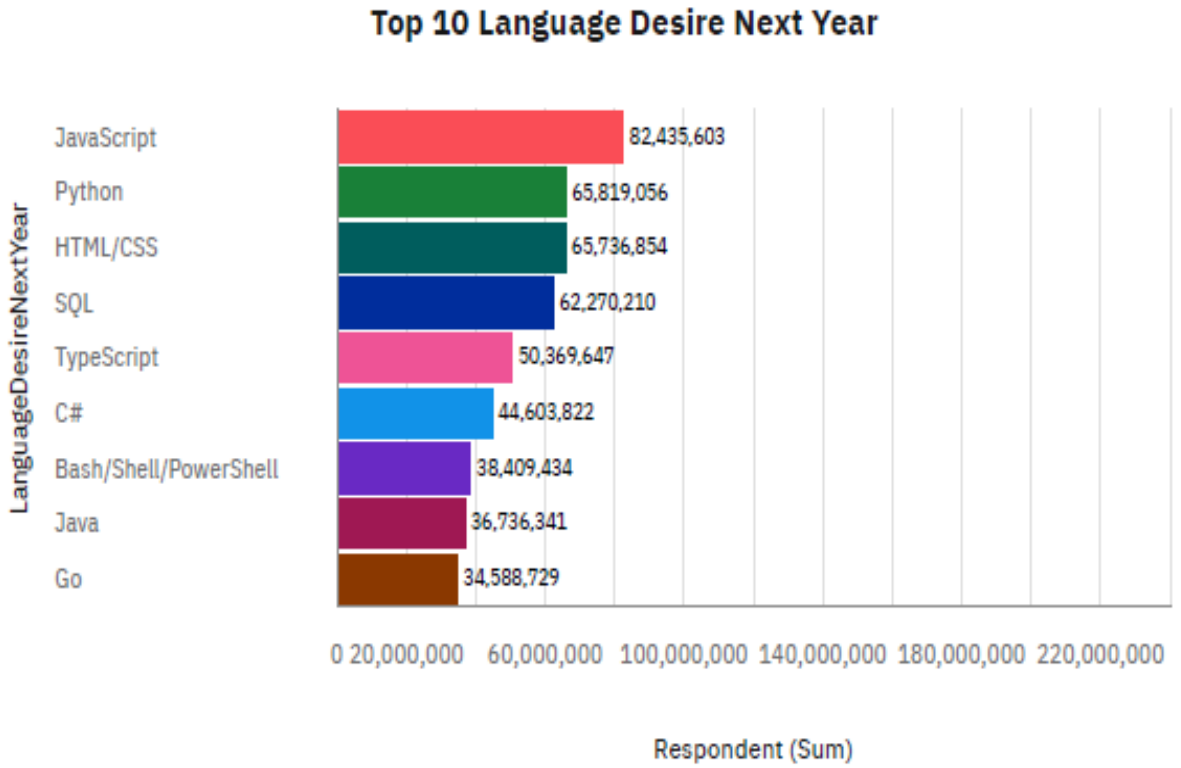
# RESULTS

# PROGRAMMING LANGUAGE TRENDS

## Current Year




## Next Year




IBM Developer

SKILLS NETWORK

# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

## Findings

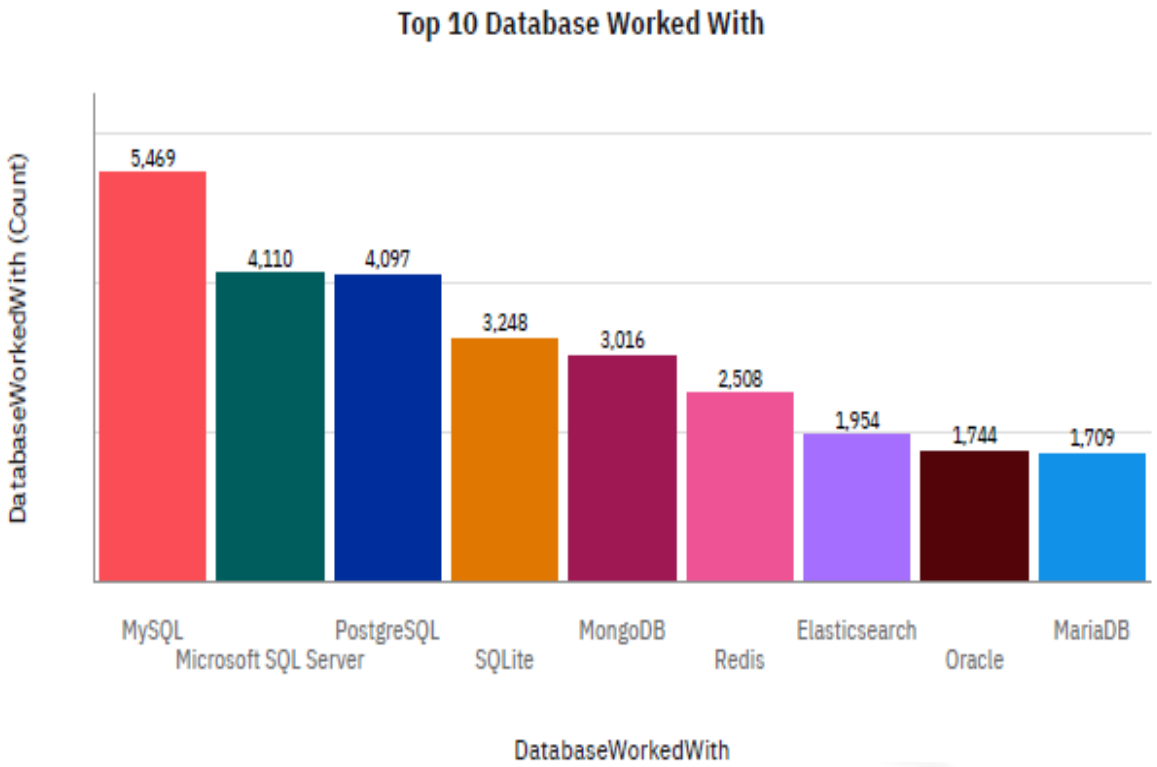
- JavaScript remains the leading language.
- Python is a close second as its becoming more popular.
