



# The Future of Development and Predictive Analytics

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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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- Trends in popular programming languages
- Survey Data of Demographics
- Technological gap in countries
- Gender gap in area of technology interests

# INTRODUCTION

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## About

Analyzing the trends in software development for IT solutions and highly experienced IT consultants.

## Main Purpose

1. What are the top programming languages in demand?
2. What are the top databases in demand?
3. What are the popular IDE's?

## Audience

Tech enthusiasts, IT specialist, Business leaders

# METHODOLOGY

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- Data Collection
  - Stack Overflow Developer 2019 Survey
  - GitHub Job Postings
  - Programming Languages Annual Salary
  - Can be done with APIs, Web Scraping, and Request Library
- Data Wrangling
- Exploratory Data Analysis
  - Analyzing data distributions
  - Handling outliers
  - Correlations
- Data Visualizations
- Dashboards

# RESULTS

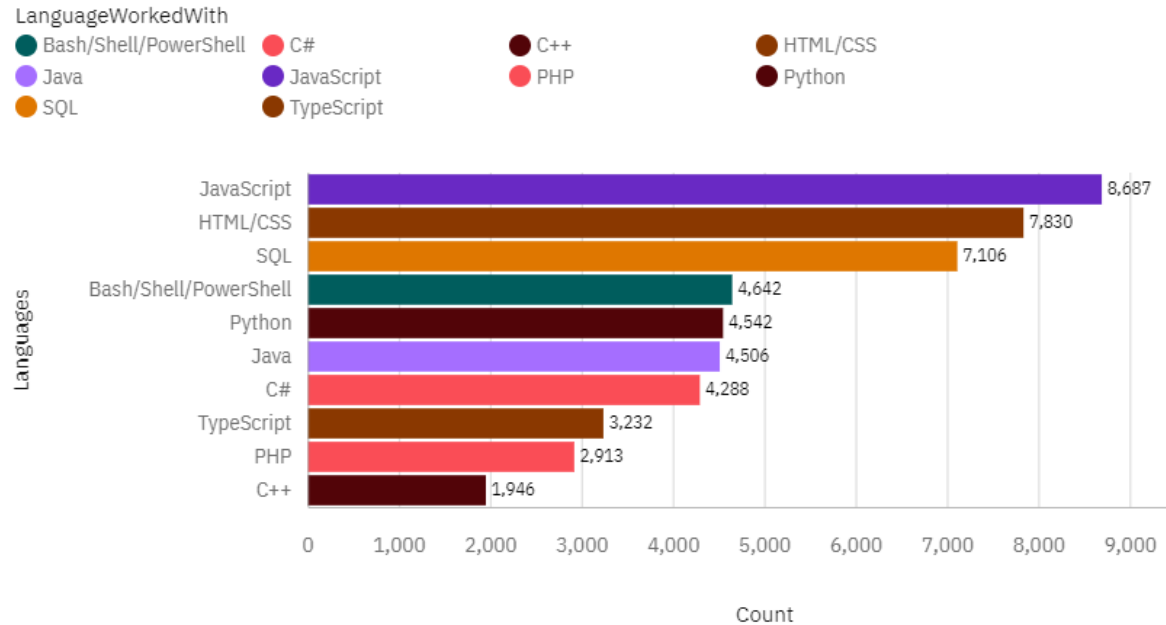
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The results will be displayed in story dashboards and graphs that are based on technology trends, databases, platform interactions, and frameworks for web development. This analysis will help determine the future skill requirements.

