

Current Technology Usage & Future Trends

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OUTLINE

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- ▶ Appendix



EXECUTIVE SUMMARY

Current Technology Usage

Top 10 Languages

Top 10 Databases

Platforms

Top 10 Web Frames

Technology Trends for the Next Year

Top 10 desired Languages

Top 10 desired Databases

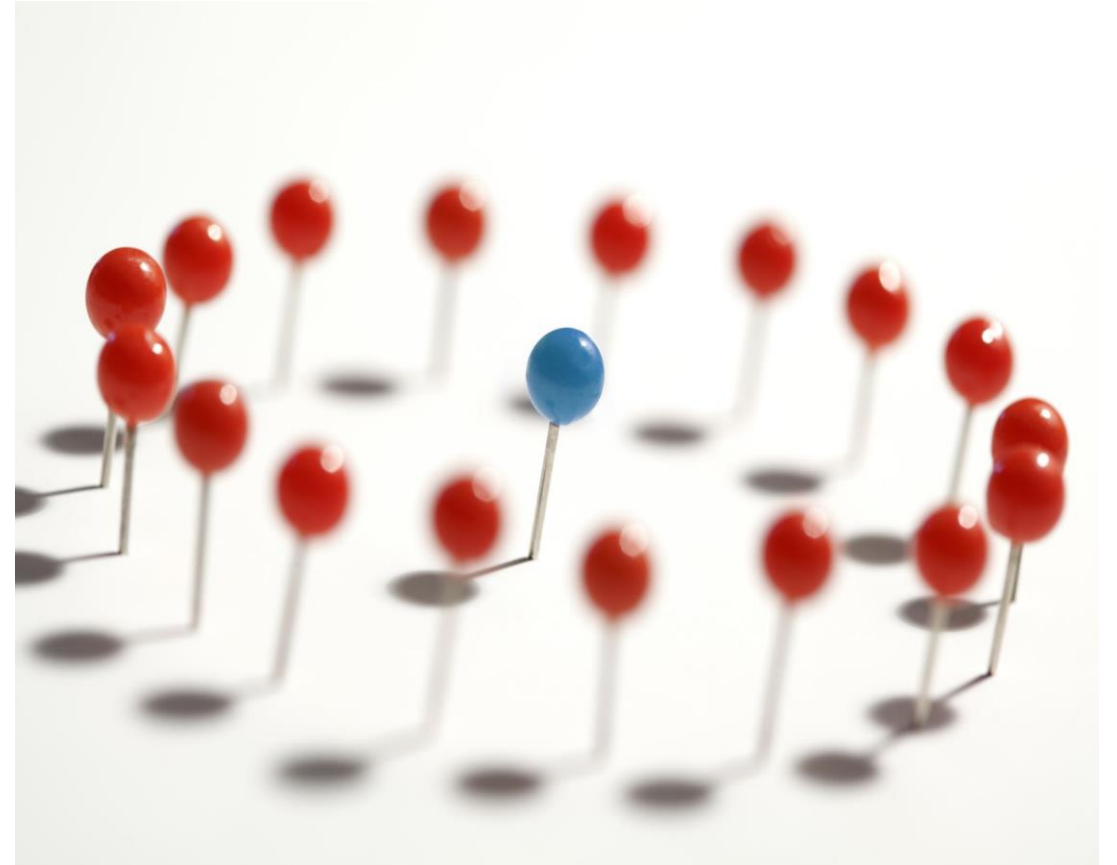
Desired Platforms

Top 10 desired Web Frames

Demographics

Classified by Gender, per Countries

Count by Gender and Classified by Education Level



INTRODUCTION



Nature of Analysis:

- ▶ Analyzing the trends in software development and the usage by demographics
- ▶ Purpose of the Analysis:
- ▶ What are the top programming languages being used today?
- ▶ What are the top databases being used currently?
- ▶ What Languages and databases will be popular next year?
- ▶ How do demographics in gender, age and region differ from one another?

METHODOLOGY

Data Collection:

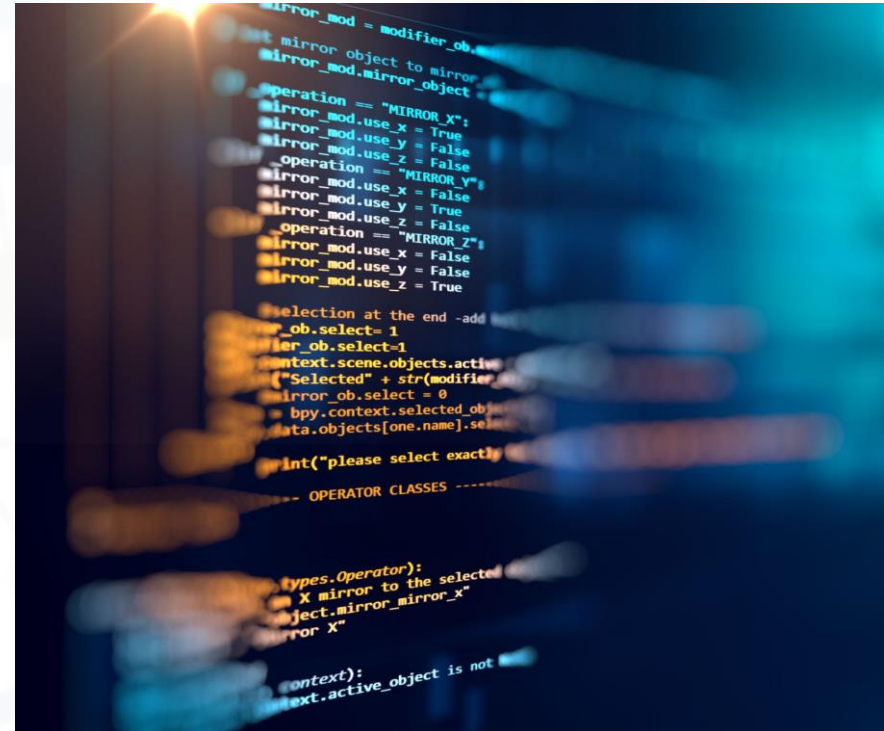
<https://stackoverflow.blog/2019/04/09/the-2019-stack-overflow-developer-survey-results-are-in/>