- SQL is a tried-and-true language but isn't used as frequently as it once was.

## Implications

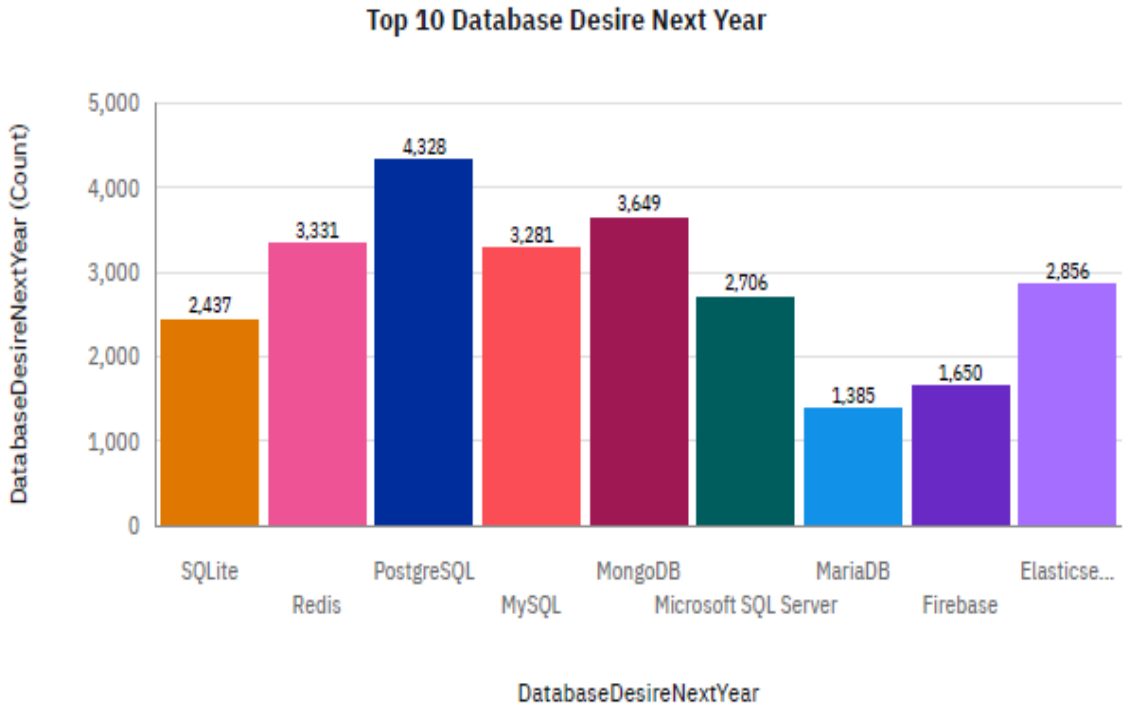
- Python has a simple programming syntax, efficient commands, and its own built-in libraries and applications. Because of this, and its fast-growing usage, it may eventually surpass JavaScript.