# PROGRAMMING LANGUAGE TRENDS

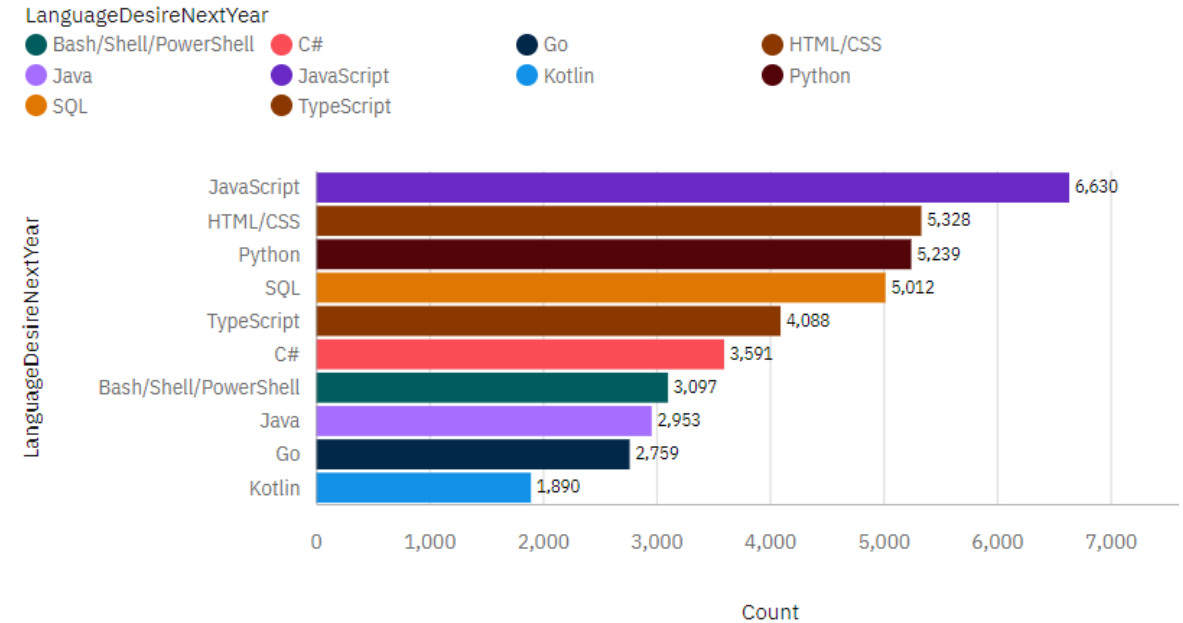
## Current Year

Top 10 Languages



## Next Year

Top 10 Language Desire Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript leads the top programming languages
- Python and TypeScript language keeps growing in pace
- HTML/CSS still considered to be the second lead in using web development language

## Implications

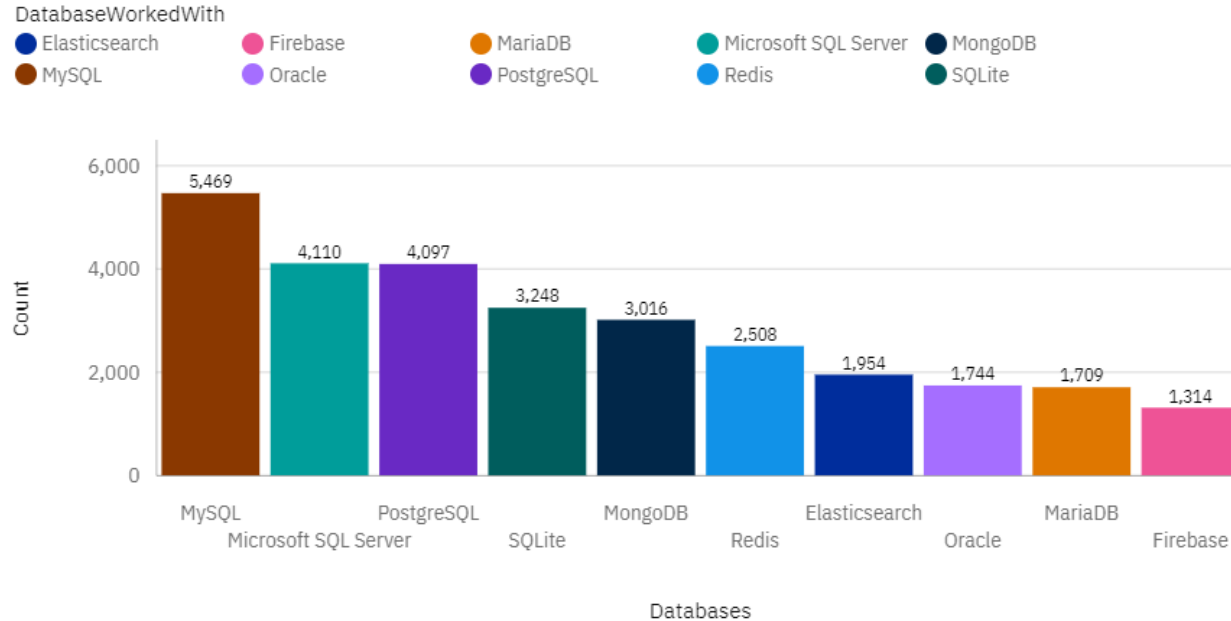
- Web Development are still in high demand
- Python leads the 3rd rank in programming trend languages
- Big Data technology in companies still require SQL



