



Programing Skill Market Analysis

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OUTLINE



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- Introduction
- Methodology
- Results
 - Visualization – Charts
 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- Collecting programming techniques, personal information from various programmers
- Wrangling and explore data
 - Deal with missing, duplicated, outlier data, and normalize data
 - Find the relation between different features
- Analyzing data and identify insights and trends
 - The top 10 languages
 - The top 10 database
 - The popular programming tools
- Building a dashboard based on the analysis by cognos analysis

INTRODUCTION



- To keep pace of the development of techniques is significant for IT careers
- Focus problems
 - What are the popular programming tools in the present
 - What are the popular programming tools in the future

METHODOLOGY



- Data collecting
- Data wrang
- Exploratory data analysis
- Data visualization
- Building a dashboard

RESULTS

Current techniques

Future techniques

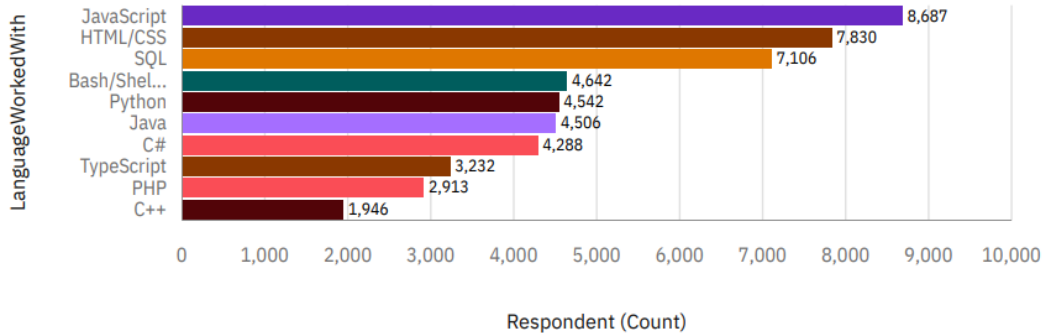
PROGRAMMING LANGUAGE TRENDS

Current Year

Current Technology Usage

Top 10 Language Worked With

LanguageWorkedWith

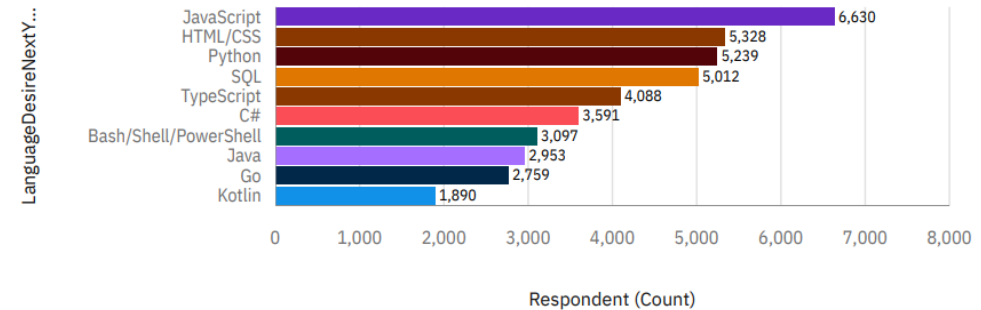
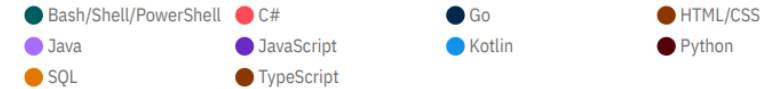


Next Year

Technology Trend

Top 10 LanguageDesireNextYear

LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most highest number of people working with, following by HTML/CSS for both
- The third is replaced by python
- Total number of people who are working with top 10 languages decreases in the next year