# DATABASE TRENDS

## Current Year




## Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

## Findings

- PostgreSQL is the most used database.
- Less interest in MySQL, SQLite, and Microsoft SQL Server.
- Increasing interest in MongoDB, as it's now the second most used database.

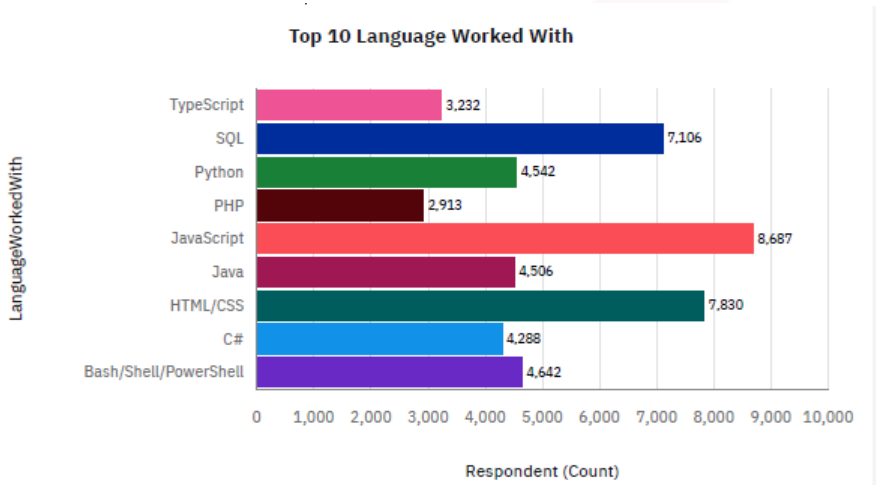
## Implications

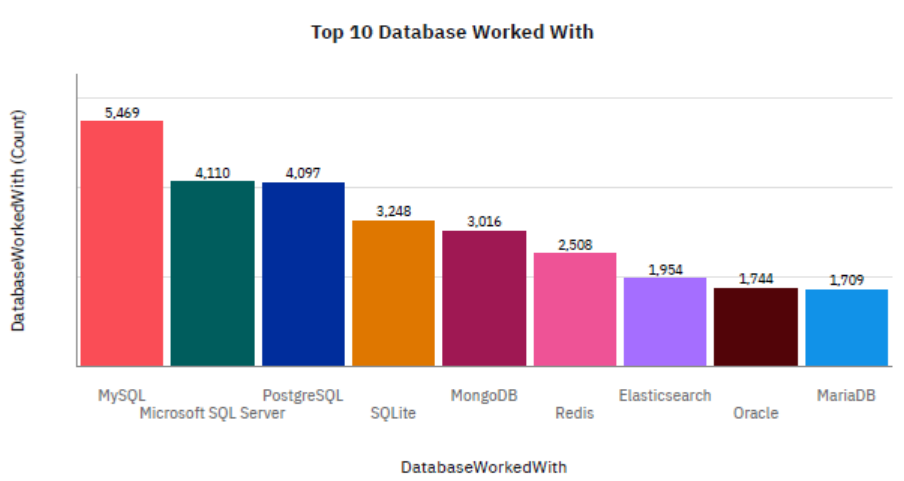
- PostgreSQL and MongoDB are becoming increasingly popular.
- Microsoft SQL, MySQL, and SQLite are losing market popularity.

