



# Trending Skills in Programming

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February 12<sup>th</sup> 2024

# OUTLINE

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

# EXECUTIVE SUMMARY

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- As a globally renown IT and business consulting firm we must keep up with changing technologies to remain competitive
- Web Scraping and Analysis
  - Top Programming Languages in Demand
    - JavaScript
  - Top Databases
    - MySQL, PostgreSQL
  - Popular Platforms
    - Linus, AWS, Windows
- Competitive Edge
  - Investment in Training Programs
- Continuous Monitoring of Trends

# INTRODUCTION

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- Our objective is identifying and analyzing emerging skills trends in the IT industry to ensure our organization remains competitive
- Problem: Rapid technological advancements necessitate proactive identification of emerging skills
- Which raise the following questions
  - Which programming languages are currently most in demand in the job market?
  - What are the top database skills sought after by IT employers?

# METHODOLOGY

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- Collected data from job postings, training portals, and surveys to capture a comprehensive view of emerging skills
  - Web Scraping and Accessing API's
- Applied statistical techniques to identify trends
- Performed data wrangling to clean and format data for consistency and accuracy

# RESULTS

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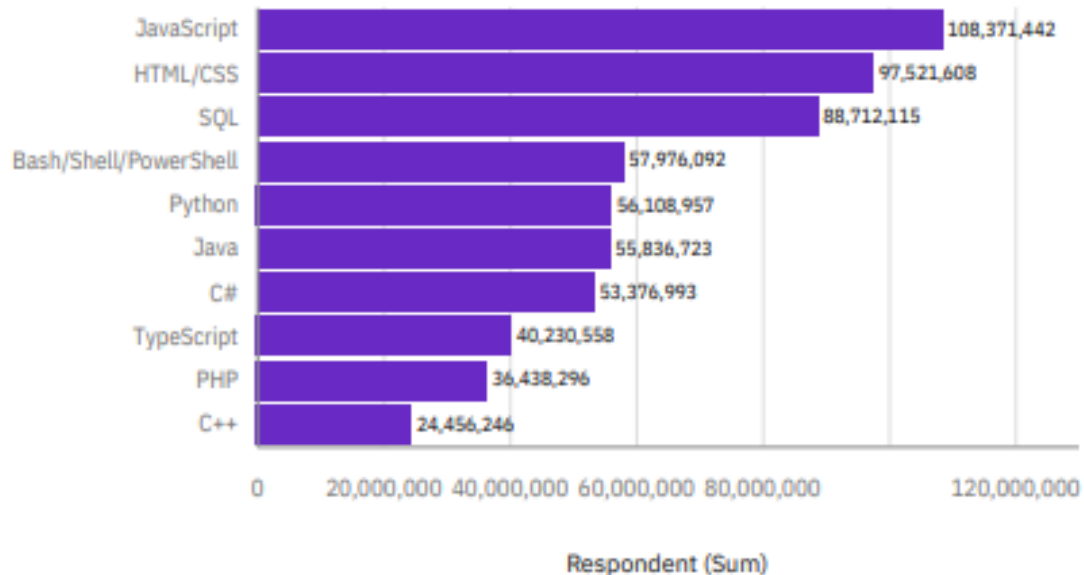
- Compiled data from various sources into a structured format
- Grouped data into relevant categories
- Conducted comparisons to reveal insights into relative popularity
- Utilized charts and graphs to present findings in an accessible manner
  - Matplotlib and Cognos Analytics
- The upcoming slides will showcase some bar charts, graphs, and other visual representations