Implications

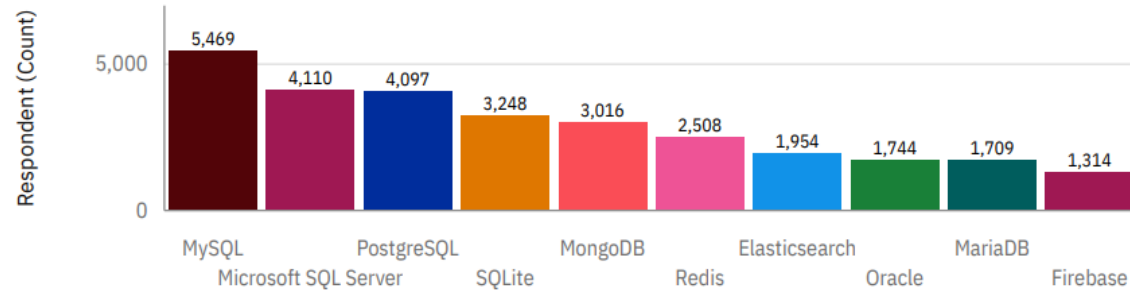
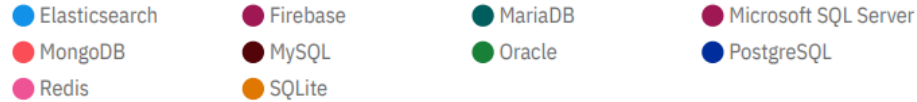
- JavaScript and HTML/CSS keep the trend
- People are more interested in python
- People are more interested for other languages

DATABASE TRENDS

Current Year

Top 10 Database

DatabaseWorkedWith

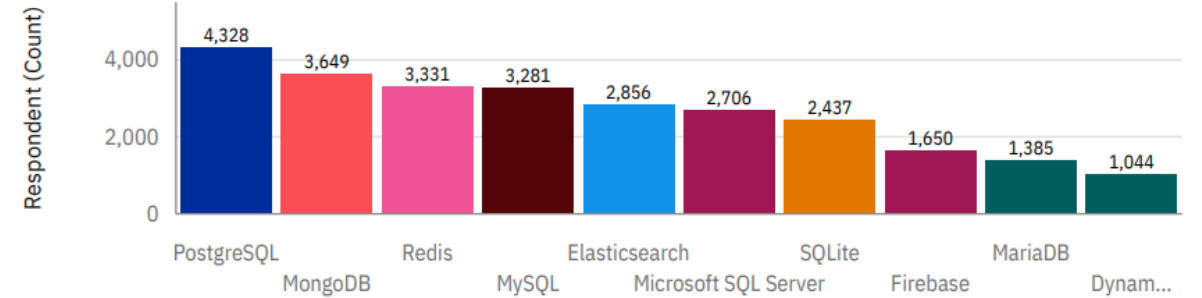
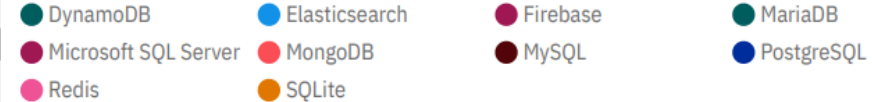


DatabaseWorkedWith

Next Year

Top 10 DatabaseDesireNextYear

DatabaseDesireNextYear



DatabaseDesireNextYear

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase will get higher ranking
- Oracle will be out, and replaced by DynamoDB

Implications

- People are more interested in PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase
- People change the attention from Oracle to DynamoDB

DASHBOARD



The link of Cognos Dashboard
[Click here](#)

DASHBOARD TAB 1

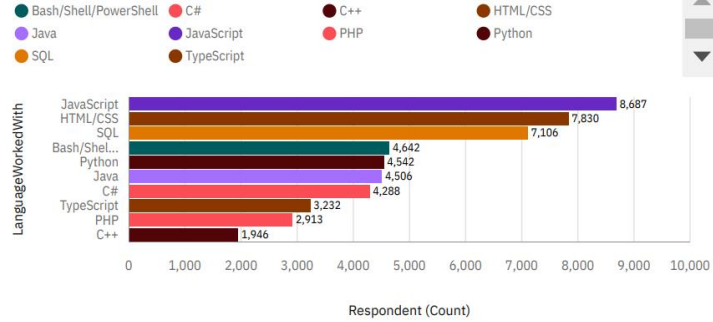
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New dashboard

