The 2019 Stack Overflow Developer Survey Results Are In

SOUMIK MITRA

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OUTLINE

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

EXECUTIVE SUMMARY

- Company details with its survey and goals
- Methodology Description
  - Data collection and cleaning
  - Data analysis
  - Data visualization
- Result presentation with charts of trends
- Discussion and depth regarding of each database declared in results
- Dashboard presentation of all trends with demographics
- Conclusion of each research

INTRODUCTION

- Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of people who code around the world
- But the results don't represent everyone in the developer community evenly.
- We'll make the anonymized results of this year's survey publicly available under the Open Database License (ODbL) in May.
- To address these characteristics of our survey sample, we often summarize results by
  - Country
  - Gender
- highlight results for underrepresented racial/ethnic group and use survey weighting to correct for demographic skew.

METHODOLOGY

Data collection

- Collecting Data using APIs
- Collecting Data using Web Scraping

Data Wrangling

- Finding and removing Duplicates
- Finding and Imputing Missing Values
- Normalizing Data

Exploratory Data Analysis

- Analyzing Data Distribution
- Hanging Outliers
- Correlations

Data Visualization

- Visualizing Distribution of Data
- Finding Relation using different types of graphs and comparing them

Dashboards Cognos

RESULTS

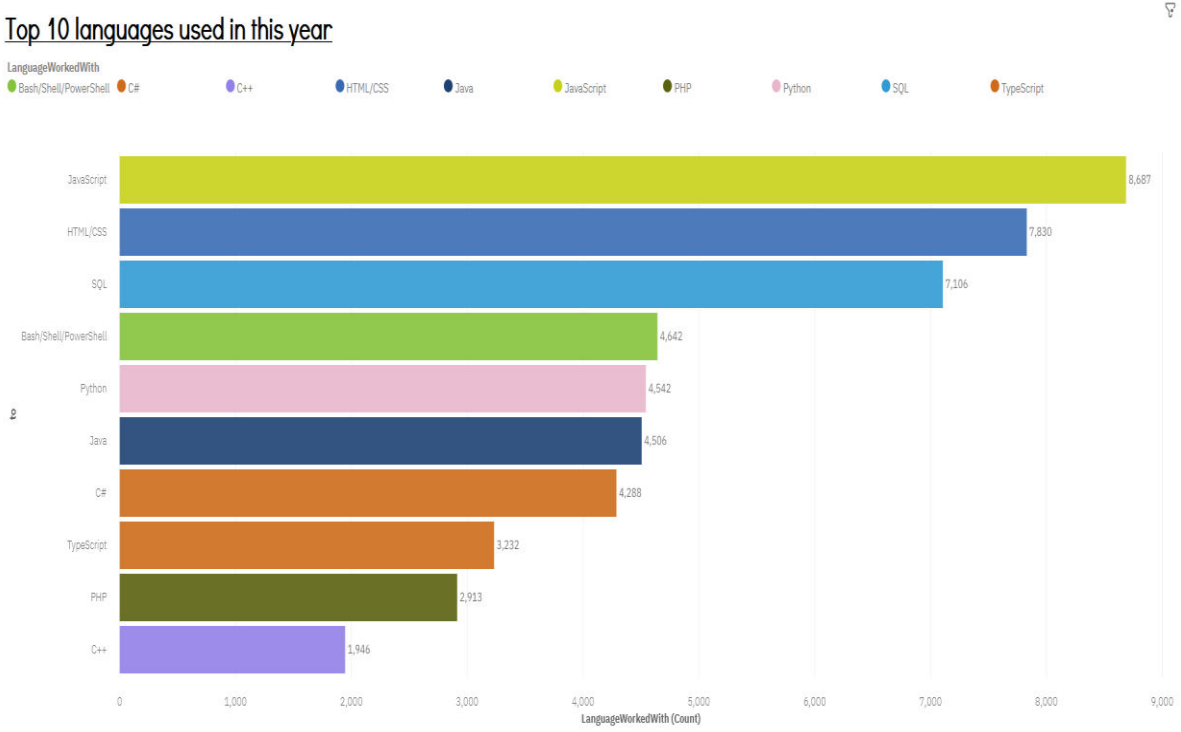
- Creating visualizations using the developer survey data. The visualizations highlight the distribution of data, relationships between data, the composition of data, and comparison of data.

- Creating dashboards using IBM Cognos Analytics .

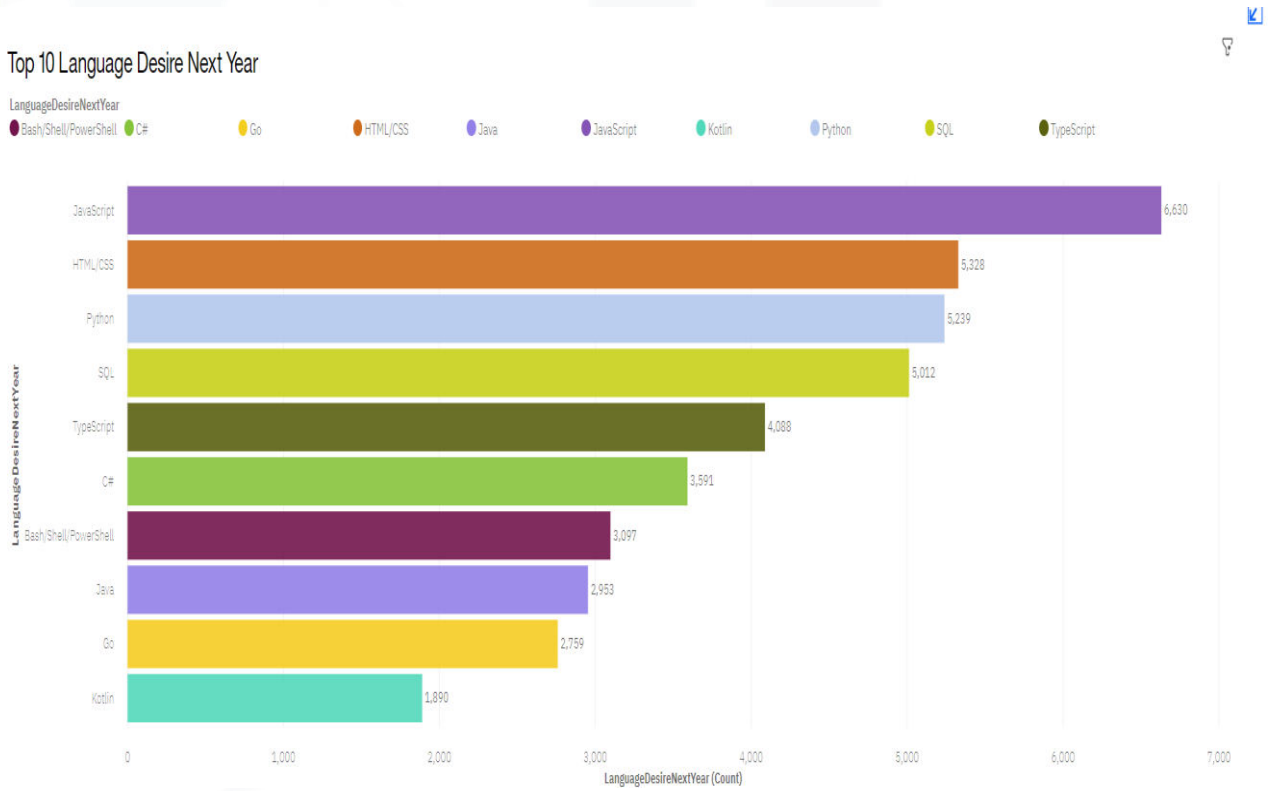
- Dashboards will contain data analysis, which should be intuitive and allow for the drill-down of data.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