Data Wrangling

Data Exploration

Data Cleaning

Data Visualizations

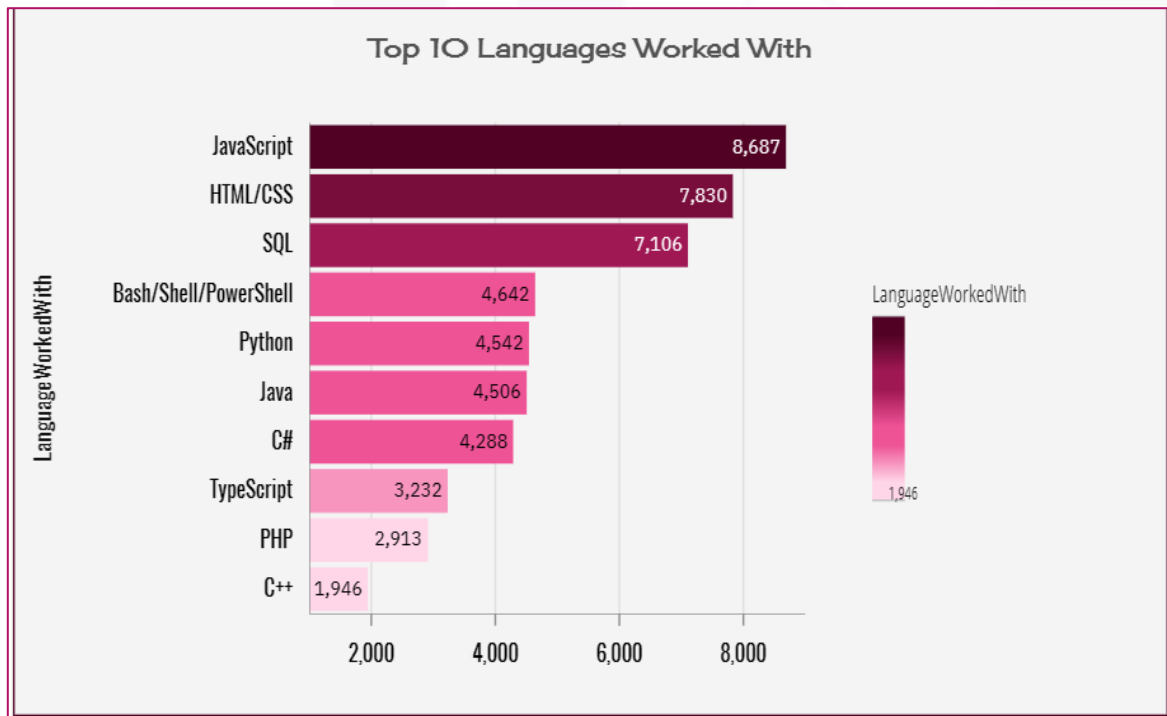


RESULTS

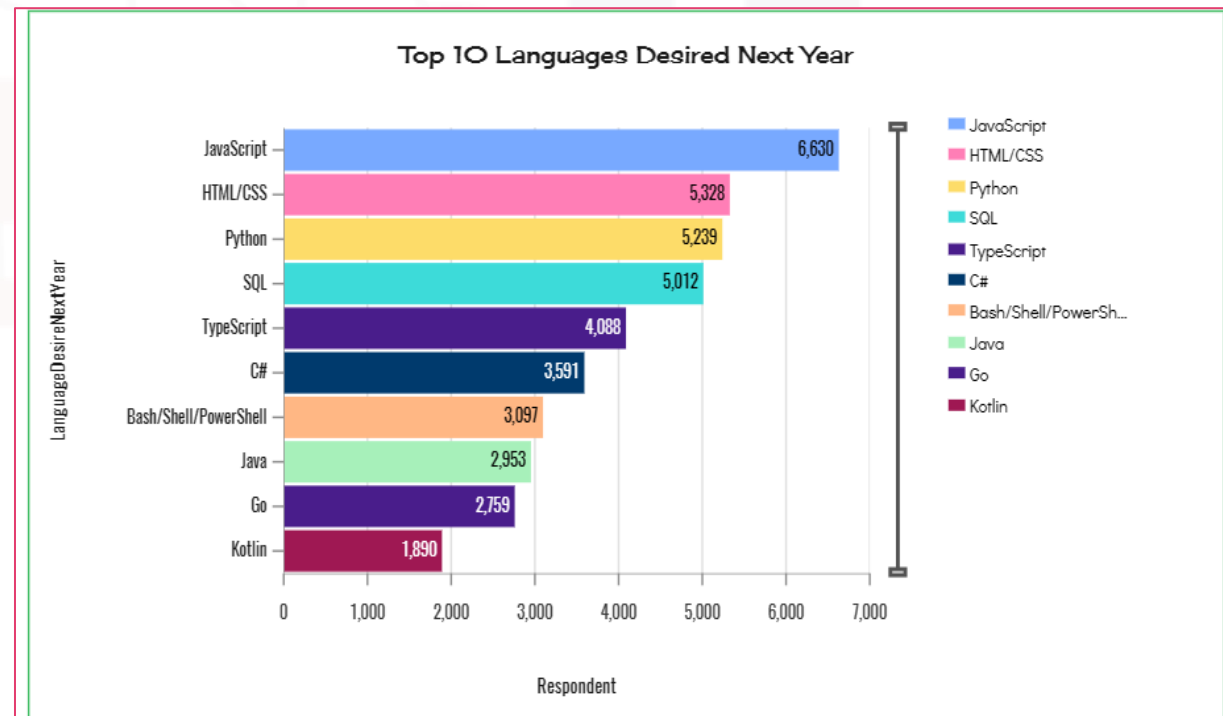
	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear	PlatformWorkedWith
0	4	C	C	MySQL	MySQL	Linux
1	4	C++	C#	SQLite	SQLite	Windows
2	4	C#	JavaScript	NaN	NaN	NaN
3	4	Python	SQL	NaN	NaN	NaN
4	4	SQL	NaN	NaN	NaN	NaN
...
74584	25142	Go	Python	NaN	NaN	NaN
74585	25142	HTML/CSS	R	NaN	NaN	NaN
74586	25142	PHP	NaN	NaN	NaN	NaN
74587	25142	Python	NaN	NaN	NaN	NaN
74588	25142	R	NaN	NaN	NaN	NaN

