<STACK OVERFLOW DEVELOPER SURVEY 2019>

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OUTLINE

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EXECUTIVE SUMMARY

- Relevant skills required in the field of IT and business consulting are ever-changing and evolving.
- It is important to identify future skill requirements and trends to keep pace with changing technologies and remain competitive.
- This presentation will show current and future trends in Programming Languages, Databases, Platforms and WebFrames
- Overall, the aim in identifying future skill requirements and trends is to help the firm make more informed datadriven hiring and budgetary decisions

INTRODUCTION

- This presentation has been created for stakeholders and business decision makers within the global IT and business consulting services firm.
- The presentation will help identify future skill requirements in the global IT sector necessary for the firm to keep pace with changing technologies and remain competitive.
- Recommendations will be stated based on the analysis.

METHODOLOGY

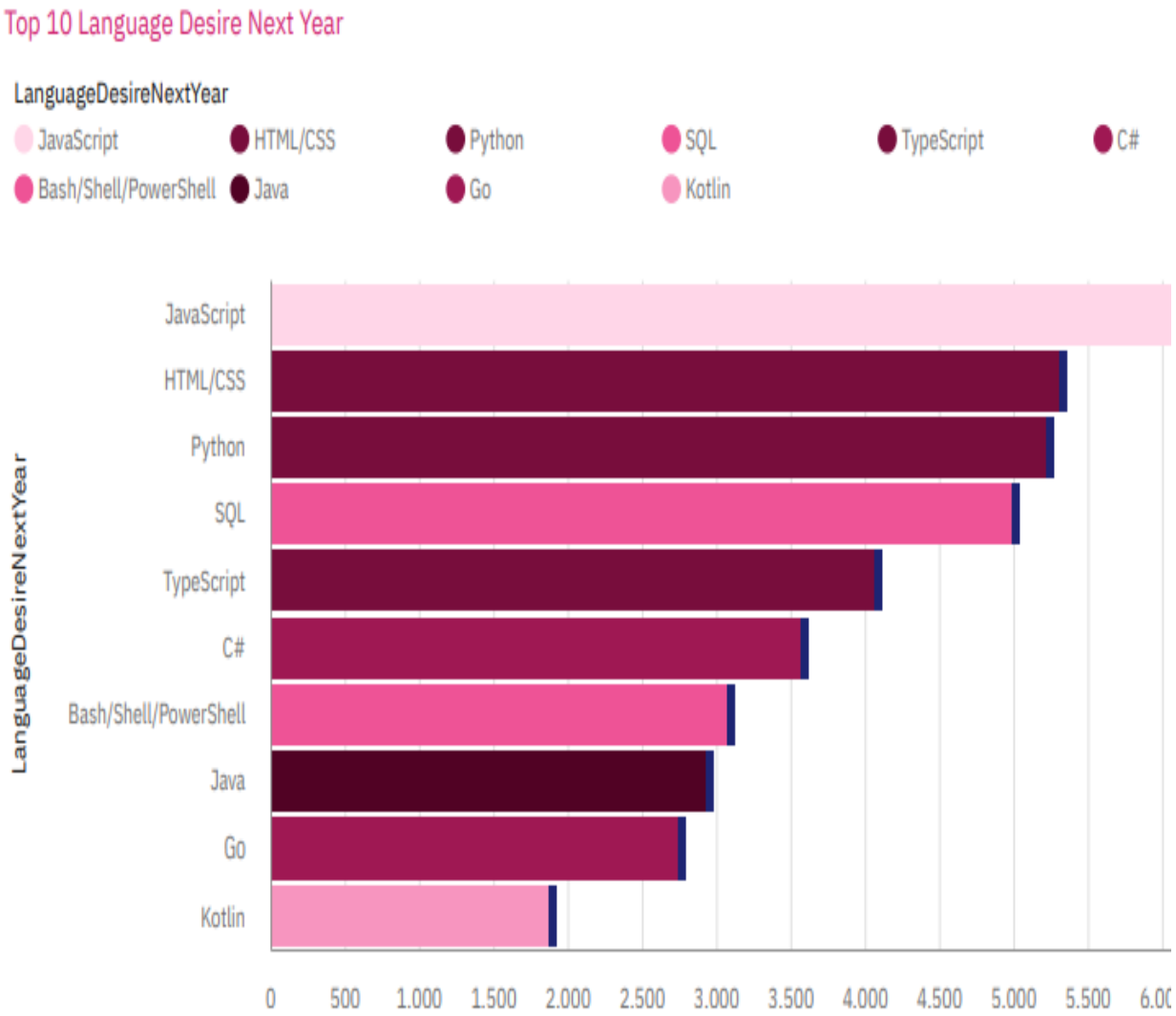
• Using a modified subset of the Stack Overflow dataset[1], the data was wrangled in order to remove duplicates, impute missing values and normalize data.