Current Technology Usage

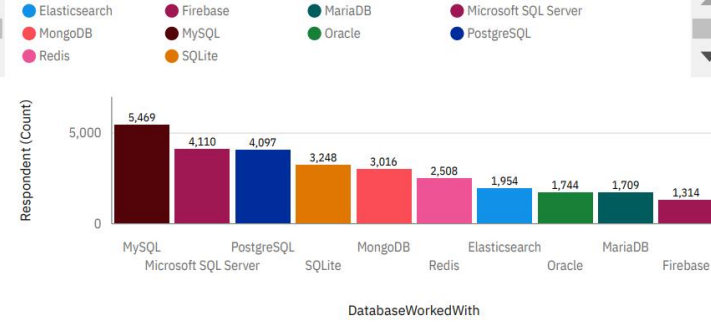
Top 10 Language Worked With

LanguageWorkedWith



Top 10 Database

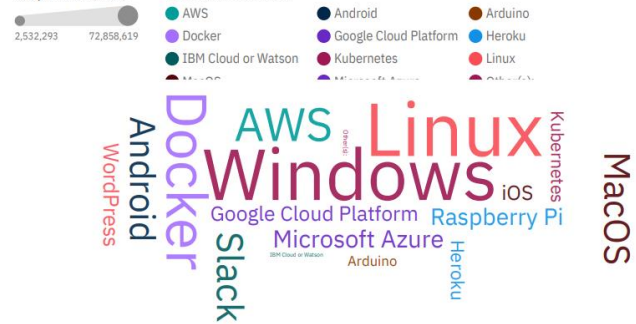
DatabaseWorkedWith



Word Cloud of Popular Platform

Respondent (Sum)

PlatformWorkedWith

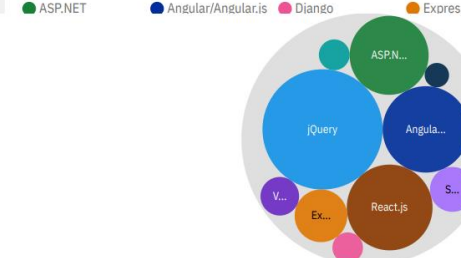


Top 10 Web Frames

Respondent (Count)

Category	Value
Did not vote	939
Did not vote	4,629

WebFrameWorkedWith



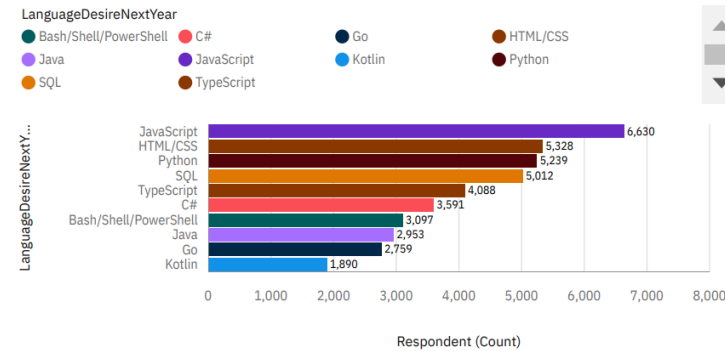
DASHBOARD TAB 2

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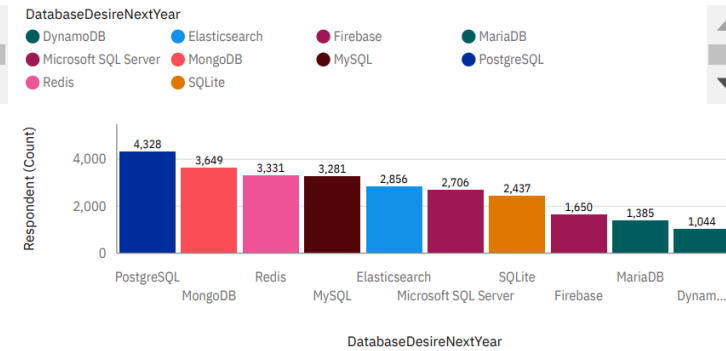
New dashboard