# PROGRAMMING LANGUAGE TRENDS

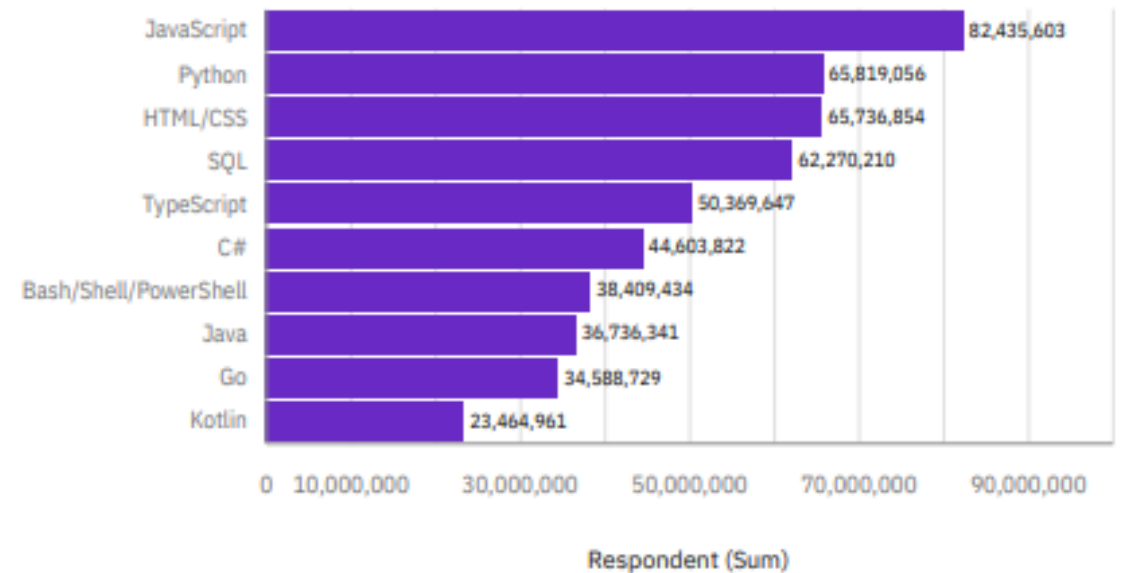
Current Year

Next Year

Top 10 Languages Worked With



Top 10 Languages Desired Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is both the current and projected top Programming language
- Python raising in popularity to 2<sup>nd</sup>
- Go and Kotlin enter the top 10 languages

## Implications

- JavaScript is the most useful programming language to learn
- Growth in python popularity correlates with the growth in automation
- Newer languages (Go and Kotlin) are raising in popularity, overtaking the spots of older languages