# DATABASE TRENDS

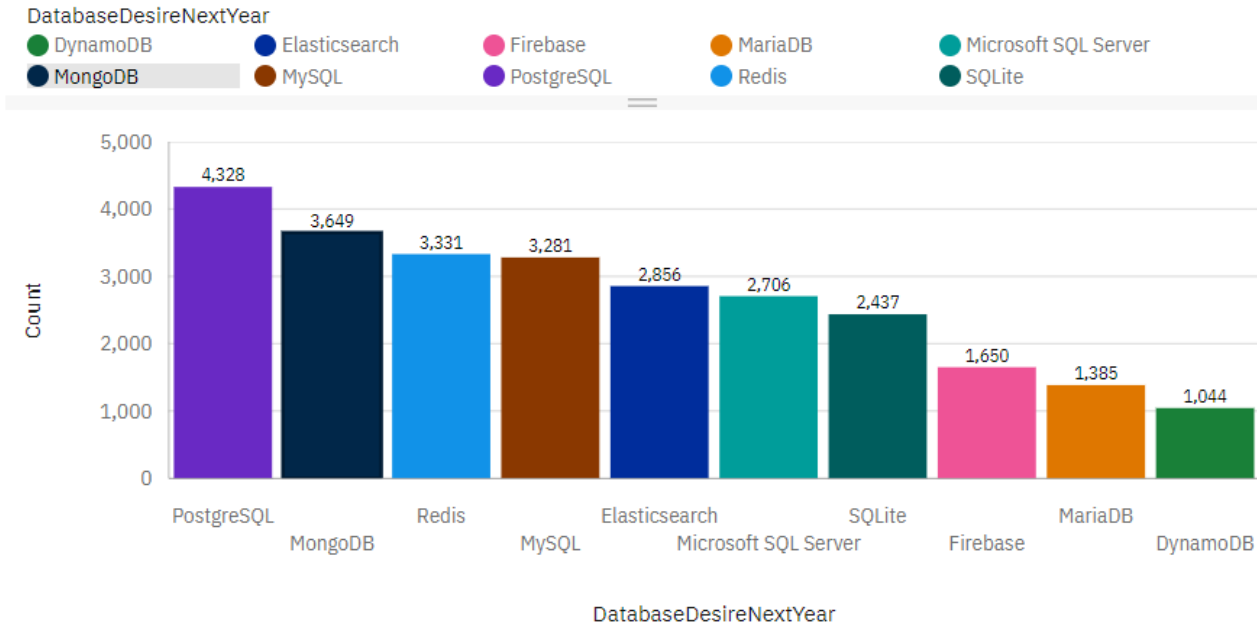
## Current Year

Top 10 Databases



## Next Year

Top 10 Database Desire Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL is the most used database
- No interest in Microsoft SQL Server and SQLite
- High interest in PostgreSQL and MongoDB

## Implications

- PostgreSQL and MongoDB leads the top trending in databases
- Microsoft SQL Server and SQLite booms the establishment in database trends.
- Redis support abstract data types.