Technology Trend

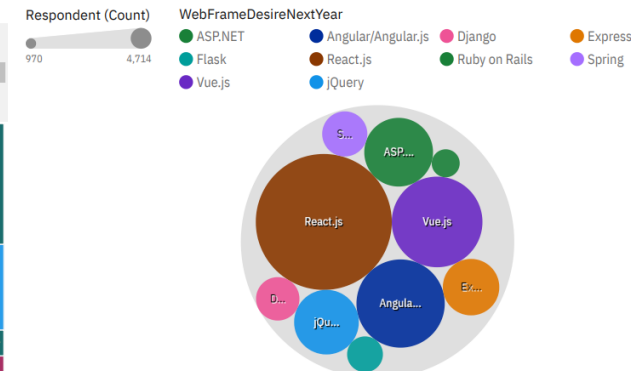
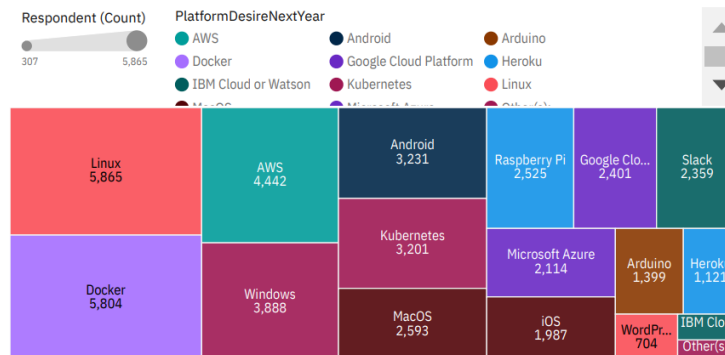
Top 10 LanguageDesireNextYear



Top 10 DatabaseDesireNextYear



Tree map of PlatformDesireNextYear



DASHBOARD TAB 3

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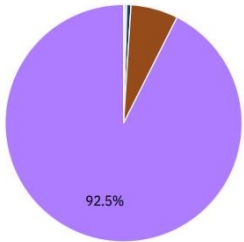
New dashboard

Demographics

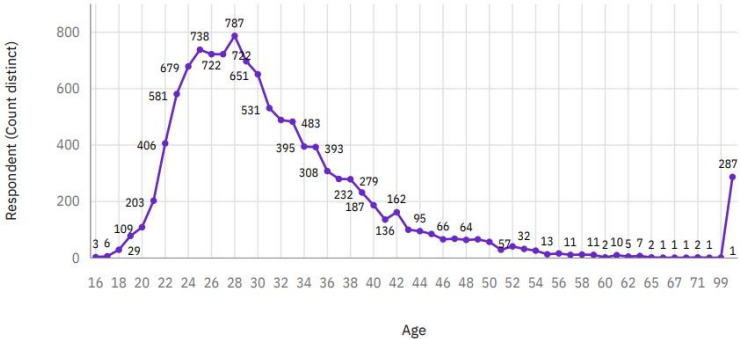
Genders

Gender

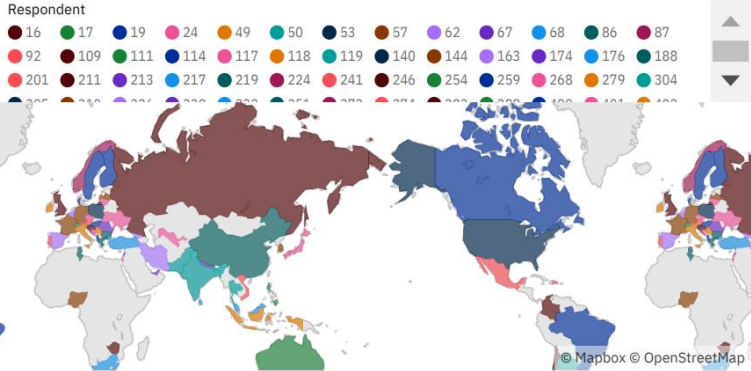
- Woman;Man;Non-binary, genderq...
- Woman;Man
- Woman;Non-binary, genderqueer, ...
- Man;Non-binary, genderqueer, or ...
- Non-binary, genderqueer, or gend...
- Woman
- Man