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- ▶ JavaScript is the top trending language used currently.
- ▶ TypeScript is becoming more popular and will be used quite frequently in the coming years.
- ▶ JavaScript and HTML/CSS are the top programming languages that are favored and used around the world.

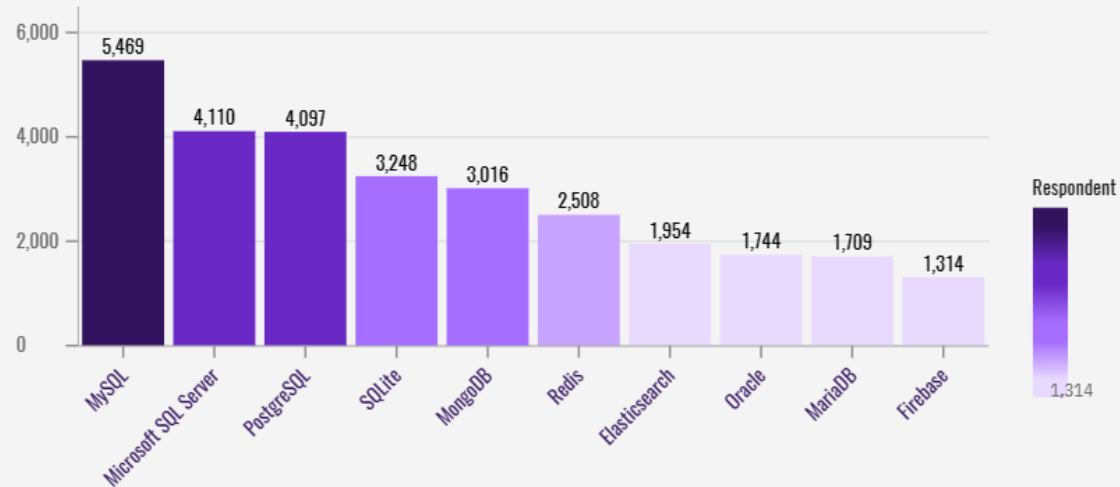
Implications

- ▶ Python is a popular language that is widely known and an in-demand Programming Language to know
- ▶ TypeScript along with JavaScript are languages needed to know when it comes to web developments
- ▶ People are more open to expanding the programming languages and learning new ones.