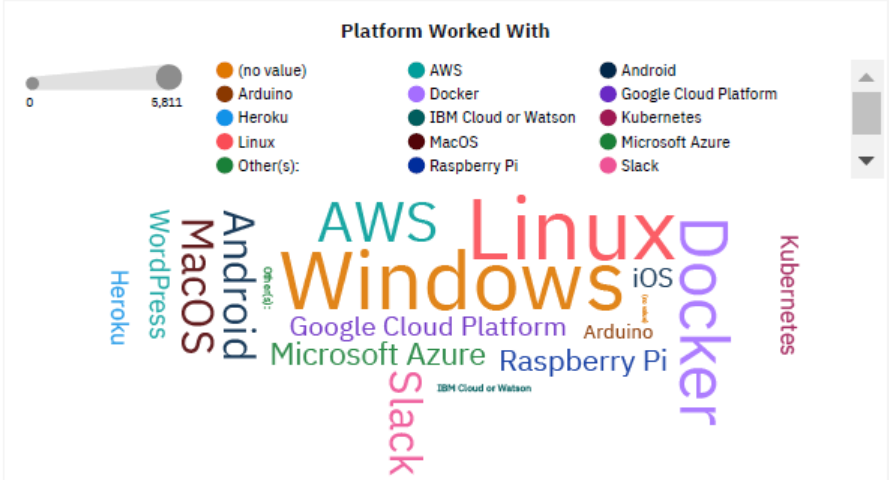
# DASHBOARD

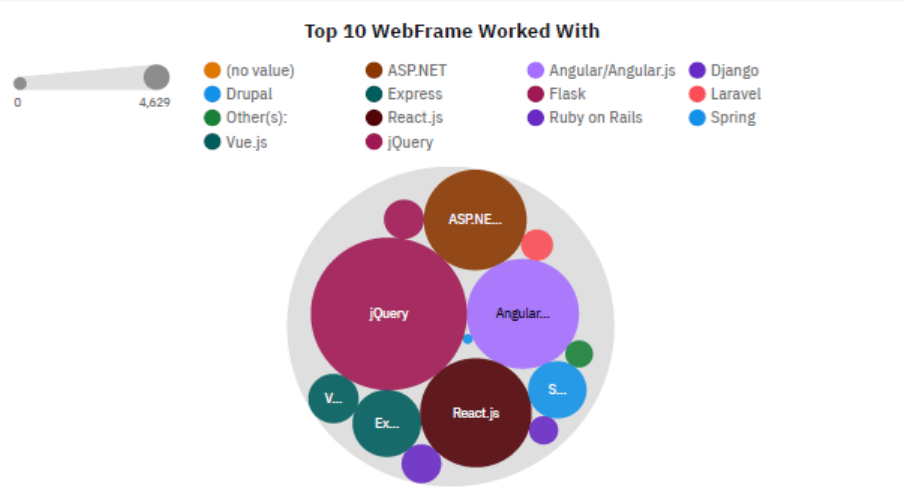
https://github.com/kayliemalone/capstone_project/blob/main/Dashboards%20-%20IBM%20Cognos%20-%20Project.pdf