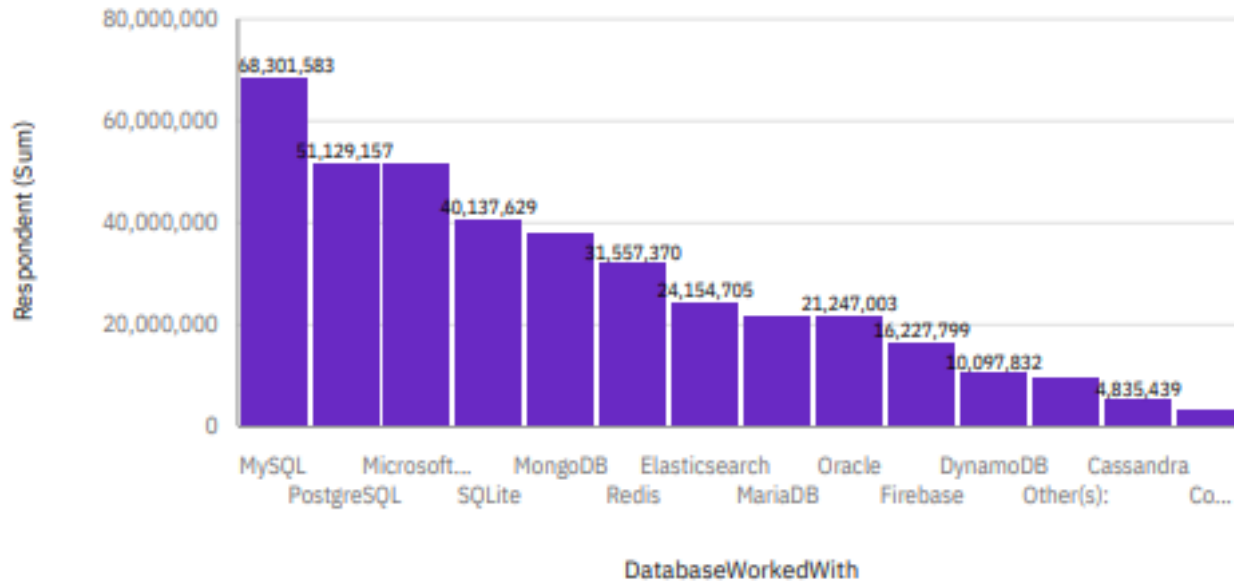


# DATABASE TRENDS

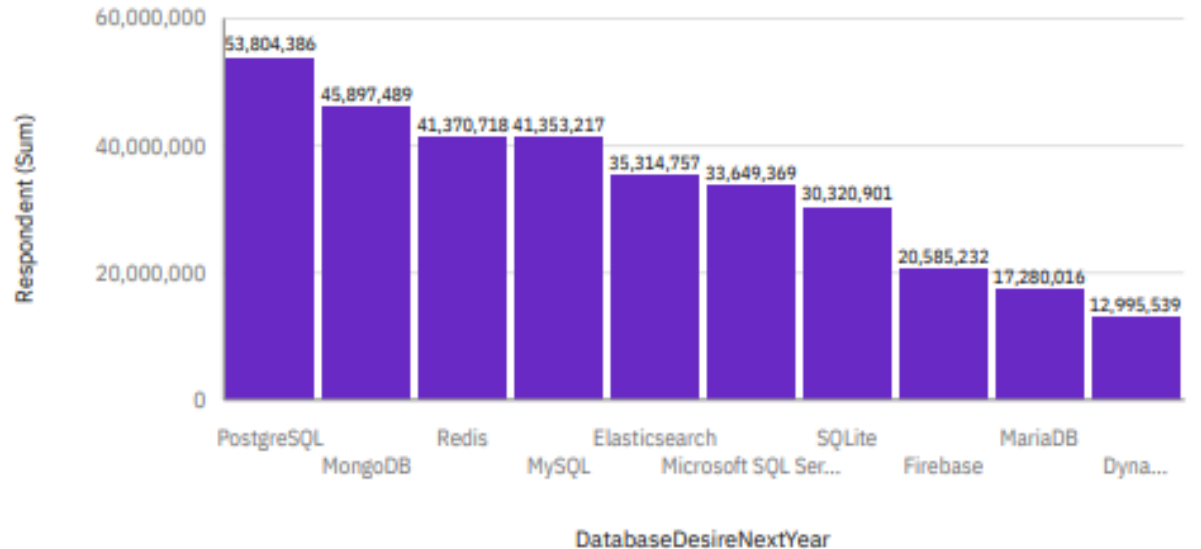
Current Year

Next Year

Top 10 Databases Worked With



Top 10 Databases Desired Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Top Database switched from MySQL to PostgreSQL
- MySQL desirability dropped by tens of millions
- More balance of desirability between databases

## Implications

- MySQL has lost its popularity with much of the community
- There isn't a clear "best" database to work with
- Many database companies have improved the benefits of using their product