DATABASE TRENDS

Current Year

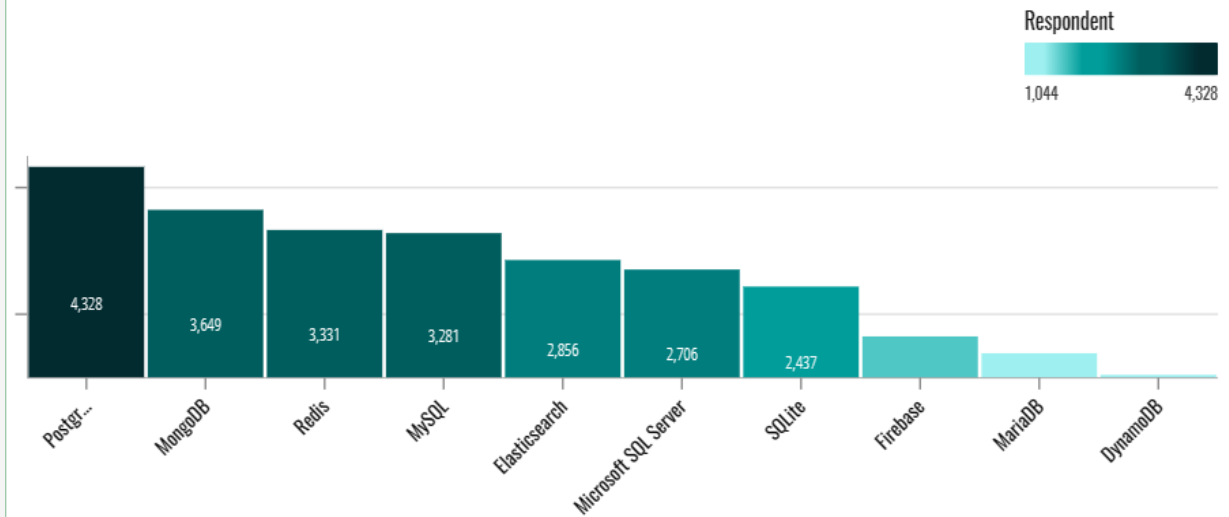
Top 10 Databases Worked With



DatabasesWorkedWith

Next Year

Top 10 Databases Desired Next Year



DatabaseDesiredNextYear

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- ▶ SQL databases are among the most popular databases used currently
- ▶ MongoDB is becoming more desirable to use within the coming year
- ▶ Oracle is becoming less desirable to learn whereas databases like Couchbase, is still the least popular database choice this year as well as upcoming years.

Implications

- ▶ Open-source databases are still the most desirable to learn and use
- ▶ NoSQL databases are desirable to use with relational databases
- ▶ PostgreSQL is becoming more desirable among respondents and becoming bigger than MySQL

DASHBOARD



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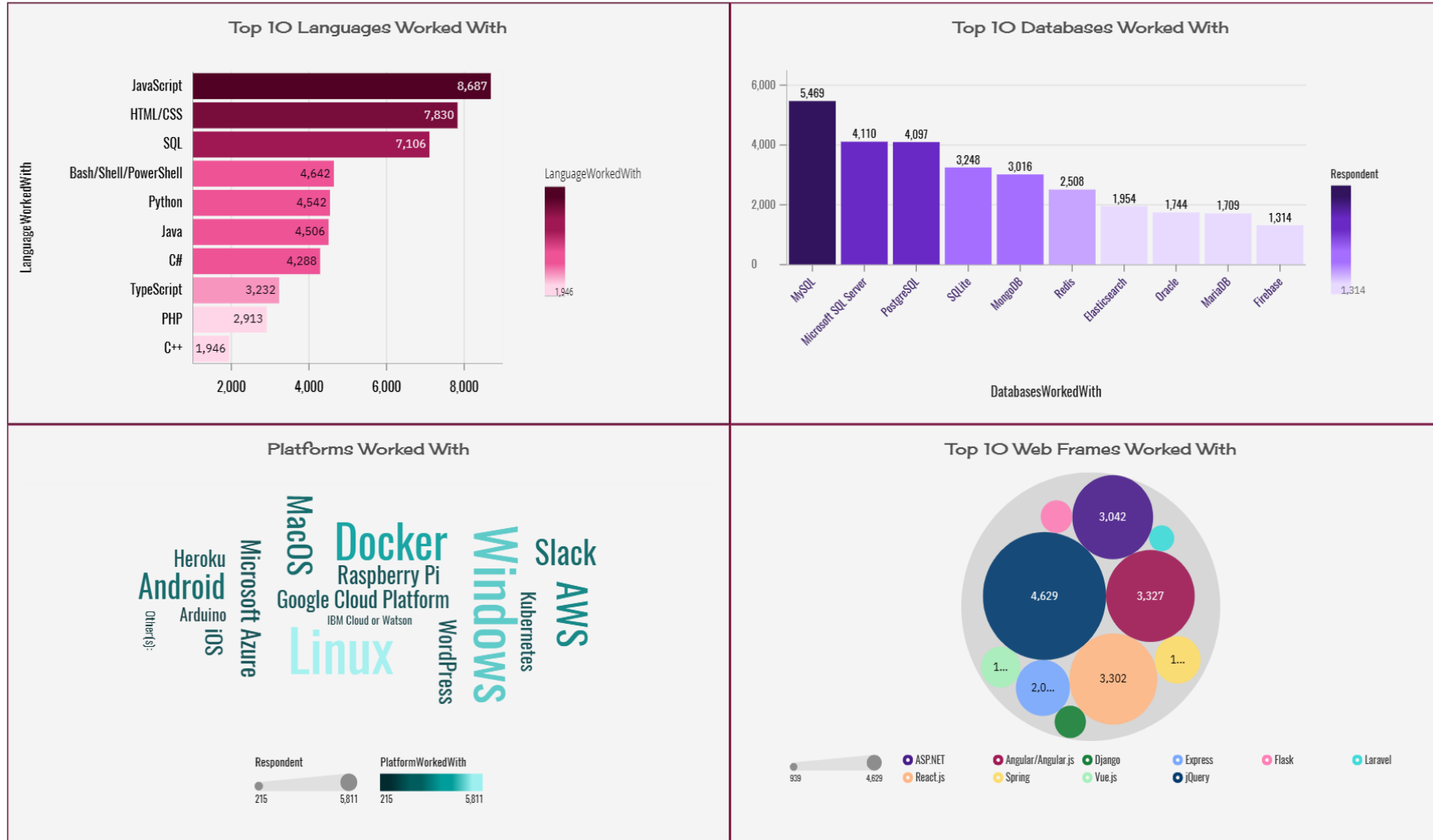
https://github.com/katieluwho132/README.md/blob/9917890a47e0dfac64dd289560fc4bbbd9a5e4b0/m5_Survey_Data_Dashboards.pdf