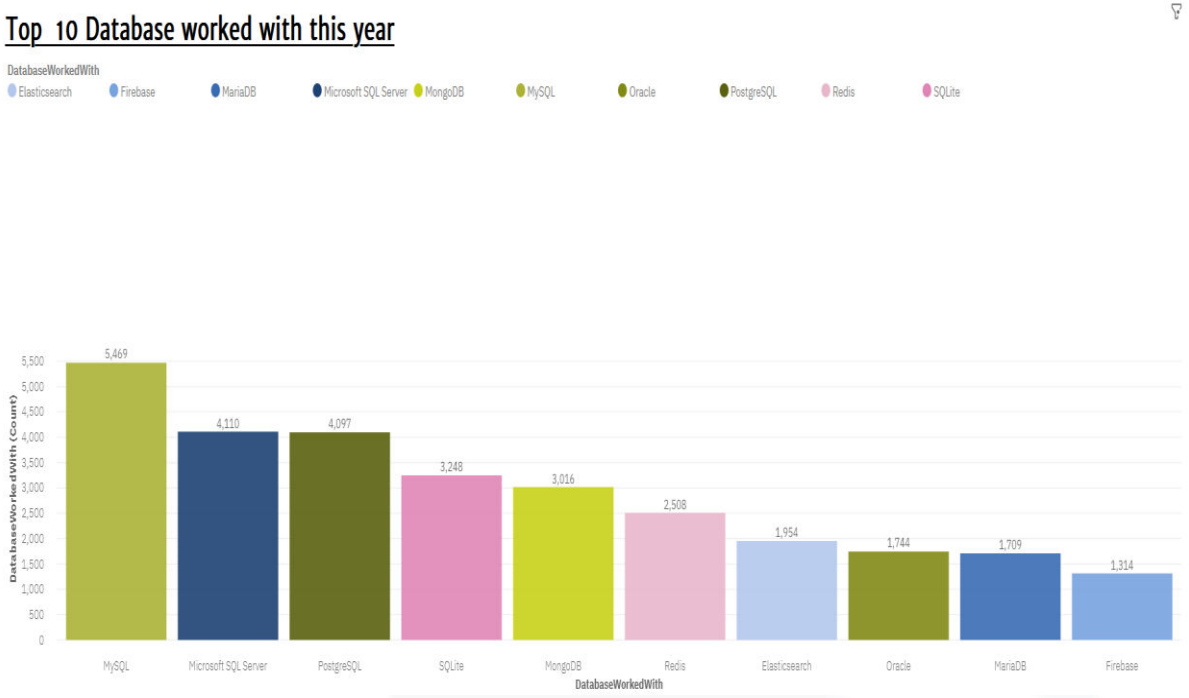
- JavaScript is the most leading programing language
- Python, the fastest-growing major programming language
- Interest in TypeScript

Implications

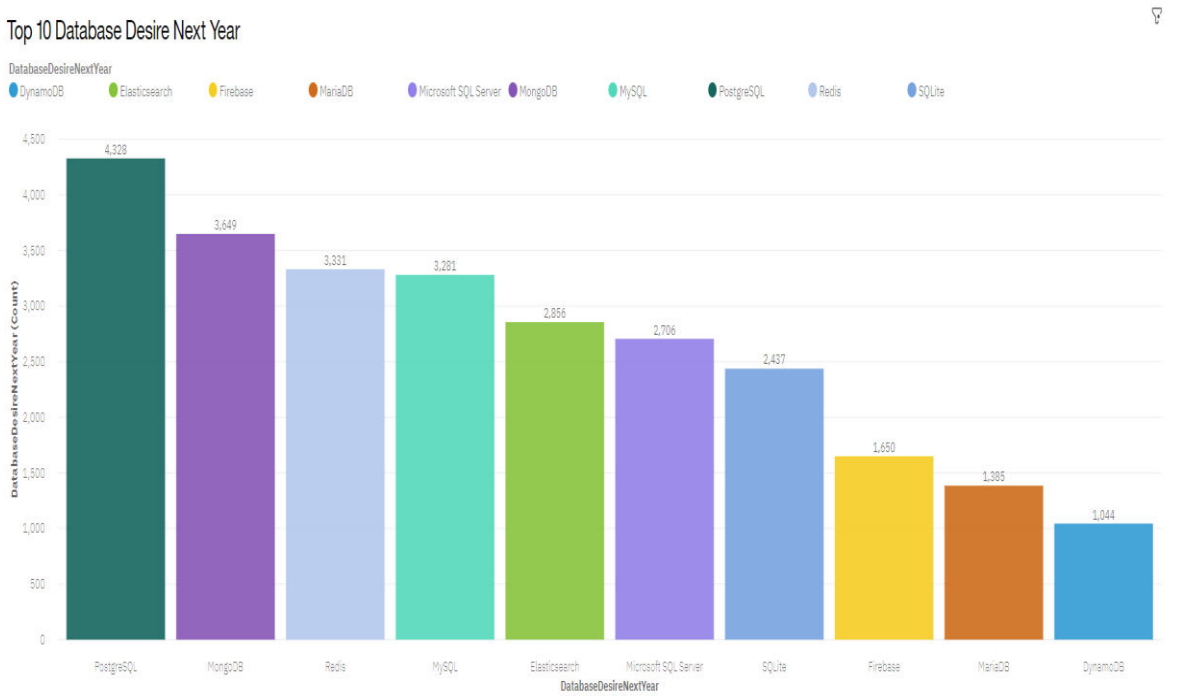
- Python is the Future of the Programming World
- Shift of programmers from JavaScript to TypeScript