# DASHBOARD

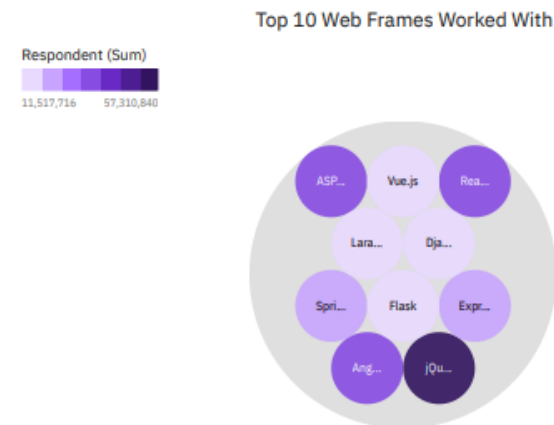
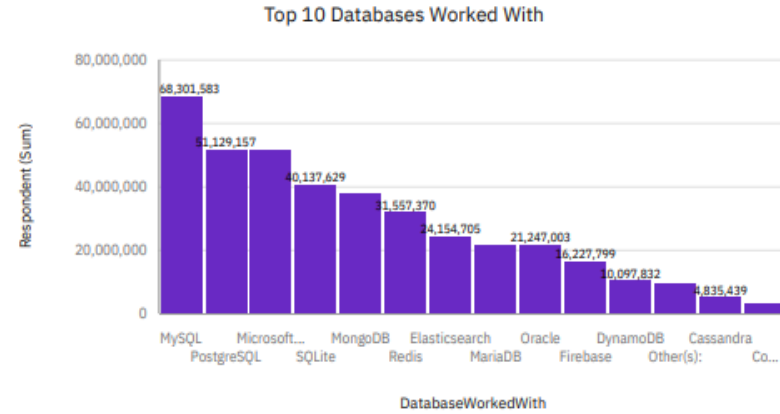
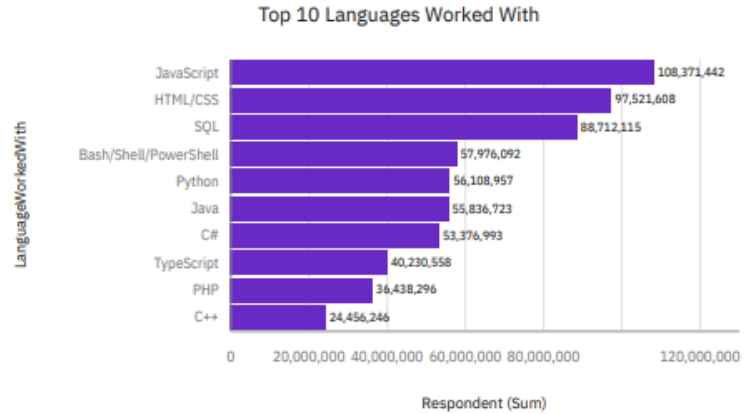
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<https://github.com/BrandonKim715/dashboard/blob/a42f8f174135f5abc917b529818e88b474be2399/Module%209.pdf>