# CURRENT TECHNOLOGY USAGE

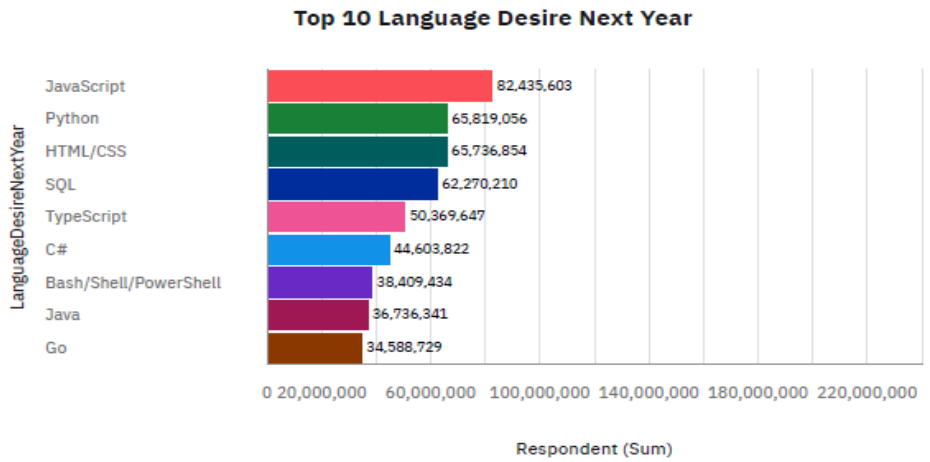


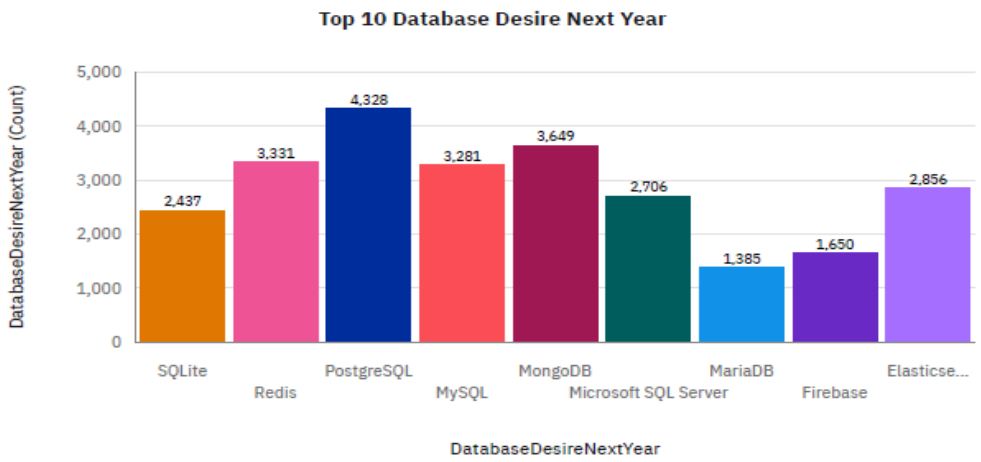



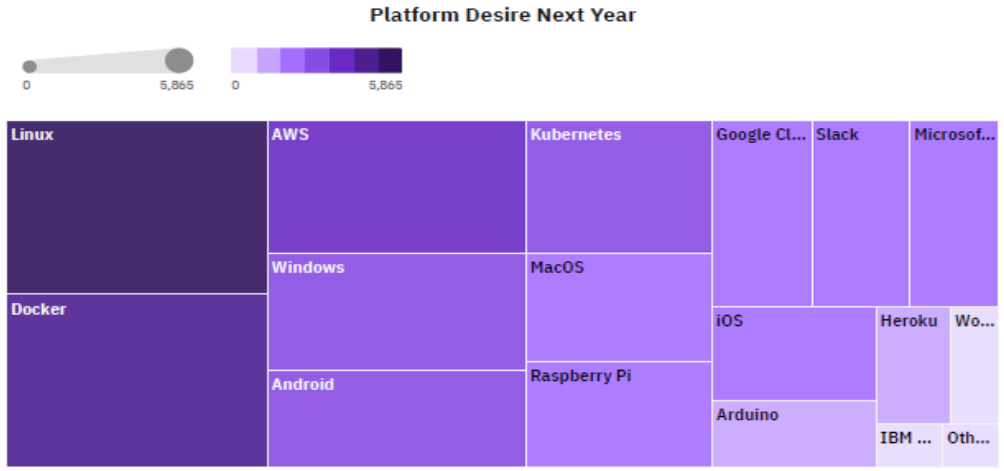



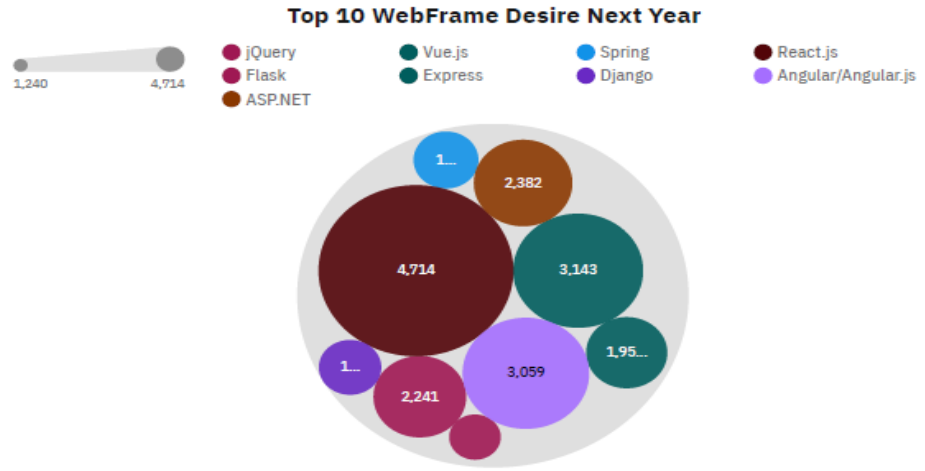



# FUTURE TECHNOLOGY TREND

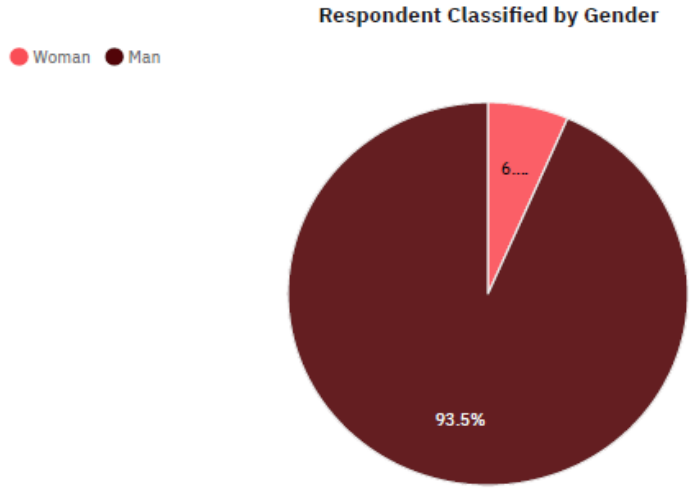