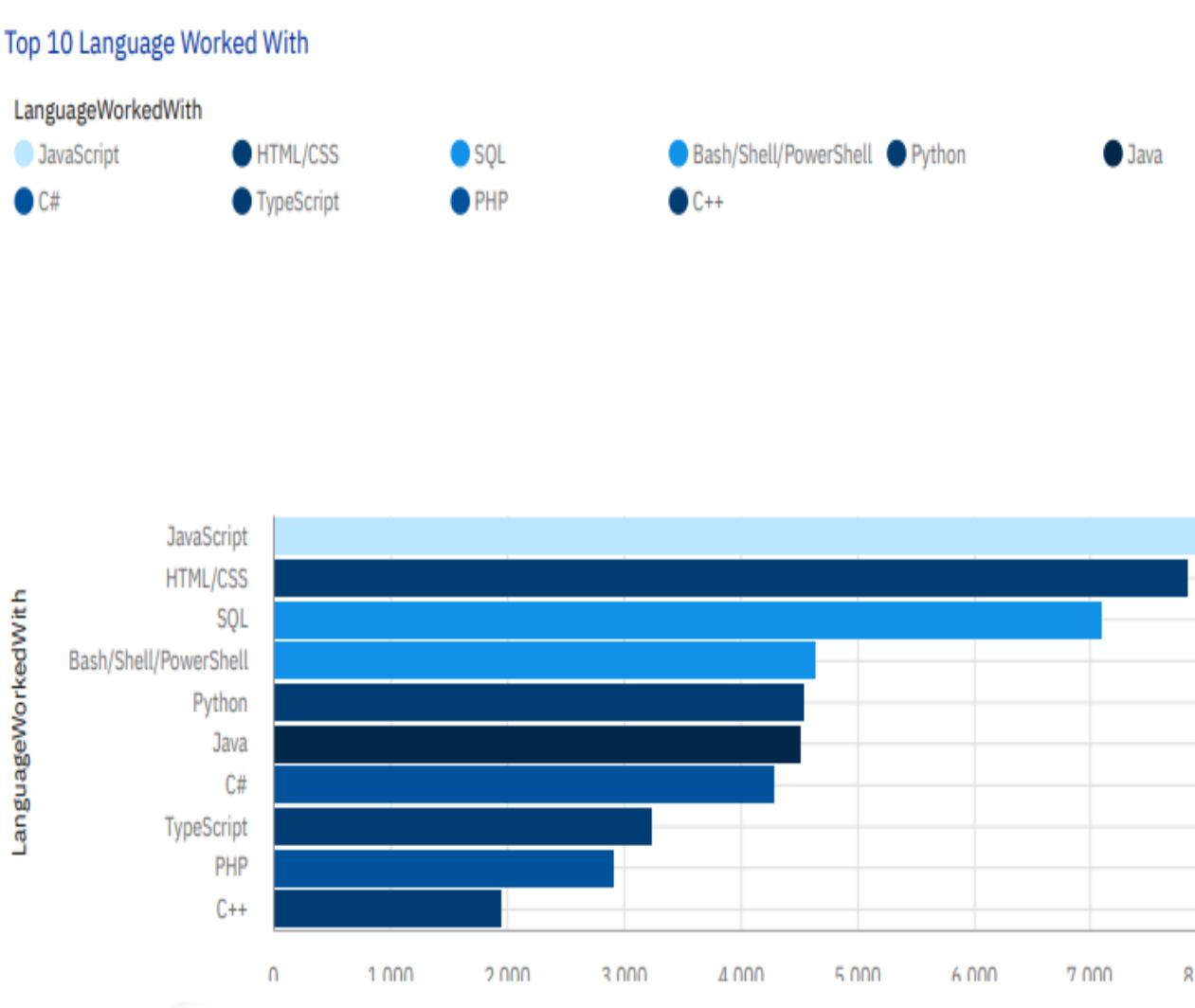
• Next, the data underwent exploratory analysis in order to find the distribution of data, presence of outliers and determine the correlation between different columns in the dataset.