DATABASE TRENDS

Current Year



Next Year



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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most leading database
- Increase interest in MongoDB and PostgreSQL
- Decrease in passion towards Microsoft Server and SQLite

Implications

- PostgreSQL and MongoDB will establish the future Database market
- MySQL losing its pinnacle in the market
- Microsoft Server and SQLite losing feats in the market

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DASHBOARD

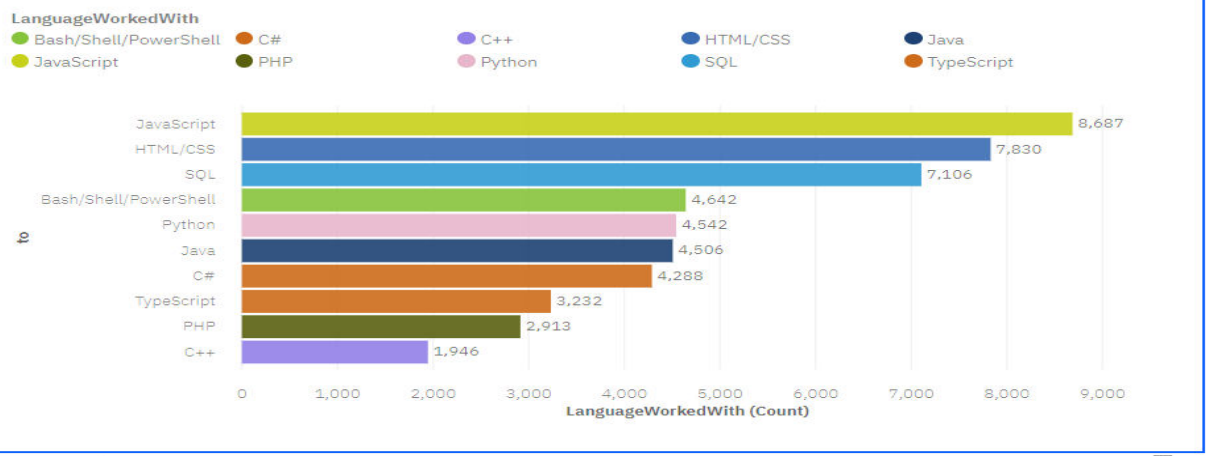
- https://dataplatform.cloud.ibm.com/dashboards/0518a081-a7c1-429c-a6e8-a1cfa017a590/view/6c62d42a358f0b9243c1eee4079b7a527a3f7159babb8601d2817b490c617897f06c1296c87c4f5edf110167f6bd440bce

DASHBOARD TAB 1

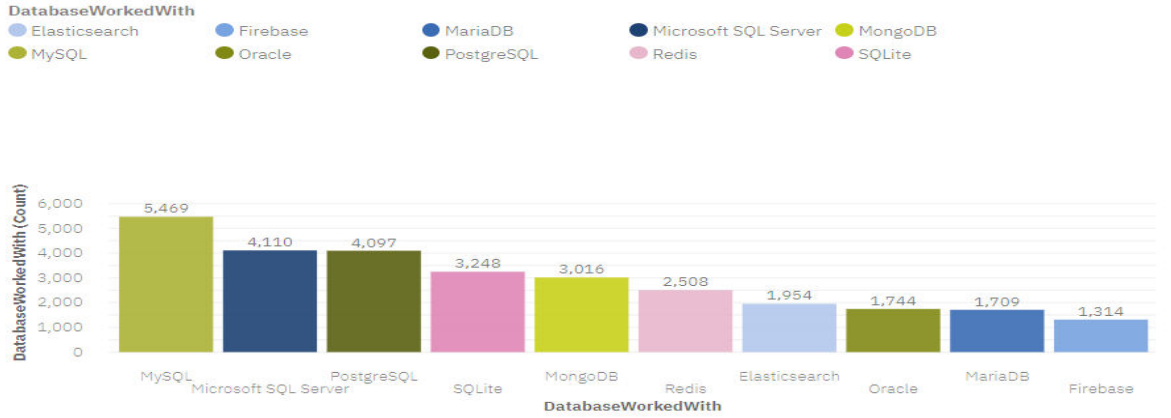
Bar | Filters

Current Technology Usage.-1 | Future Technology Trend. | Demographics.