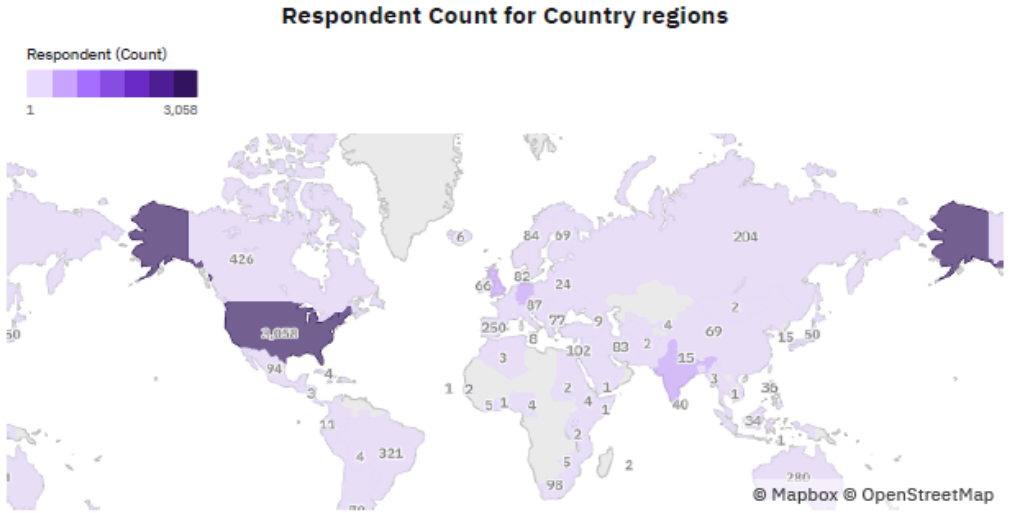



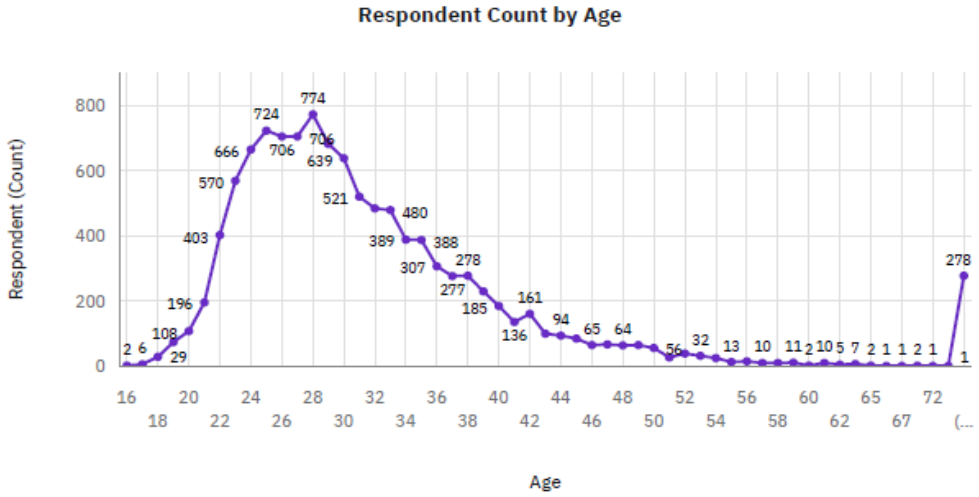



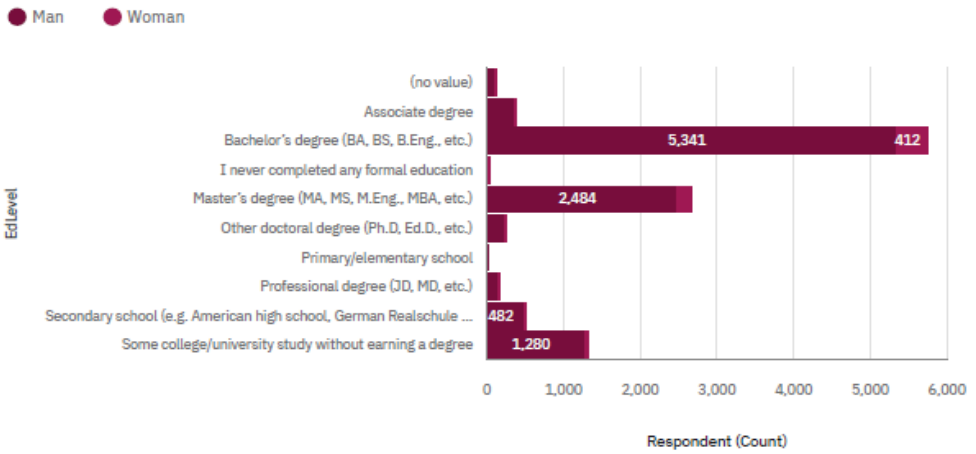



# DEMOGRAPHICS



# DISCUSSION

# OVERALL FINDINGS & IMPLICATIONS

## Findings

- JavaScript is the most used language.
- PostgreSQL and MongoDB are the top 2 most used databases.
- Over 90% of the developers are men.
- The majority live in the U.S. and have a Bachelor’s degree.

## Implications

- The use of Python is ever-growing, it may eventually surpass JavaScript.
- Microsoft SQL, MySQL, and SQLite are losing ground in the market.