• The data was then used to visualize the distribution, the relationship between two features and the composition and comparison of data.

• Finally, after downloading two files[2], which are also a modified subset of the StackOverflow dataset, Cognos Dashboard Embedded (CDE) was used to create the “Current Technology Usage”, “Future Technology Trends” and “Demographics” slides. • Appendix • To obtain average annual salaries web scraping was used to extract information from a website then saved to a csv file

Programming language trends





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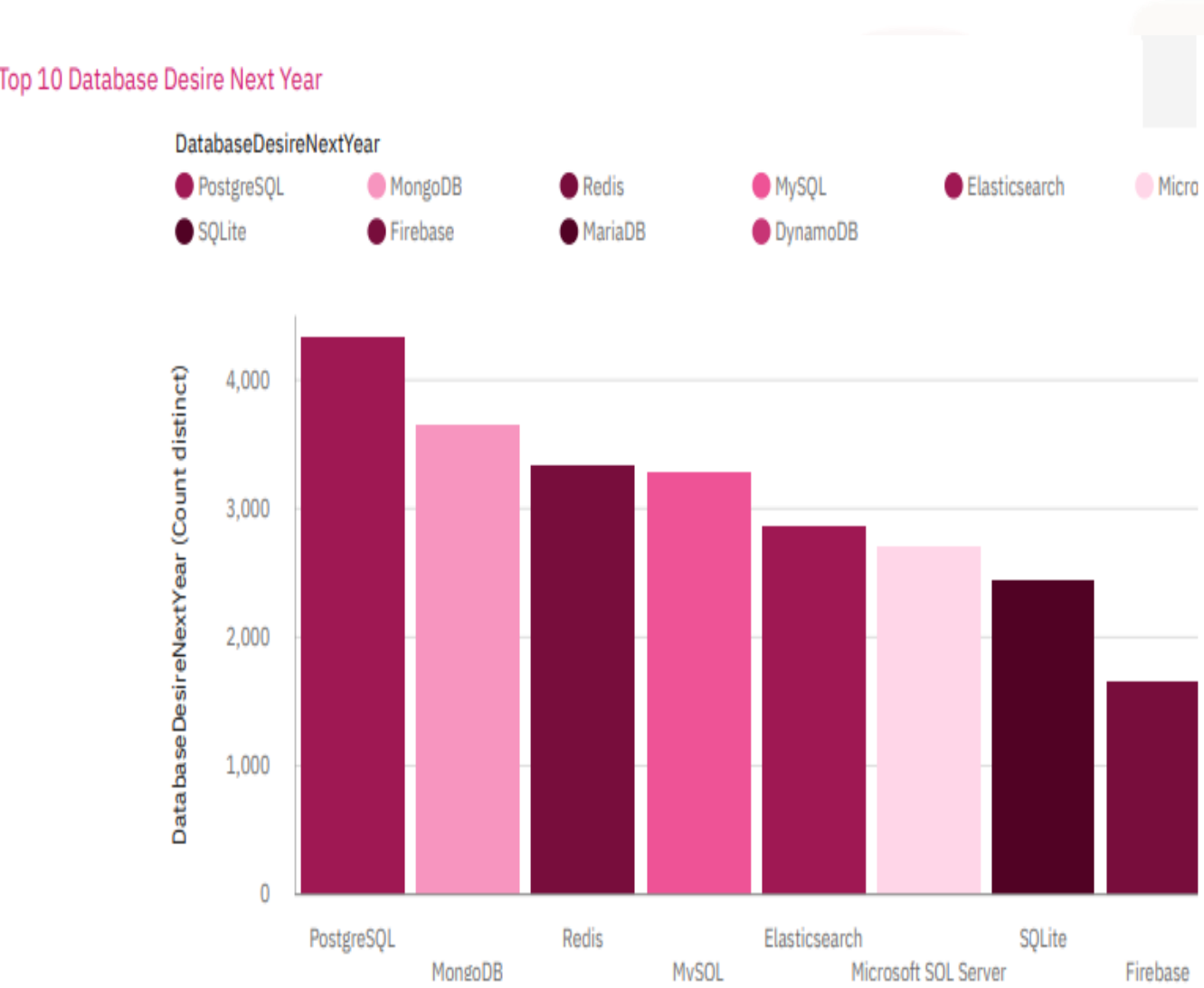
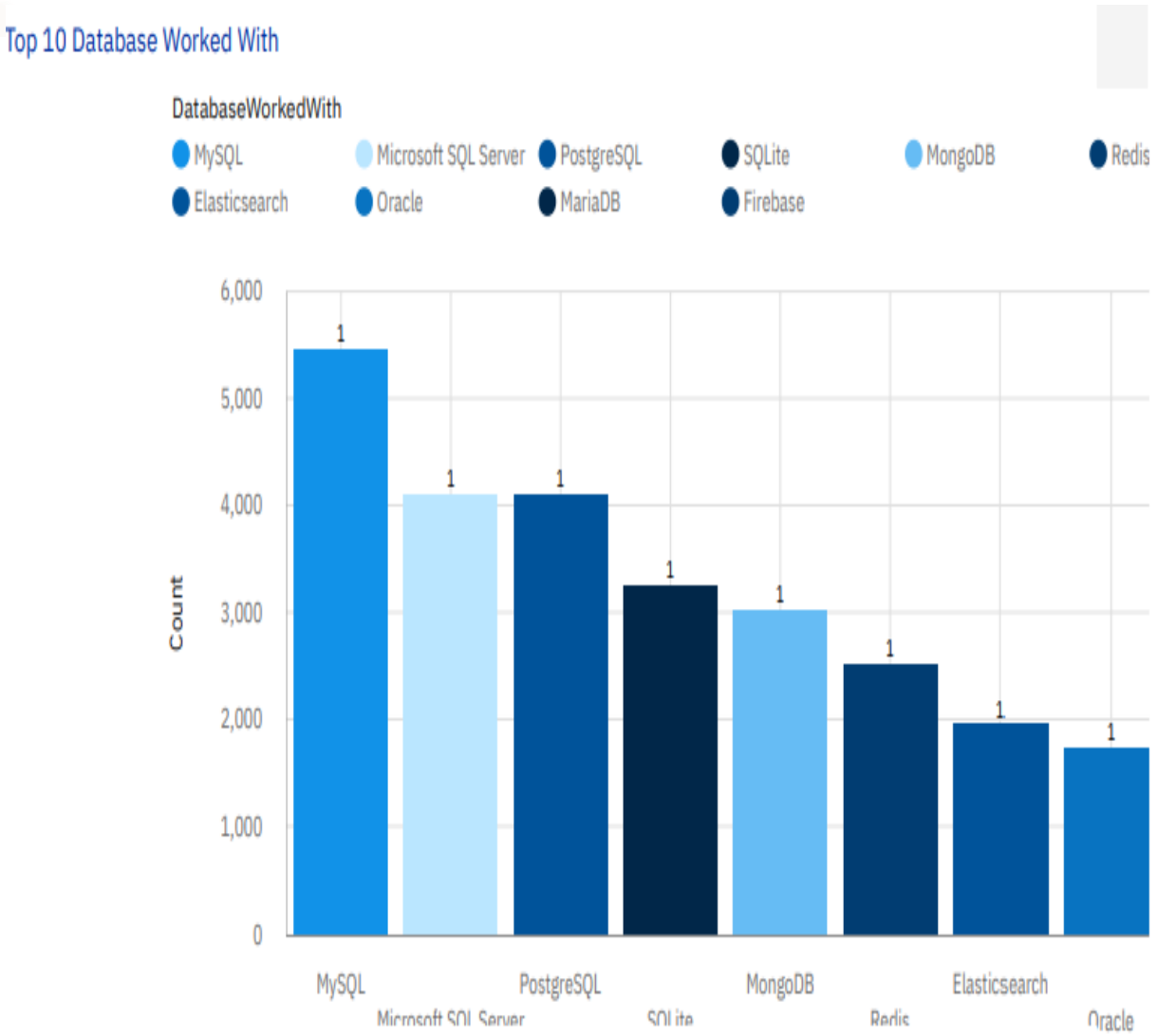
SKILLS NETWORK