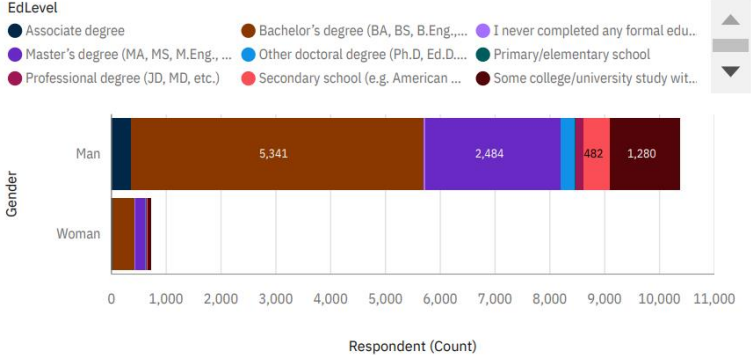
Respondent by Age



Respondent for Country regions



Respondent by EdLevel



DISCUSSION



- Relations between genders, education levels, locations, ages and the number of Respondents
- Popular programming tools and techniques

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most highest number of people working with, following by HTML/CSS for both
- PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase will get higher ranking
- The most of respondents come from EU and NA

Implications

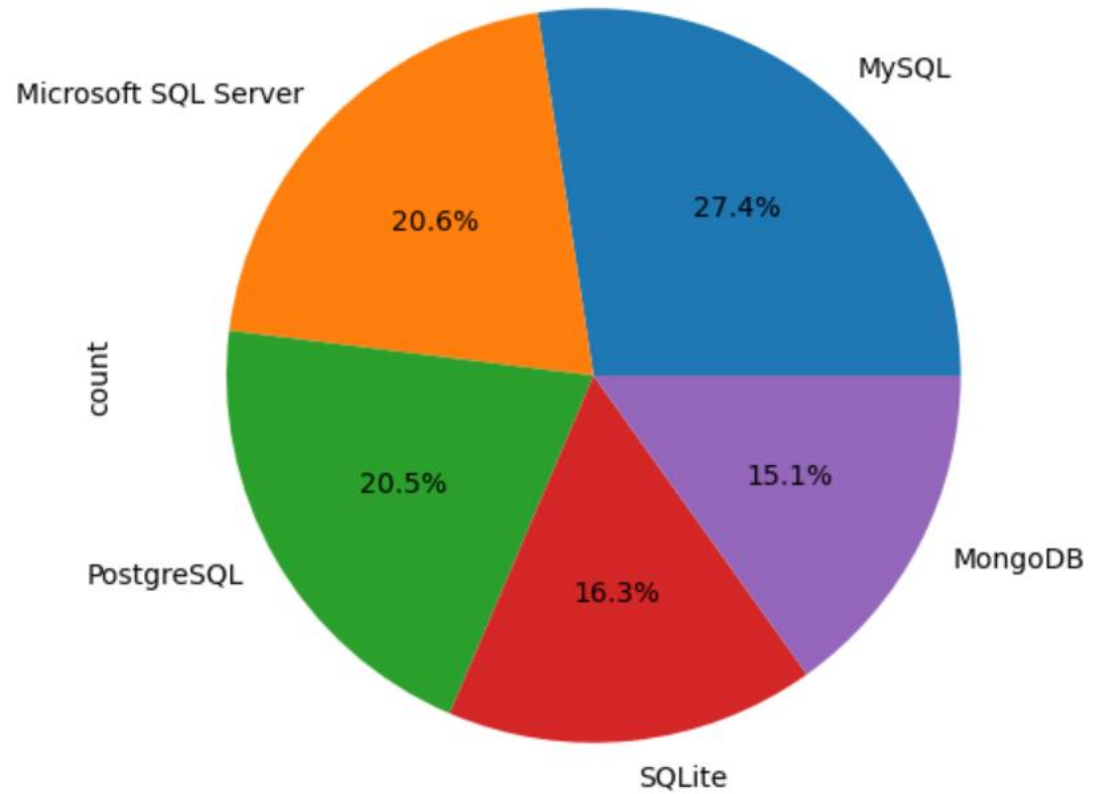
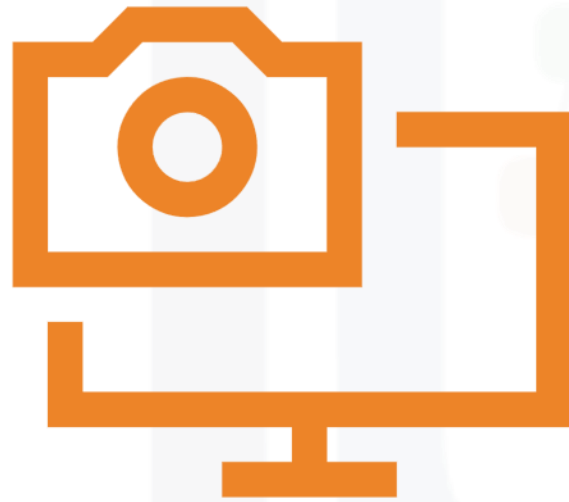
- JavaScript and HTML/CSS keep the trend
- People are more interested in PostgreSQL, MongoDB, Redis, ElasticSearch and Firebase
- People in EU and NA are more interested in IT