DASHBOARD TAB 1

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m5_Survey_Data_Dashboards

Current Technology Usage

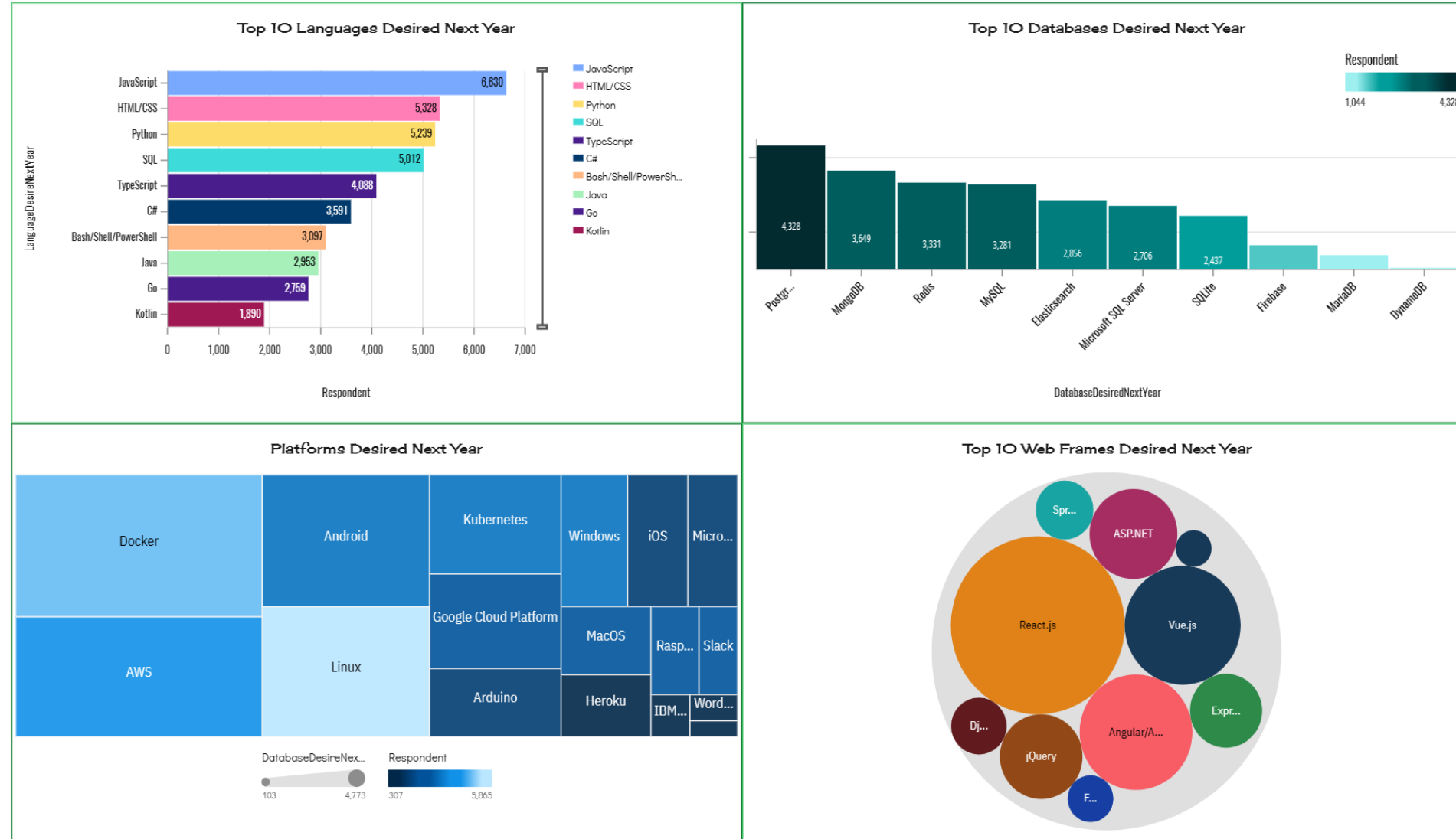


DASHBOARD TAB 2

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m5_Survey_Data_Dashboards

Future Technology Trend

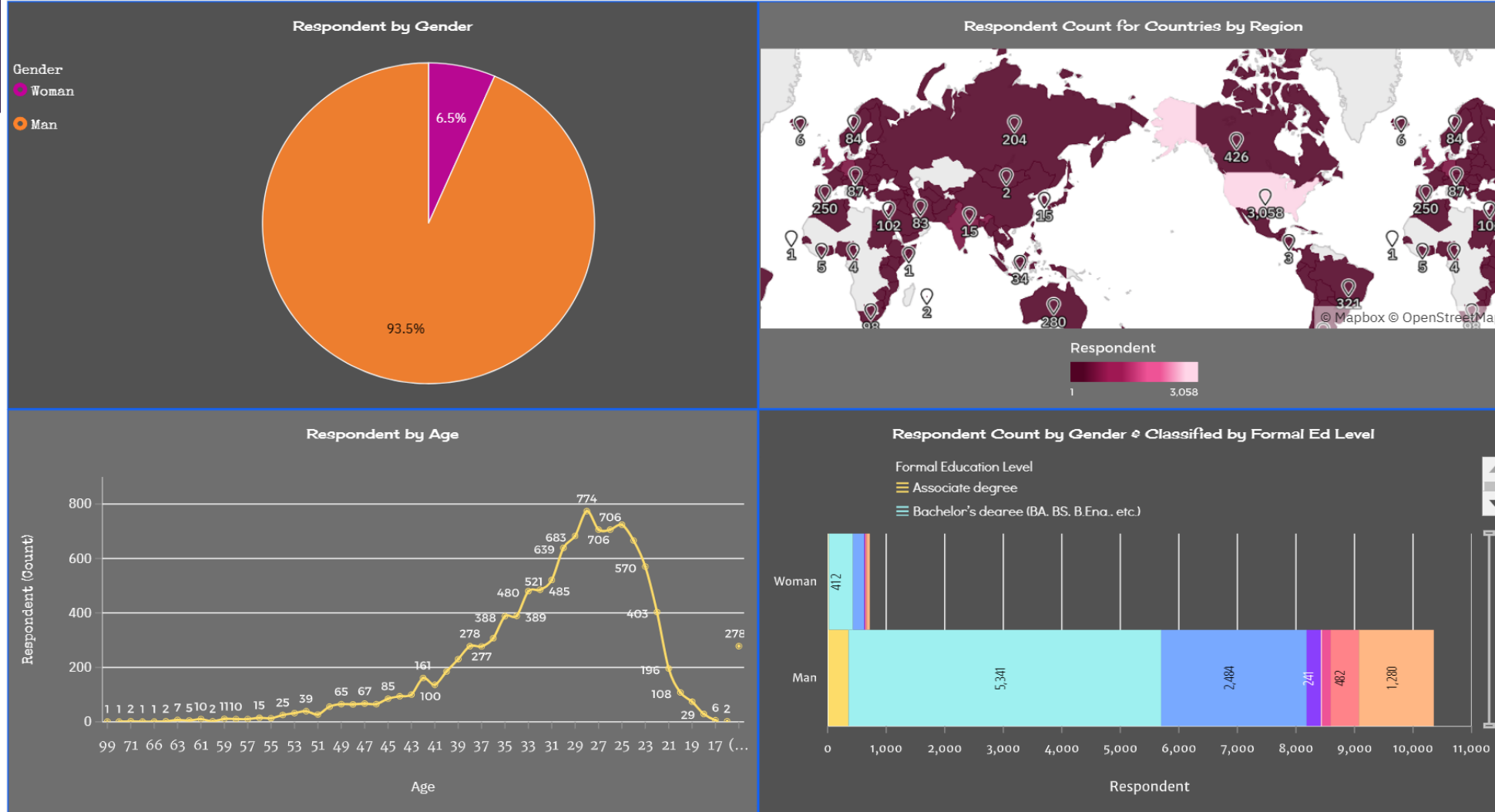


DASHBOARD TAB 3

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m5_Survey_Data_Dashboards

Demographics



DISCUSSION



- I. People with all different educational backgrounds were asked to partake in the survey
- II. People from all around the world in a multitude of different countries were included in the survey
- III. All genders and sexual orientations were included as well
- IV. Survey demographics come from a wide range of different backgrounds