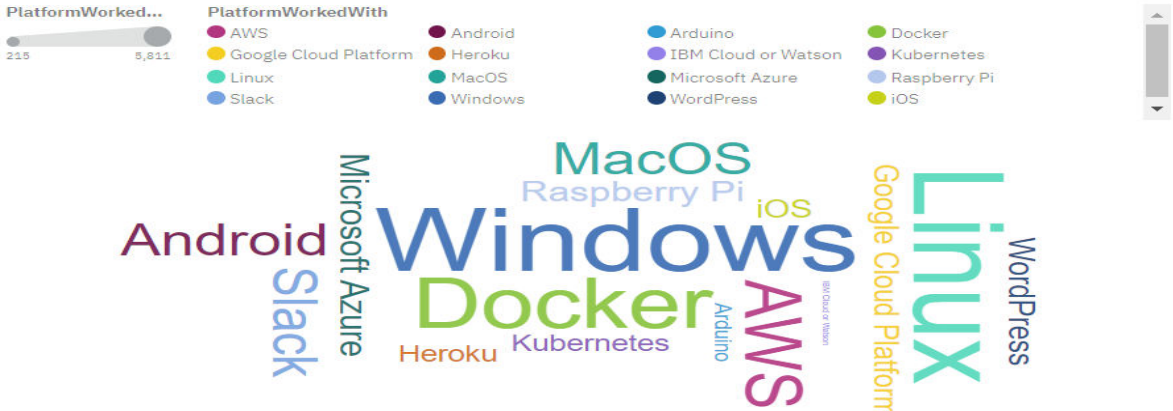
Top 10 languages used in this year



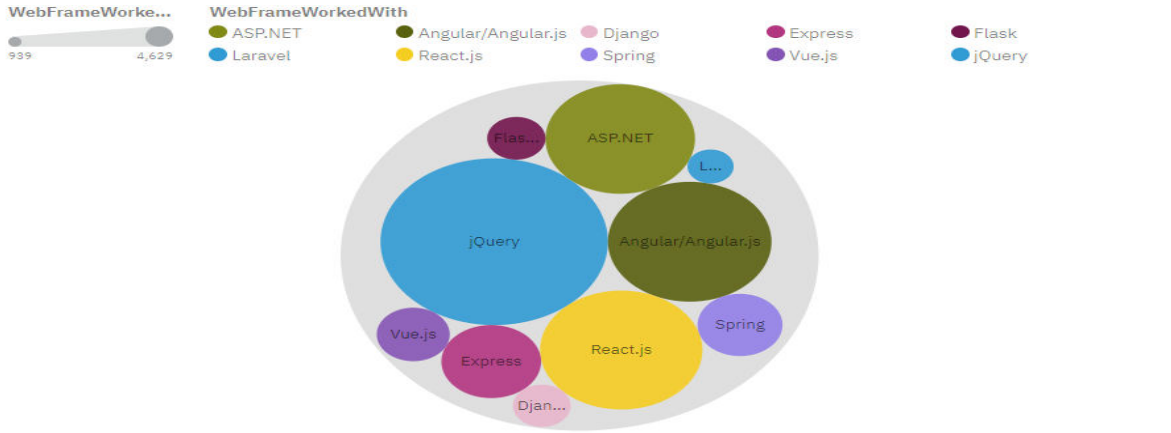
Top 10 Database worked with this year



Platform Worked With.



Top 10 WebFrame Worked With



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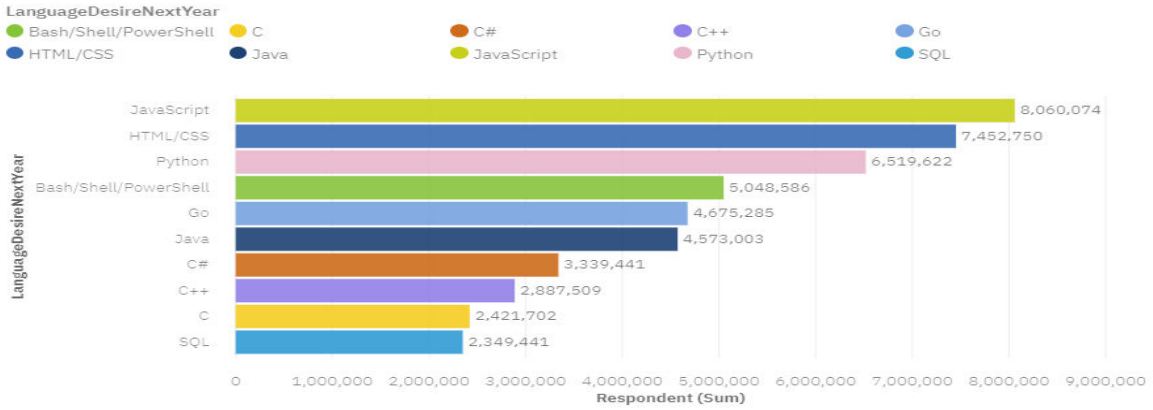
DASHBOARD TAB 2

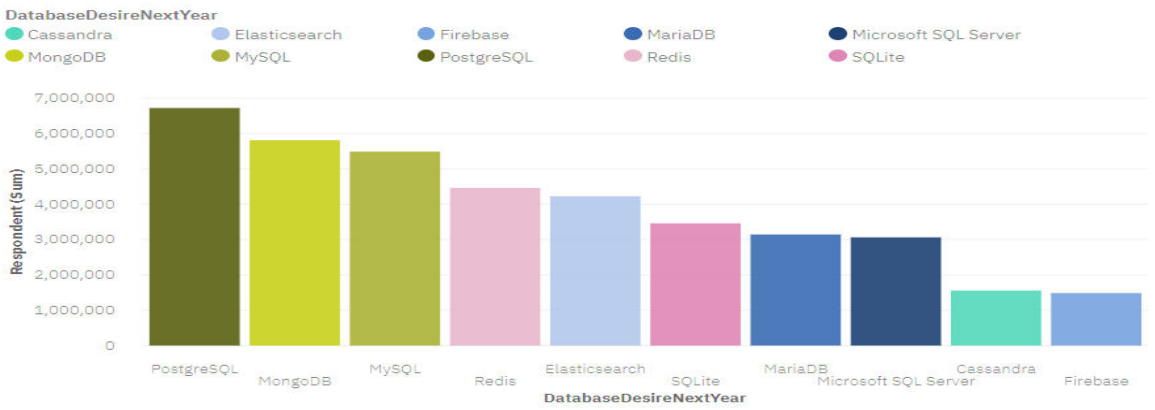
Filters

Current Technology Usage.-1 | Future Technology Trend. | Demographics.