# DASHBOARD

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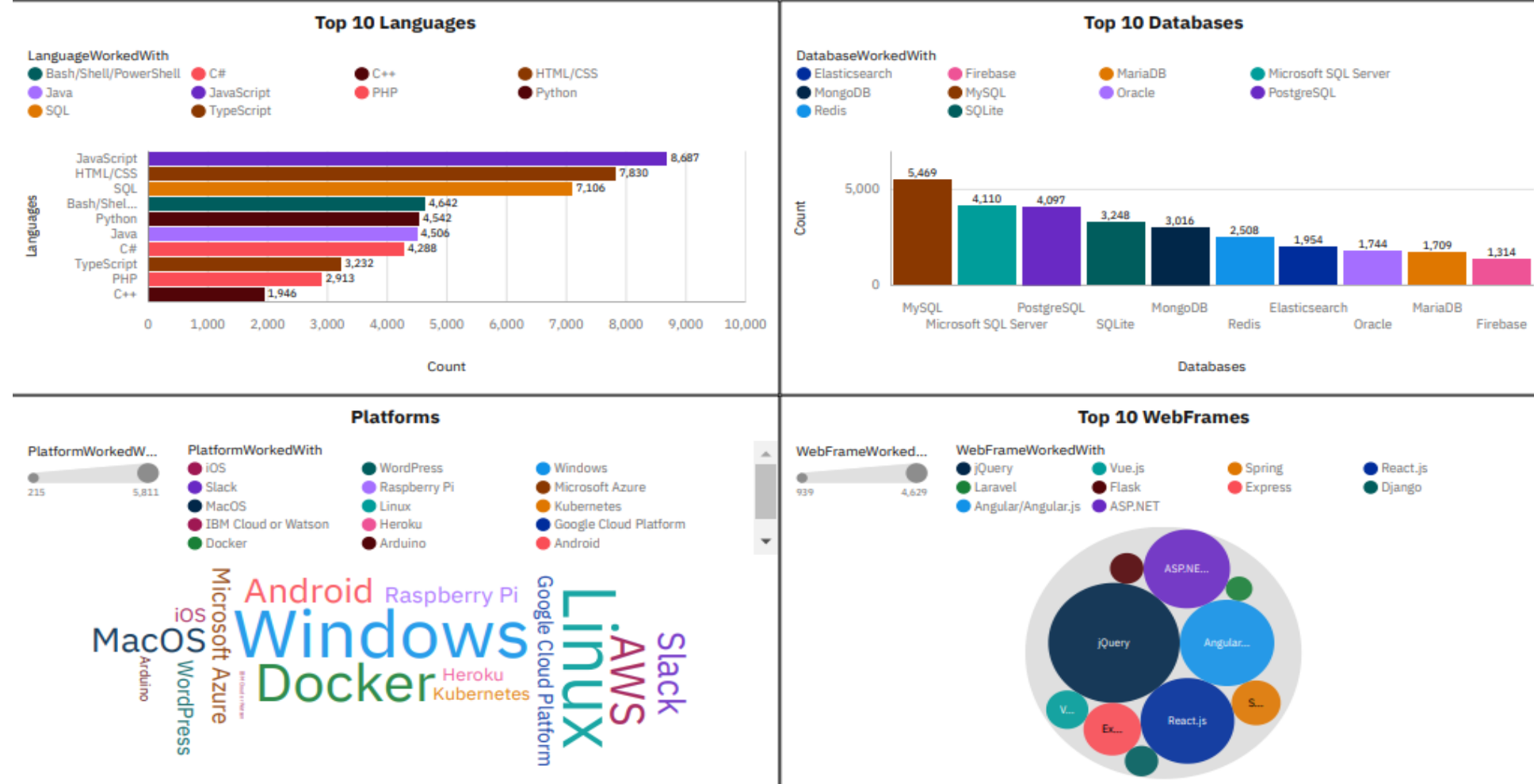


## Dashboard Link:

[https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my\\_folders%2FSurvey%2BData%2BTechnologies&action=view&mode=dashboard&subView=model0000019173874c05\\_00000000](https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FSurvey%2BData%2BTechnologies&action=view&mode=dashboard&subView=model0000019173874c05_00000000)