OVERALL FINDINGS & IMPLICATIONS

Findings

- ▶ Programming Languages differ in popularity every year
- ▶ Docker along with AWS is the more desired platform to work with
- ▶ There are a lot more male than females in the Web Developing world, or at least that were asked for the participation of this survey

Implications

- ▶ Web Developers and Programmers should stay up to date with the newest and most desired programming languages, databases and platforms because they are always changing.
- ▶ Technology is vastly growing and new ways to use it and build with it will always be crucial to learn and understand

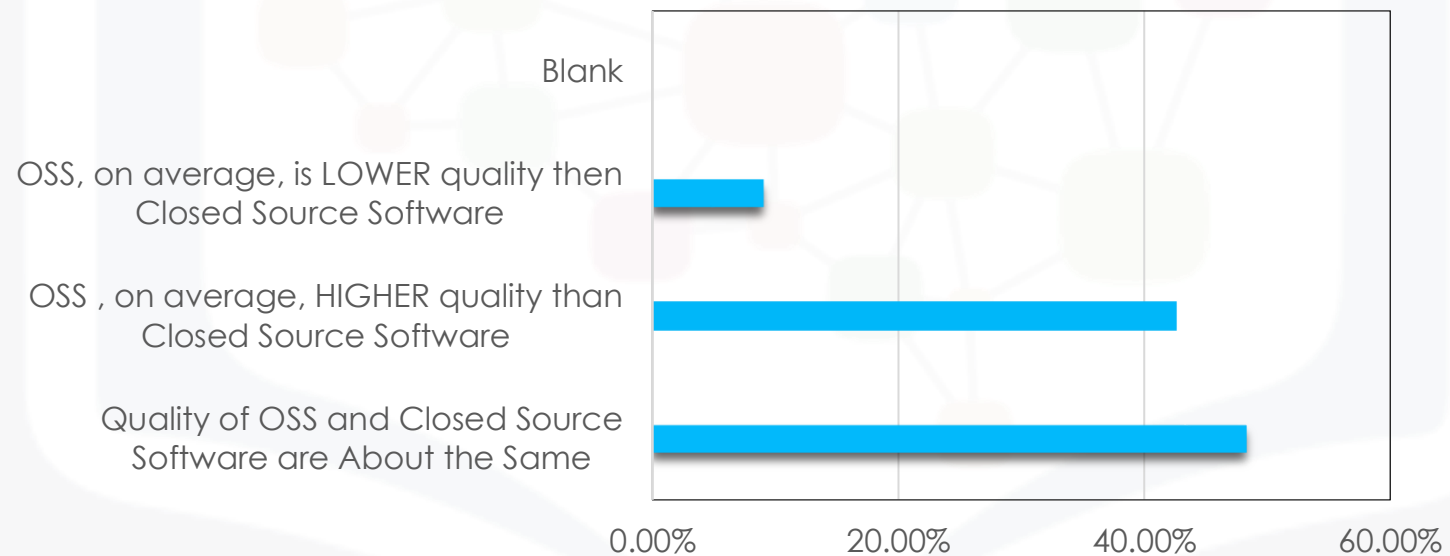
CONCLUSION



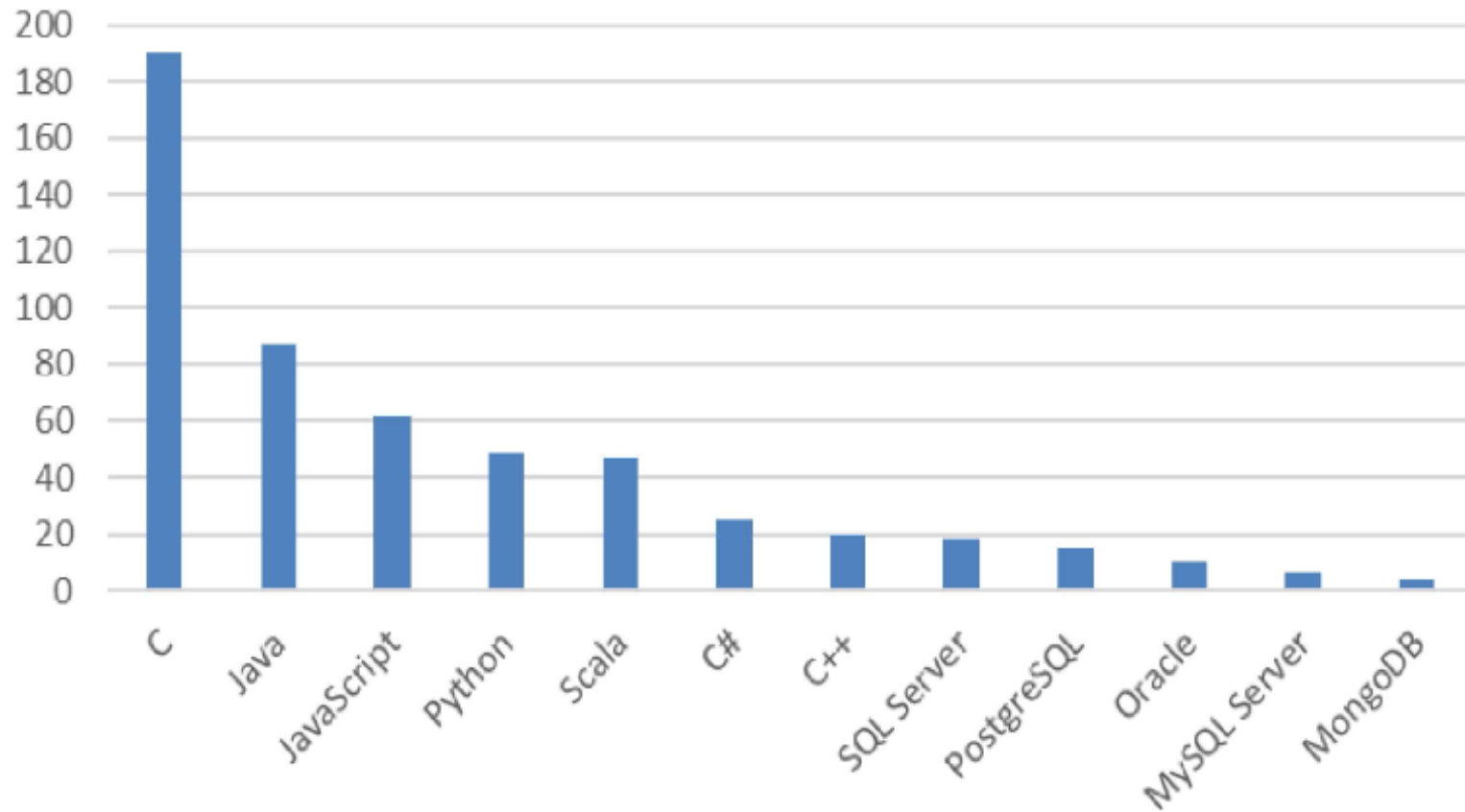
- ▶ Technology Trends now and to come
- ▶ Programming Languages, Databases and Platform Trends being used and growing in popularity
- ▶ Demographic Trends
- ▶ Countries by gender with classification by formal education level trends

APPENDIX

% of Opinions regarding the use of Open Source Software

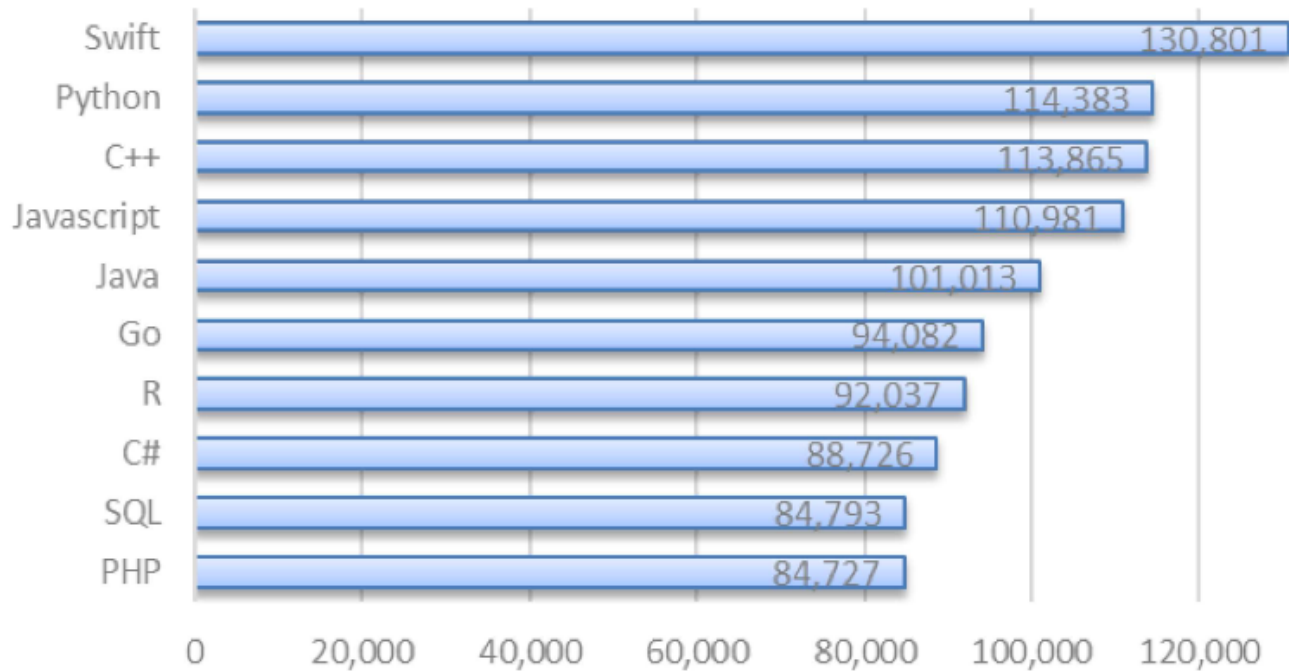


number of job posting



JOB
POSTINGS

Popular languages and their average annual salary



POPULAR LANGUAGES