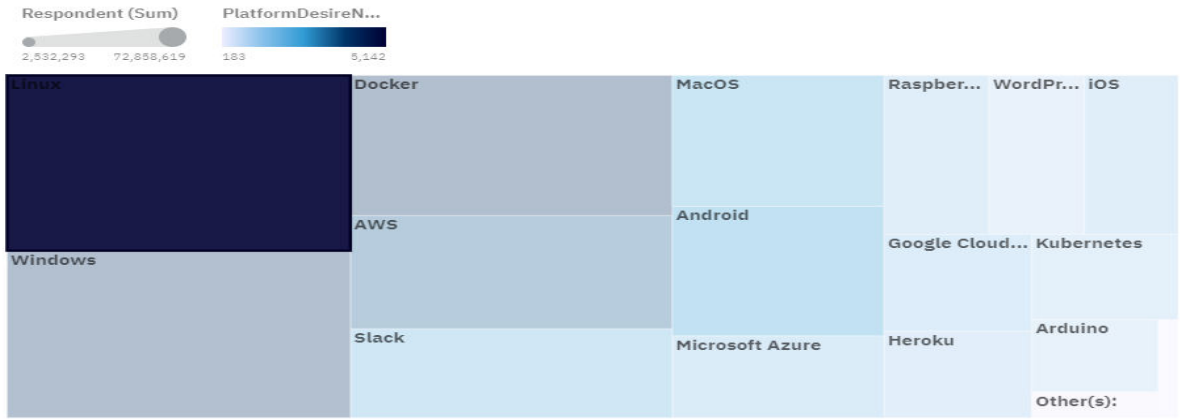
TOP 10 LANGUAGES DESIRED NEXT YEAR



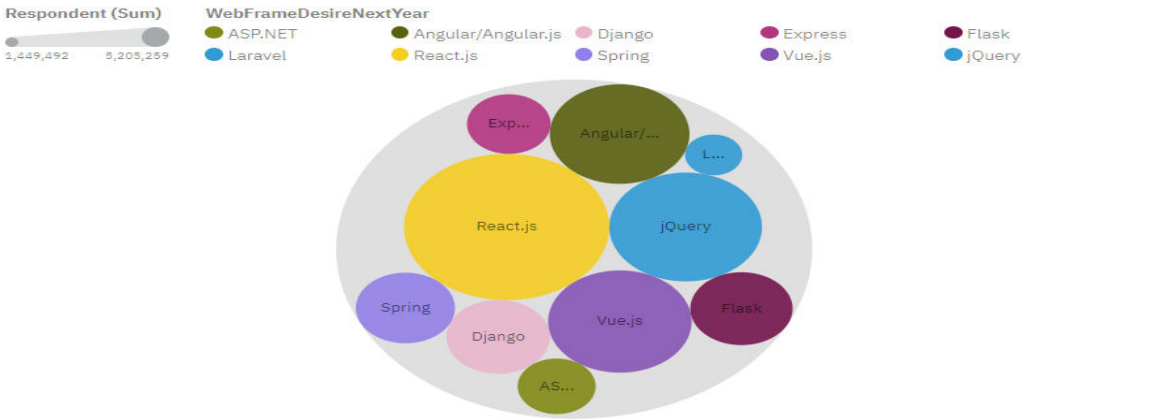
Top 10 Database Desire Next Year.



Platform Desire Next Year



Top 10 WebFrame Desire Next Year.



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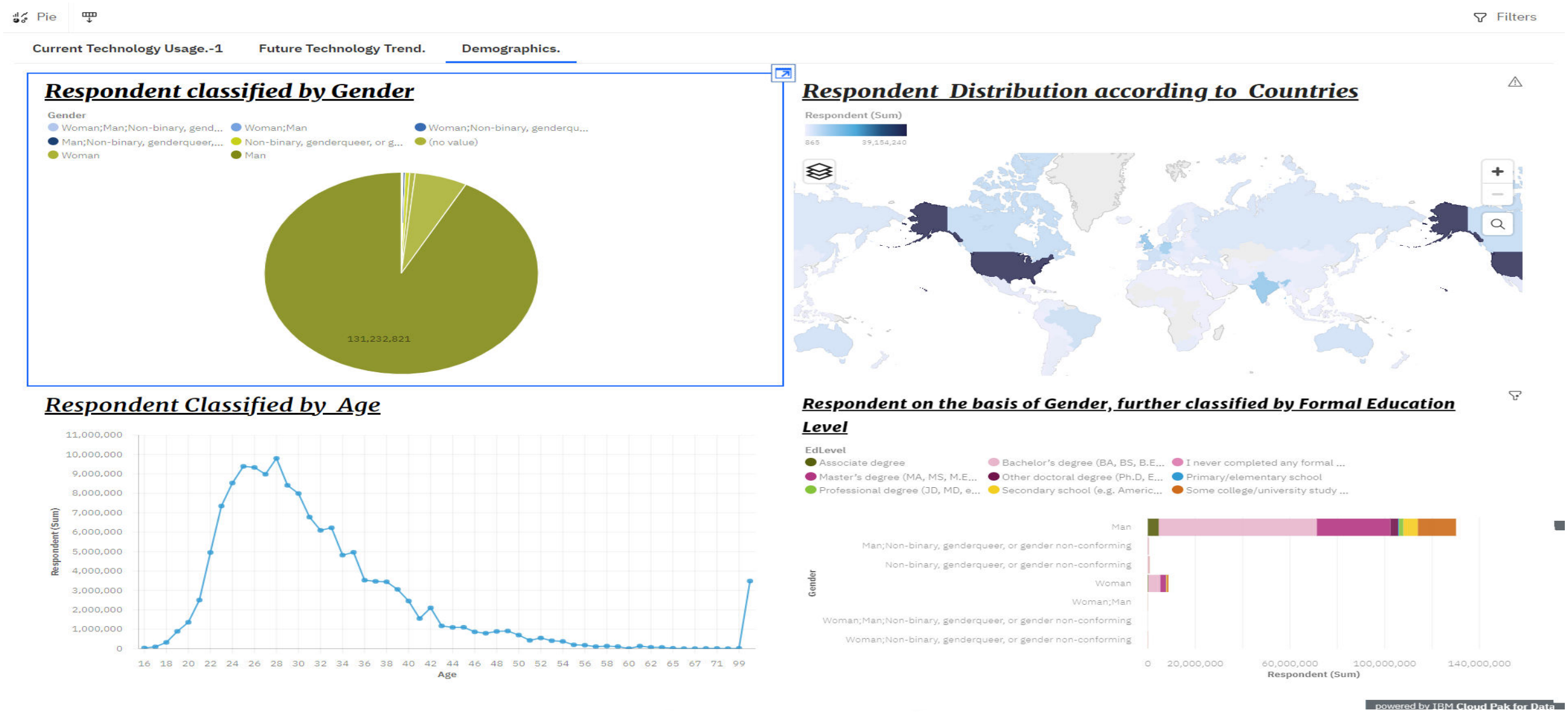
DASHBOARD TAB 3



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DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- Python, the fastest-growing major programming language, has risen in the ranks of programming languages.
- Edging out Java this year and standing as the second most loved language (behind Rust).
- Over half of respondents had written their first line of code by the time they were sixteen, although this experience varies by country and by gender.