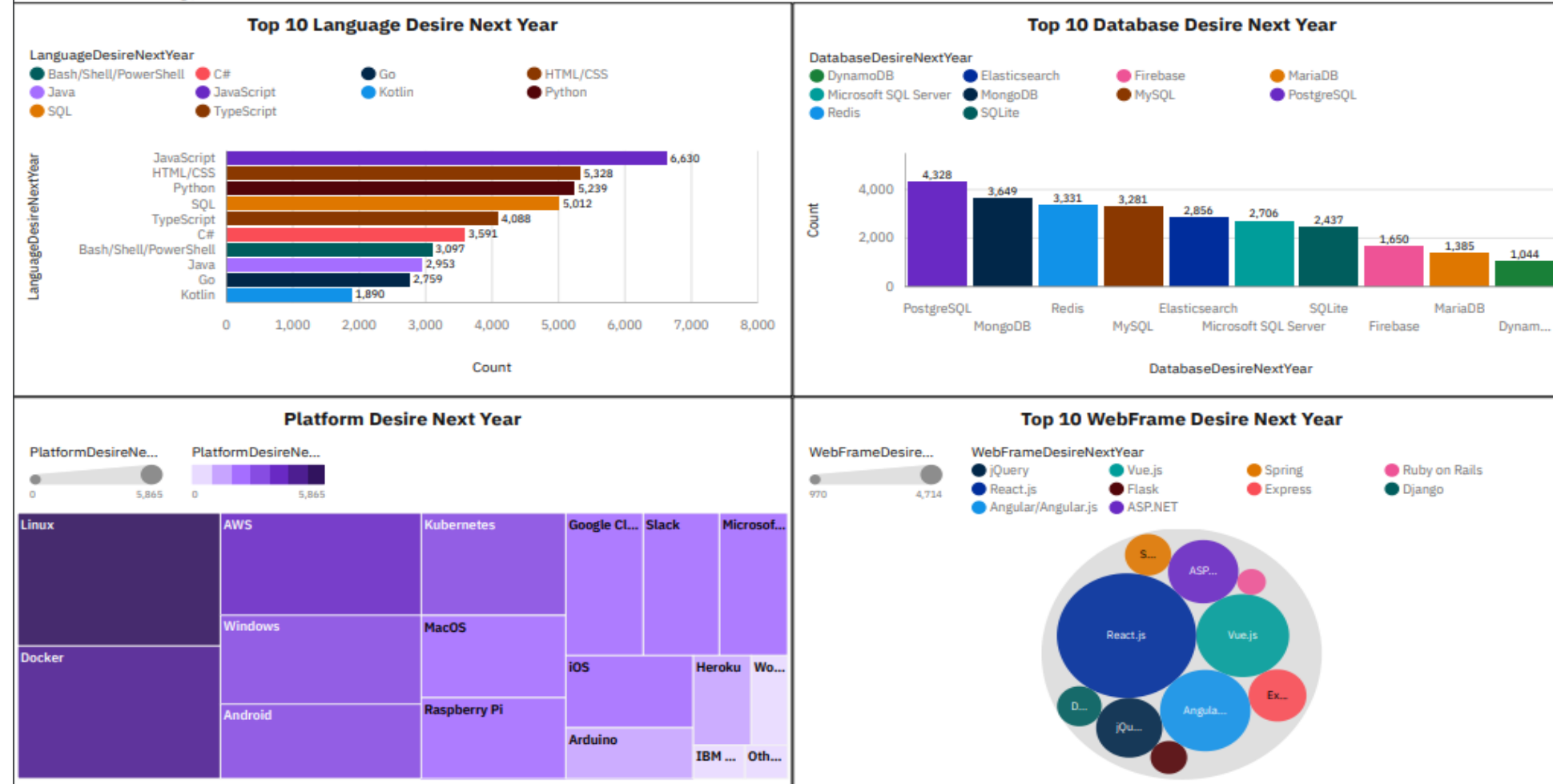
# CURRENT TECHNOLOGY USAGE

## Current Technology Usage.



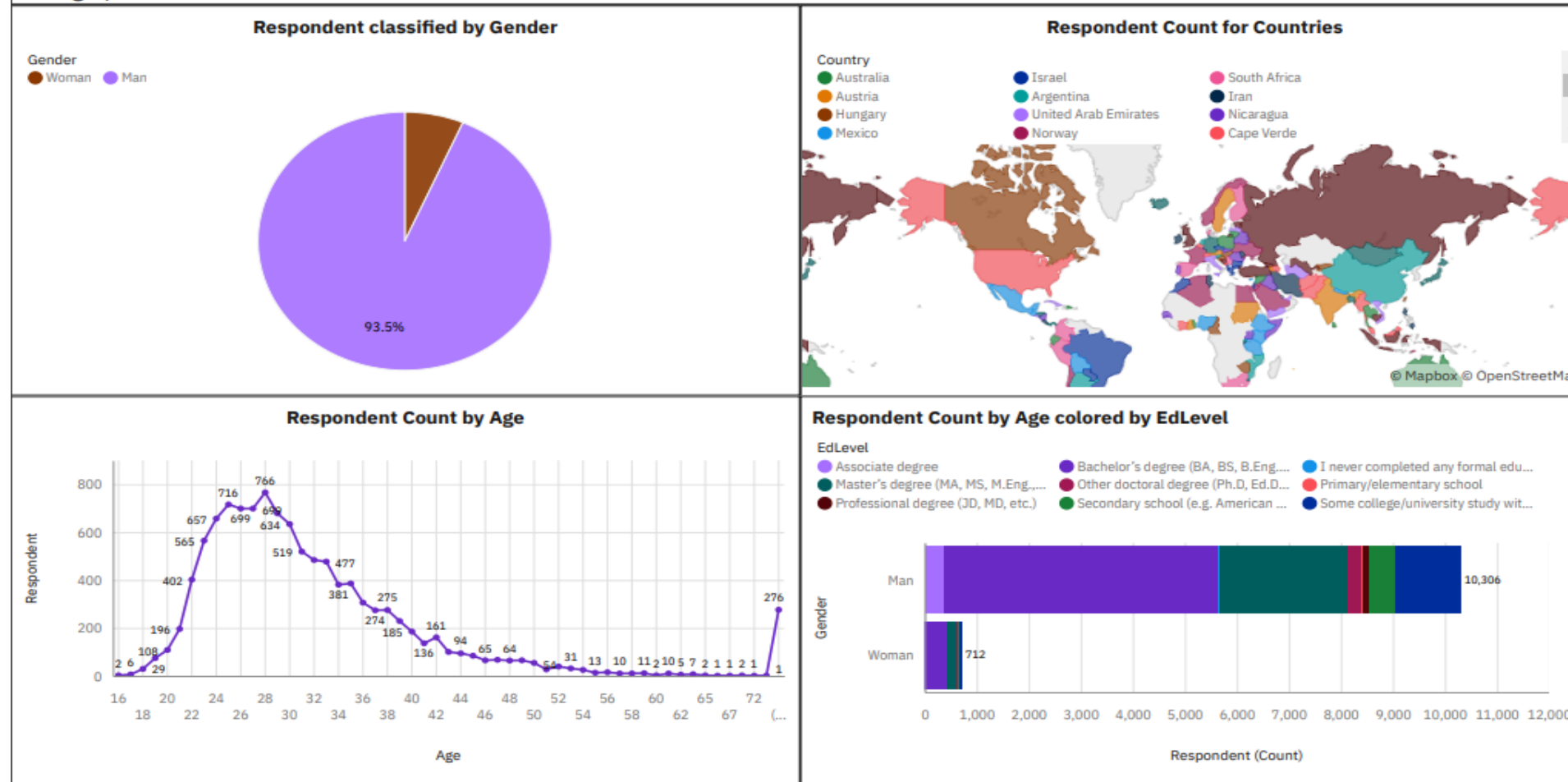
# FUTURE TECHNOLOGY TRENDS

## Future Technology Trend



# DEMOGRAPHICS

## Demographics



# DISCUSSION

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- Technology trends in current and next year
- Training skills for workers and young students
- Female needs more participation in technology fields
- Eliminate age and discrimination in employment of all developed countries.

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Fast changing technology every year
- Concentrates on several countries that are developed.
- Gender gap in technology jobs
- Platforms like Docker and AWS are growing efficiently.

## Implications

- Developers without master's degrees has a major count
- Companies needs to be flexible and adjust to rapid changes
- Impact of job's hiring
- Shift to faster app deployment and cloud services in future.