# DASHBOARD TAB 1

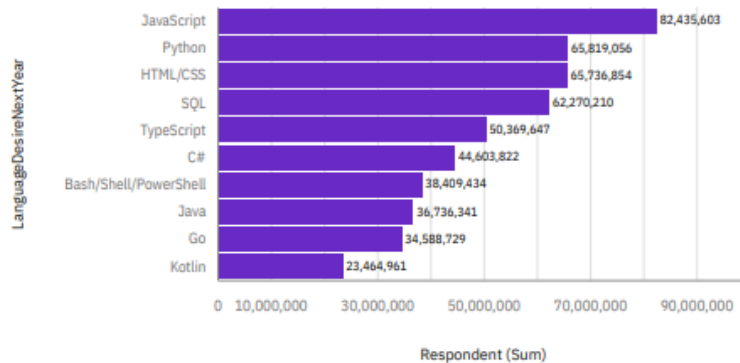
## Current Technology Usage



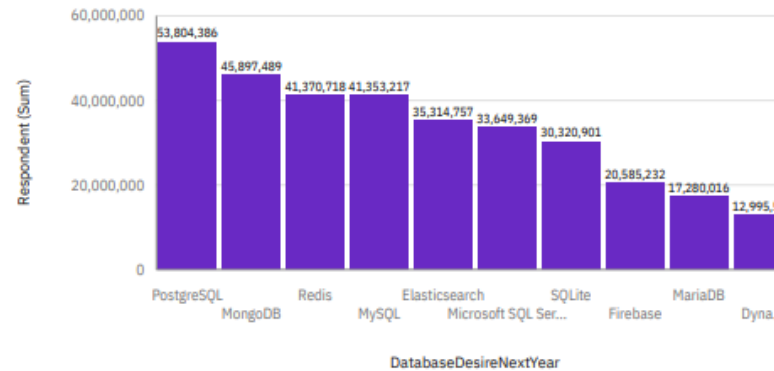
# DASHBOARD TAB 2

## Future Technology Trend

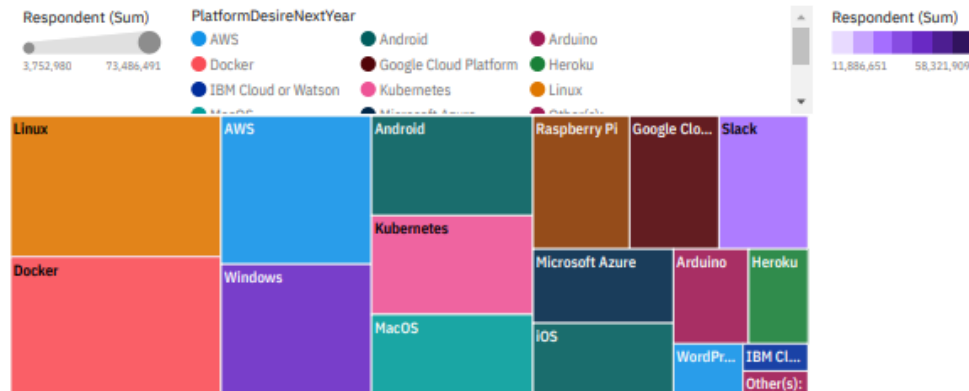
Top 10 Languages Desired Next Year



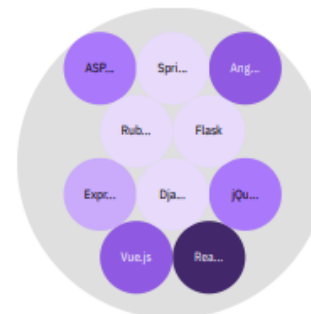
Top 10 Databases Desired Next Year



Platforms Desired Next Year

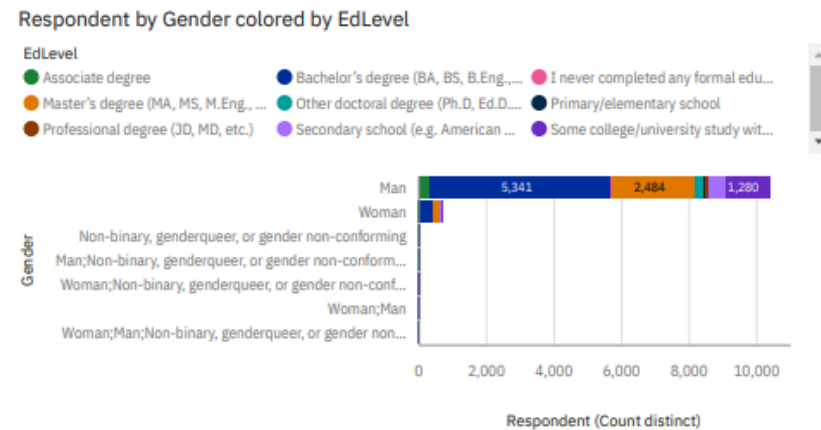
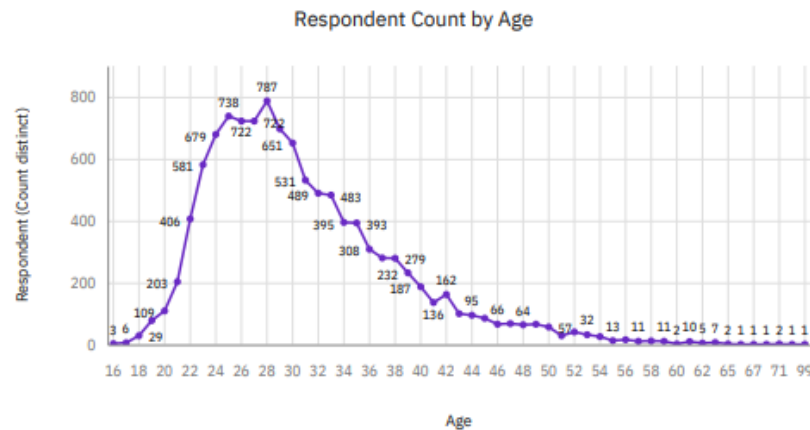
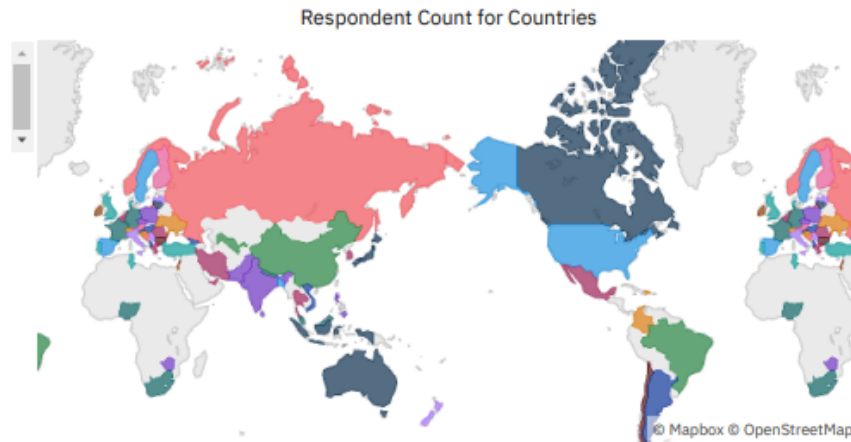
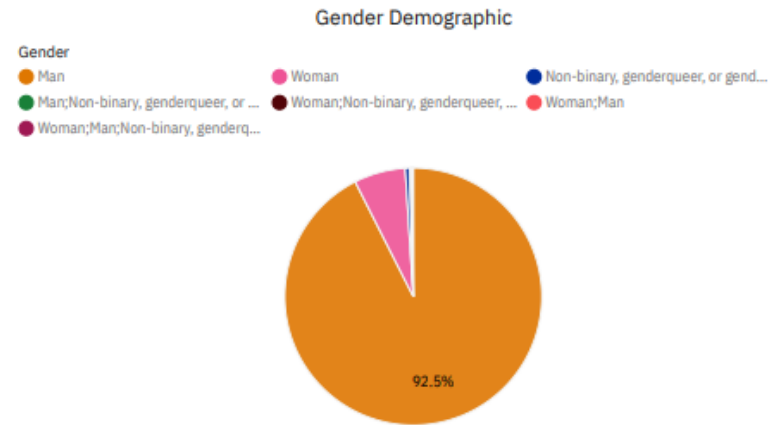


Top 10 Web Frames Desired Next Year



# DASHBOARD TAB 3

## Demographics



# DISCUSSION

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- How can our organization leverage these findings to stay ahead in the industry?
- Share your insights on the importance of continuous skills development in the IT industry.
- What strategies have worked for you in adapting to rapidly changing technology landscapes?

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- JavaScript is and remains the #1 programming language
- Most respondents to the survey were young adults
- Most respondents were male

## Implications

- JavaScript is vital for the company to know to stay competitive
- Many of the people working the technological field haven't been in the industry for very long
- Tech is still a largely male dominated field



# CONCLUSION

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- JavaScript should be the company's focus to keep up with the high demand
- Consider a training program to keep employees at the top of our field
- Continuous Monitoring: Regularly revisiting and adapting to evolving trends