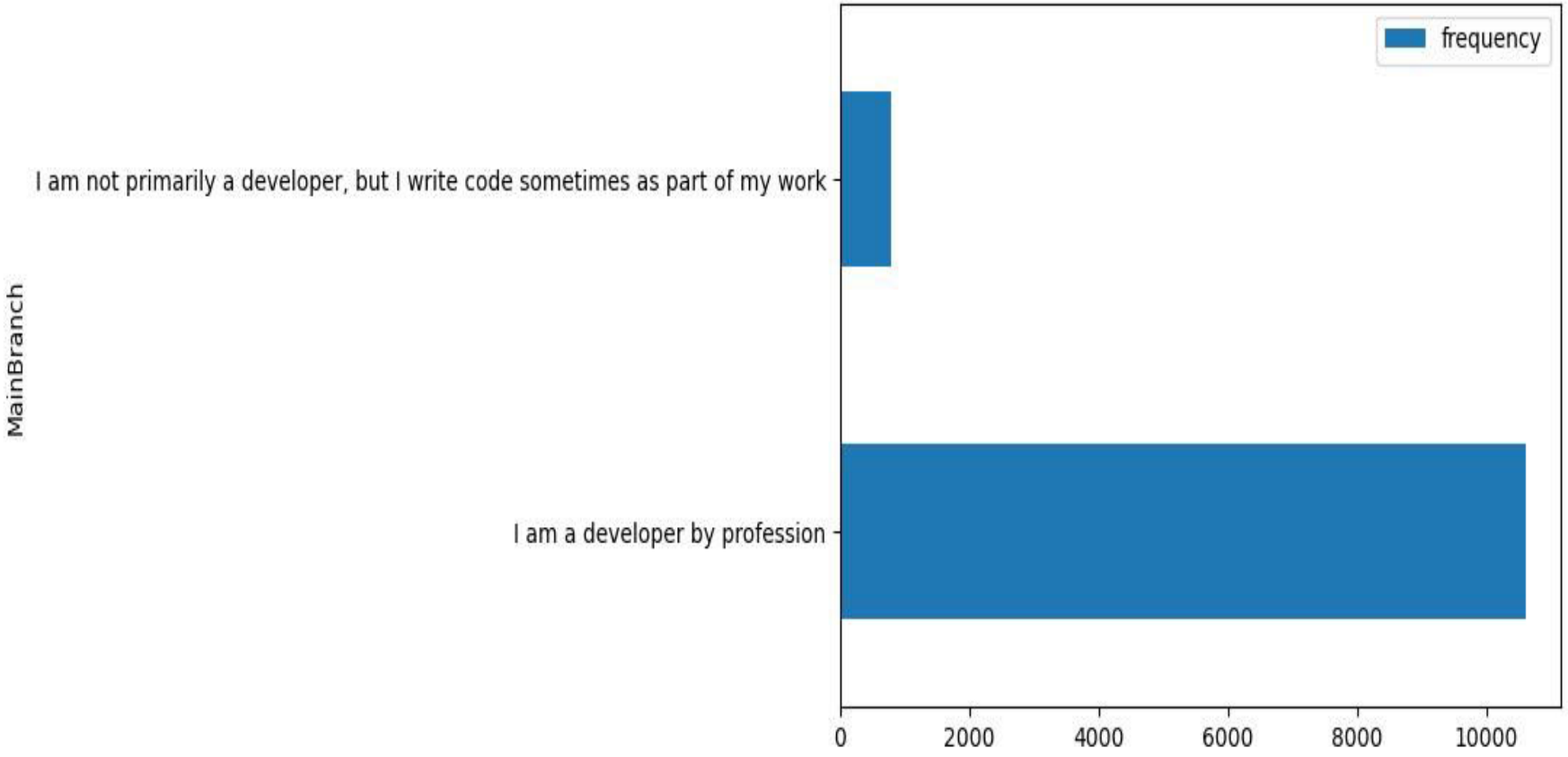
Implications

- More than 90% of young male especially with bachelor degree are leading the world to new coding era.
- Only developed countries are progressing towards development
- Linux will be ruling the platform for developers. Change in shift from windows to Linux is visible.
- JavaScript has gained huge programmers in both language and web frame fields.