# CONCLUSION

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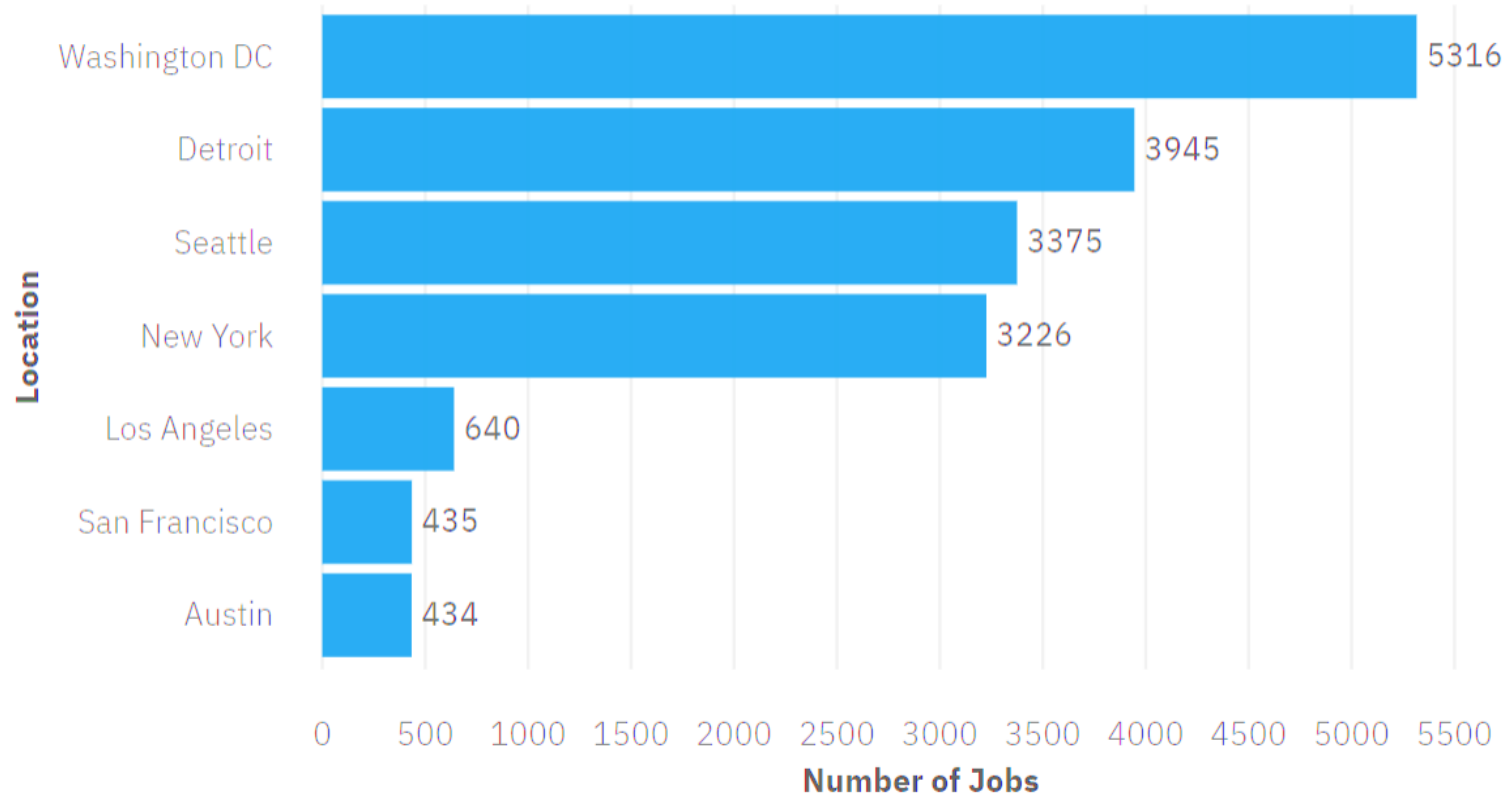
- Popular trends of latest technologies and tools of IT solutions and consultants can be obtained in different fields.
- Men and Women are considered equal to work in areas of technology and interests which can lead in developed countries with a great scale of skills.
- Incorporate Machine Learning to predict trends, patterns and salaries.

# APPENDIX

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# JOB POSTINGS



# POPULAR LANGUAGES