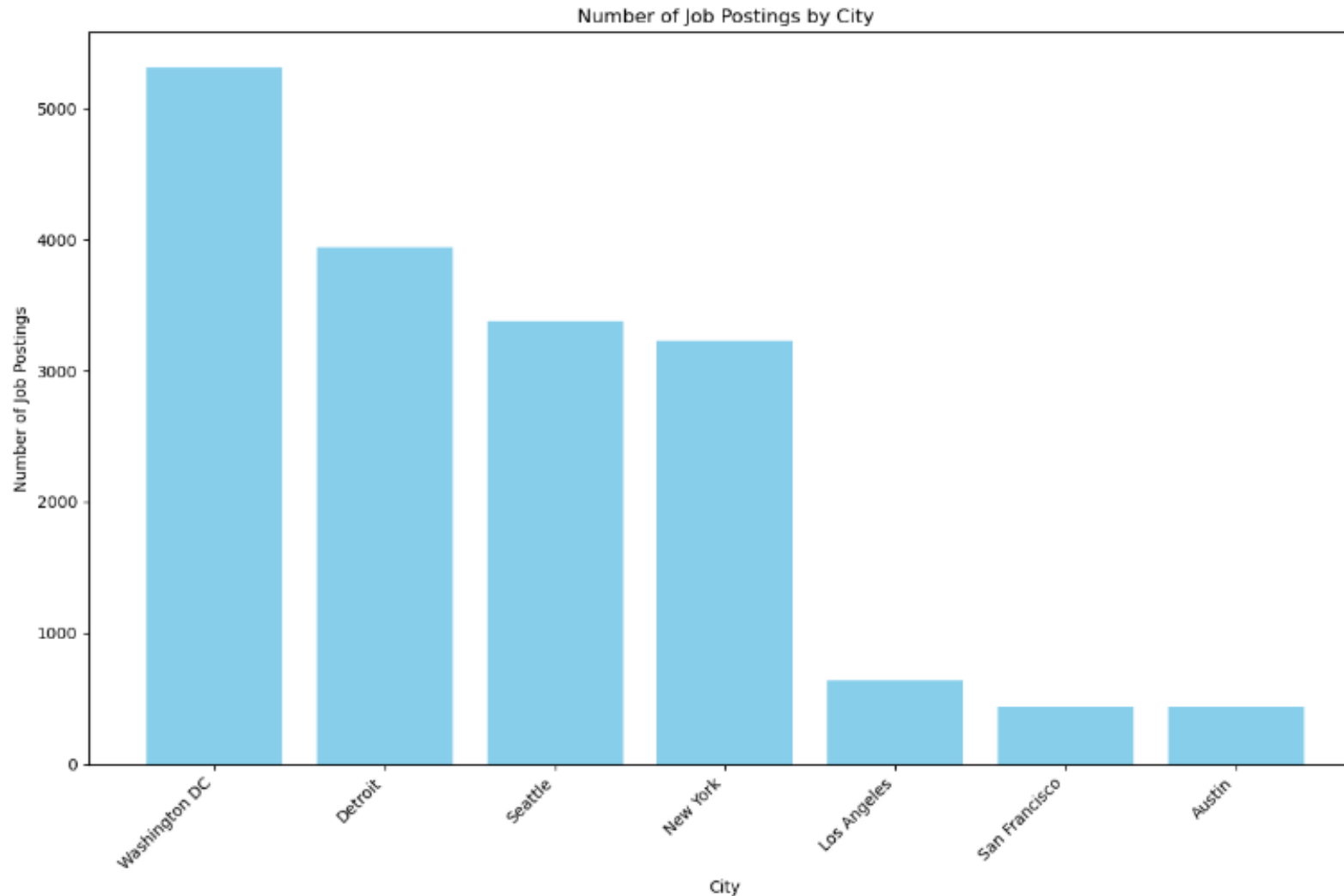
# APPENDIX

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- Thank you for your attention during the main presentation. The following slides will share interesting finding,additional details, insights, and visualizations related to the presented content.

# JOB POSTINGS



# POPULAR LANGUAGES