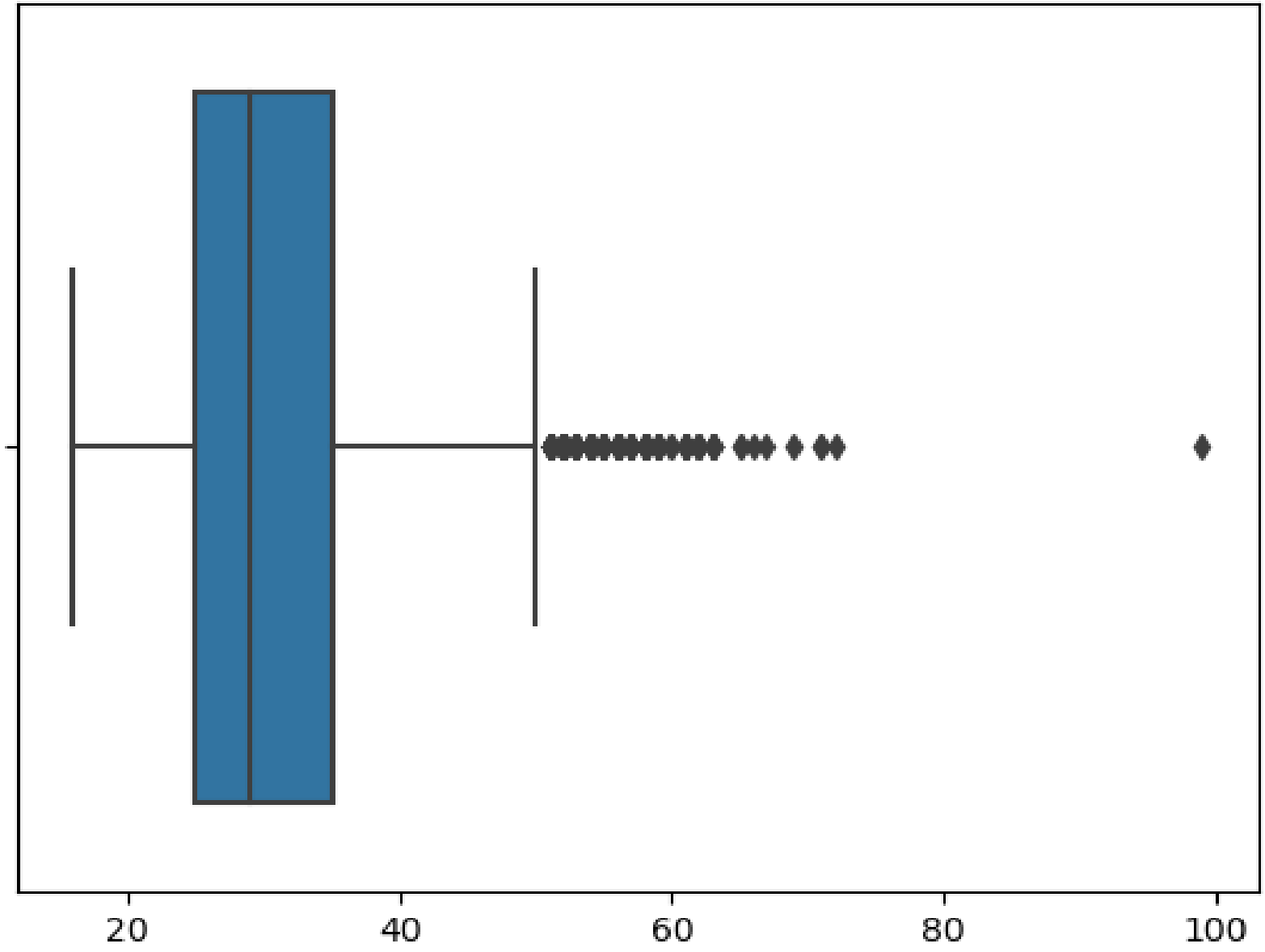
CONCLUSION

- Developed countries with its young male population of Bachelor Degree are setting up a wide platform for coding.
- US and India are going to become a huge coding hub with lots of innovation and development
- A good popularity of trends of languages , platform and web frames are obtained.
- Developing countries are in transition phase towards developer era.

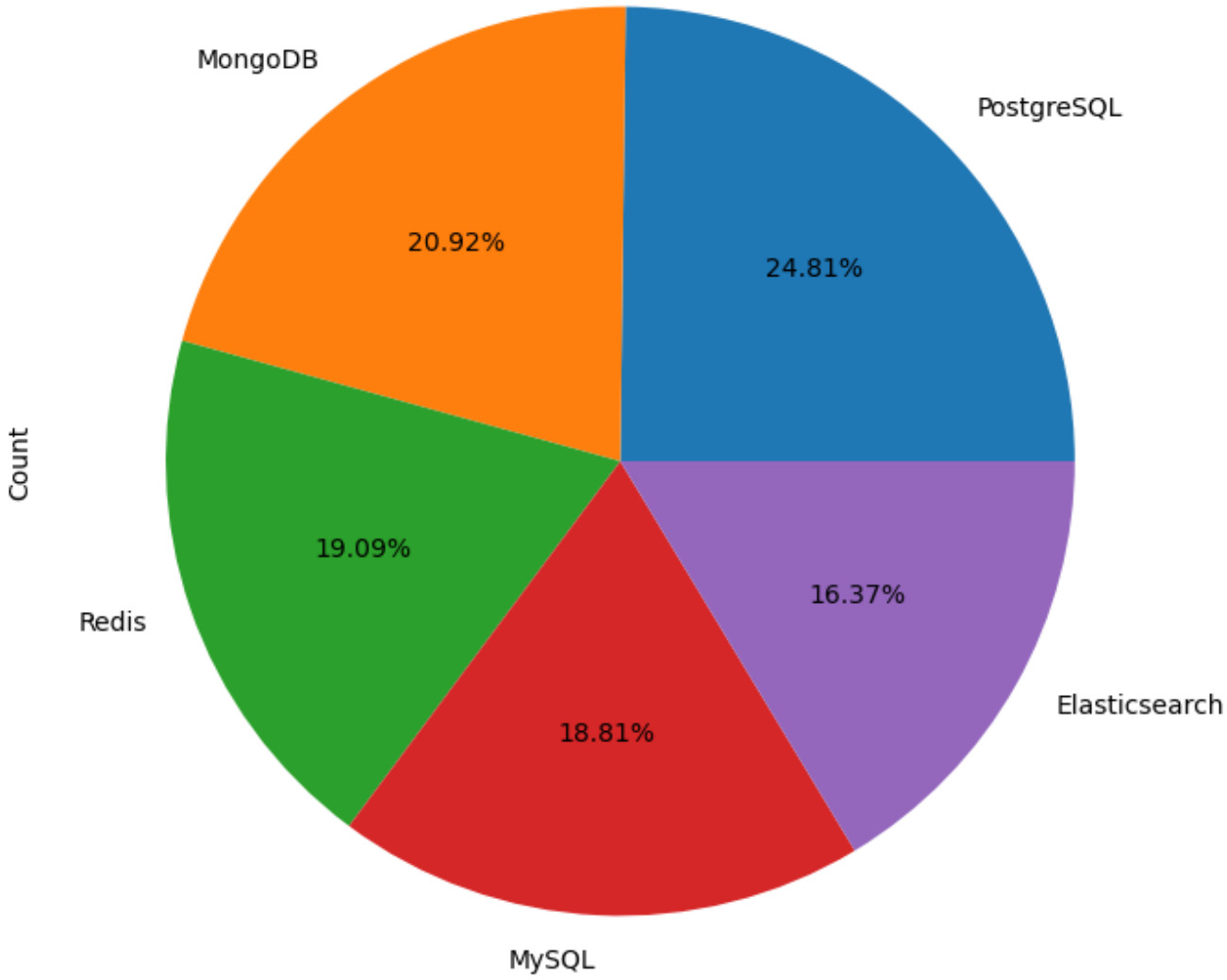
APPENDIX


frequency
I am not primarily a developer, but I write code sometimes as part of my work
I am a developer by profession
MainBranch
0
2000
4000
6000
8000
10000