CONCLUSION

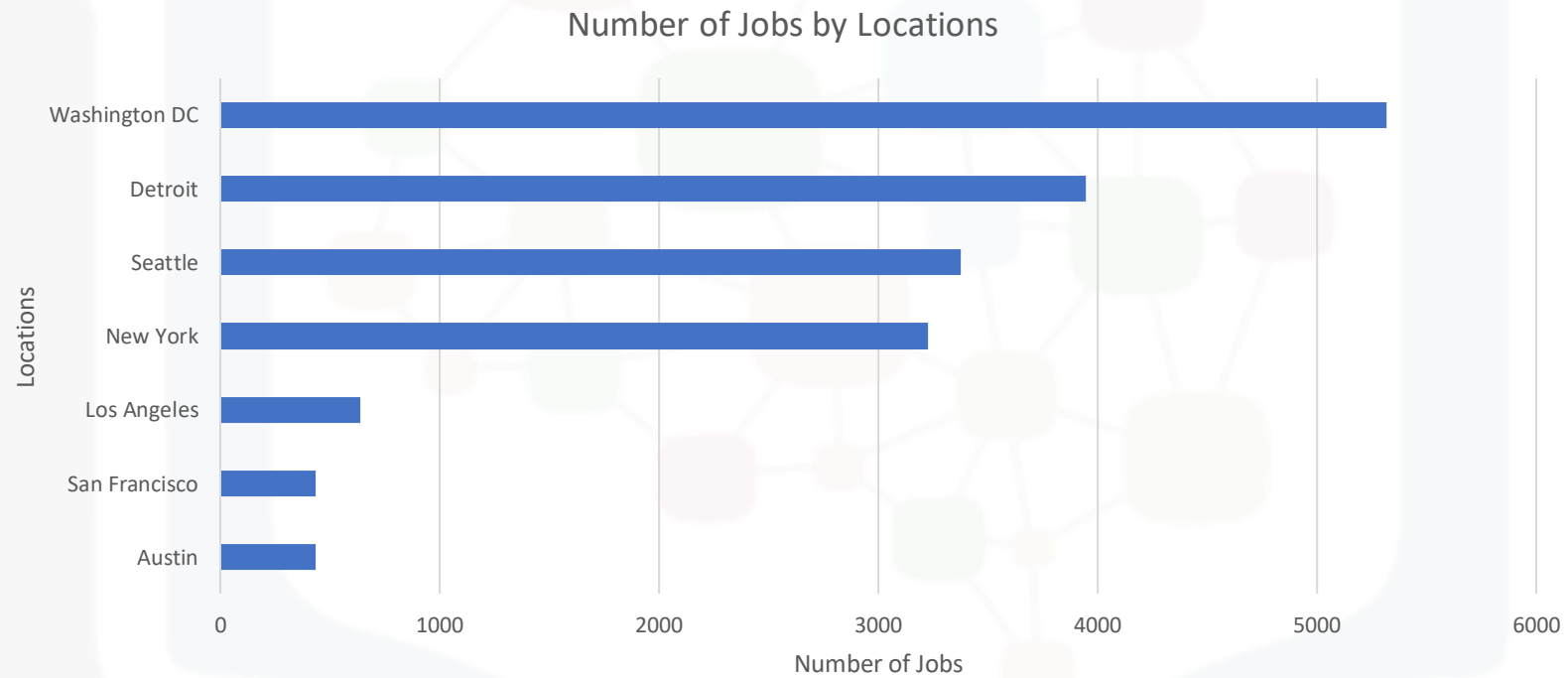


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APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