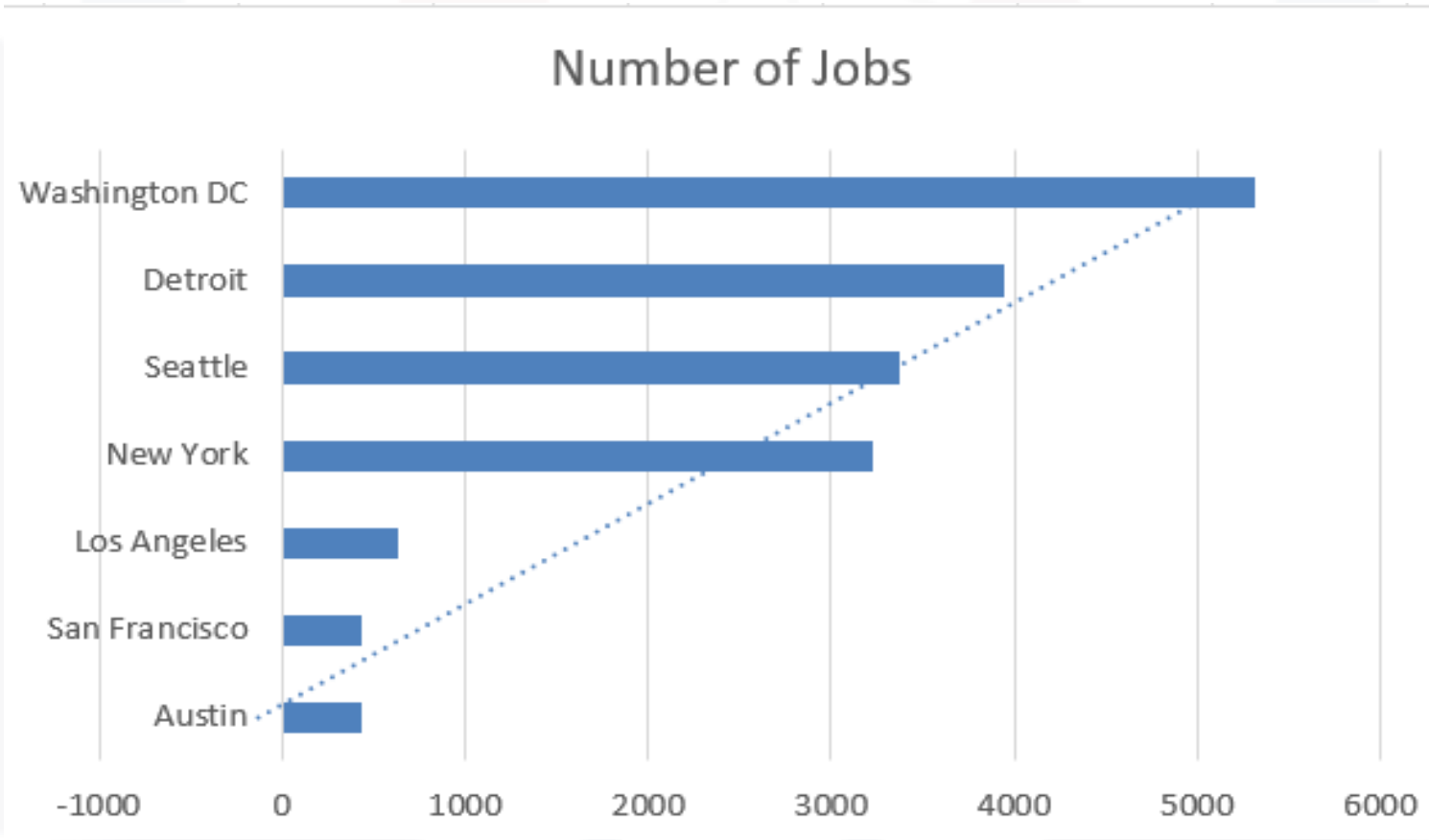
# CONCLUSION

- Developers possess distinct characteristics that set them apart.
- Understanding the popularity trends of various tools, platforms, and languages is crucial.
- Efforts are needed to increase accessibility to this labor market in developing countries.

# APPENDIX

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

# JOB POSTINGS



# POPULAR LANGUAGES