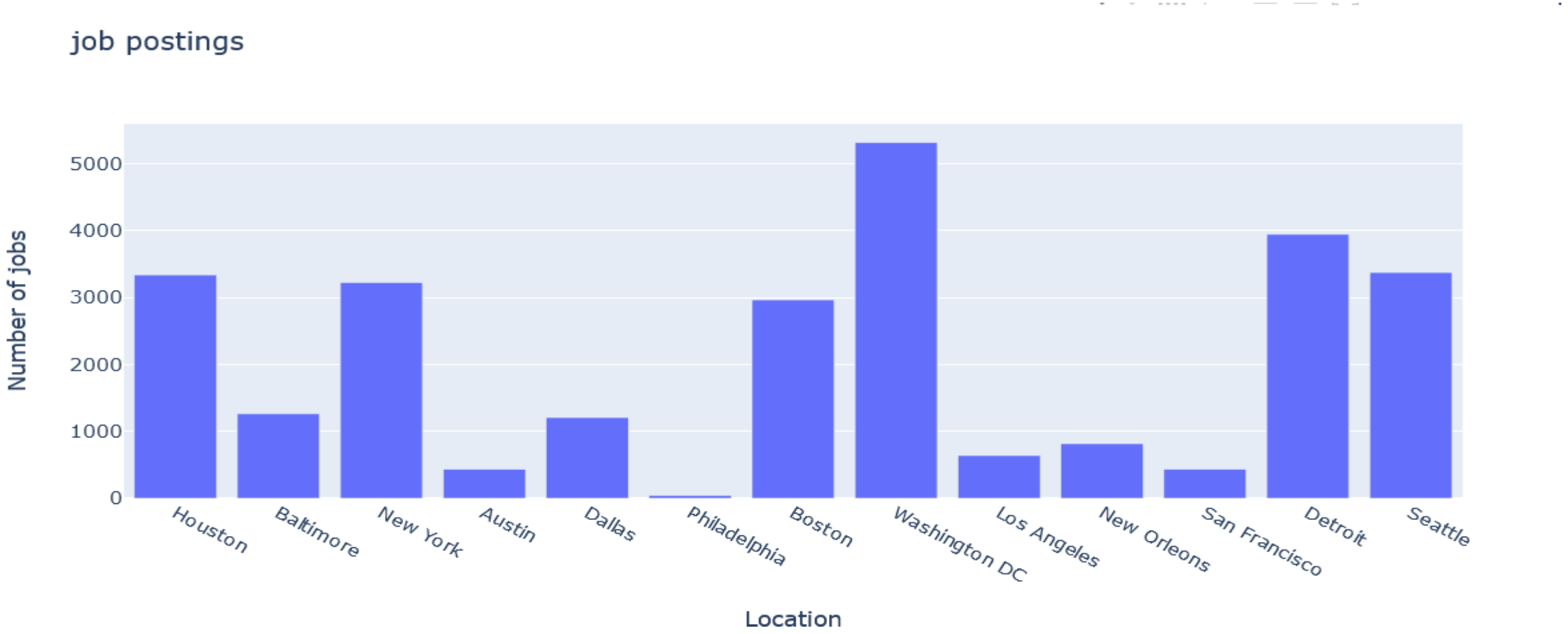
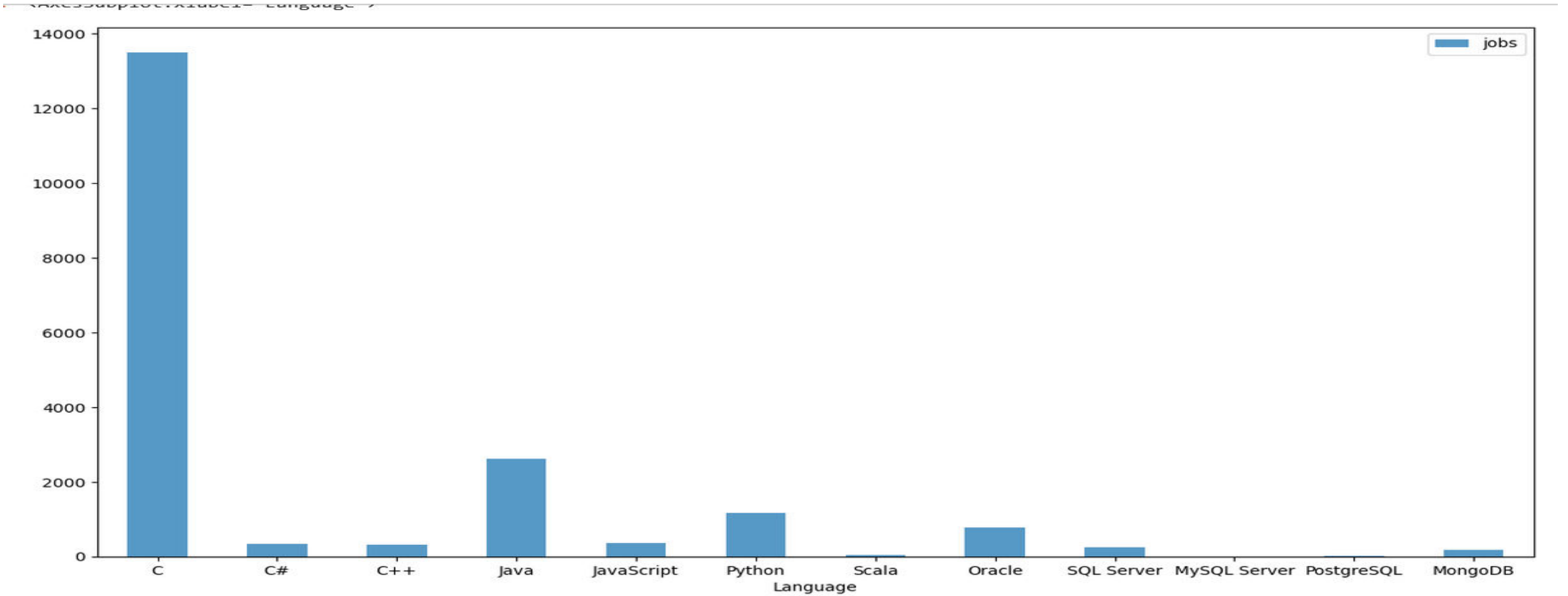
Boxplot of Age



Pie chart of the top 5 databases that respondents wish to learn next year



JOB POSTINGS



POPULAR LANGUAGES