Top 10 Database trends





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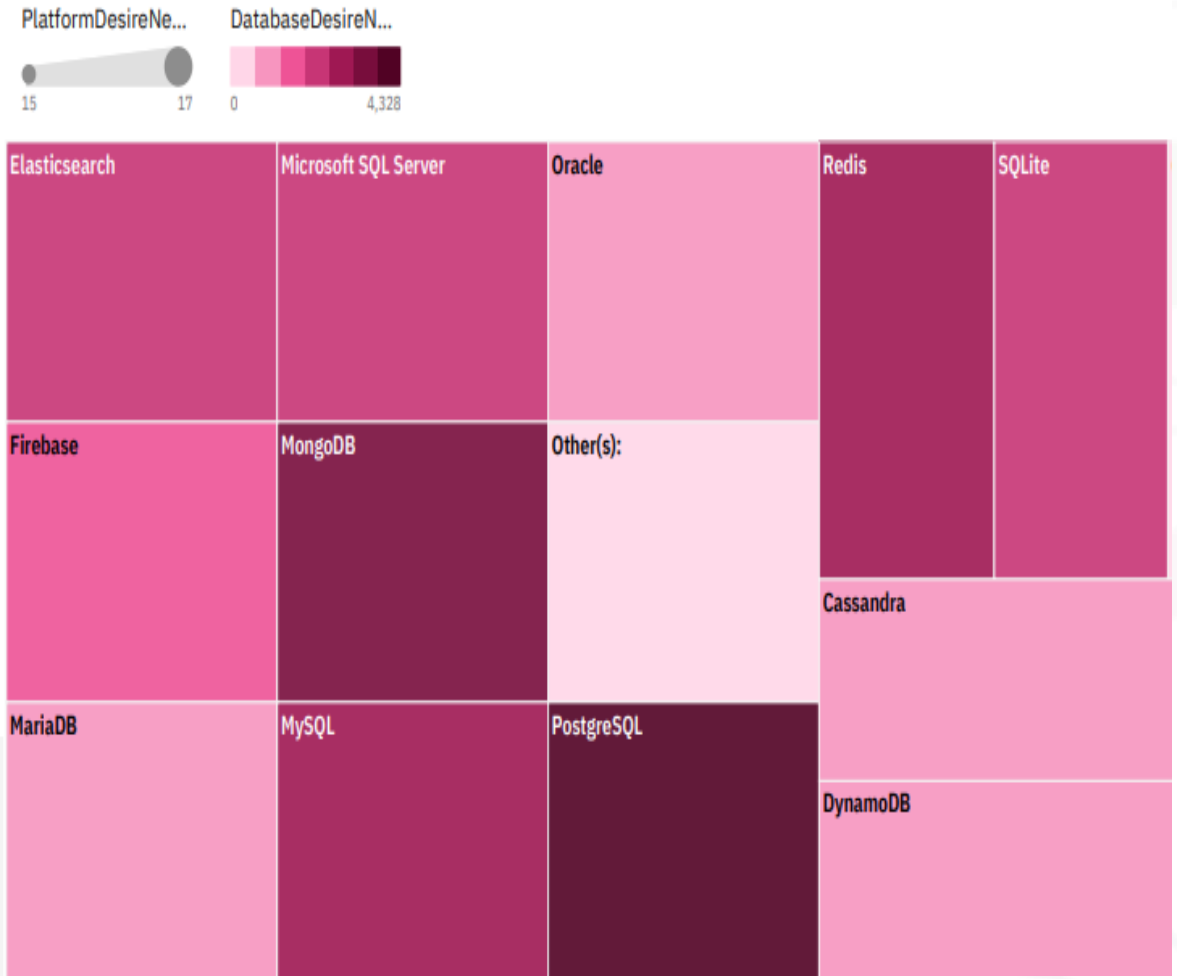
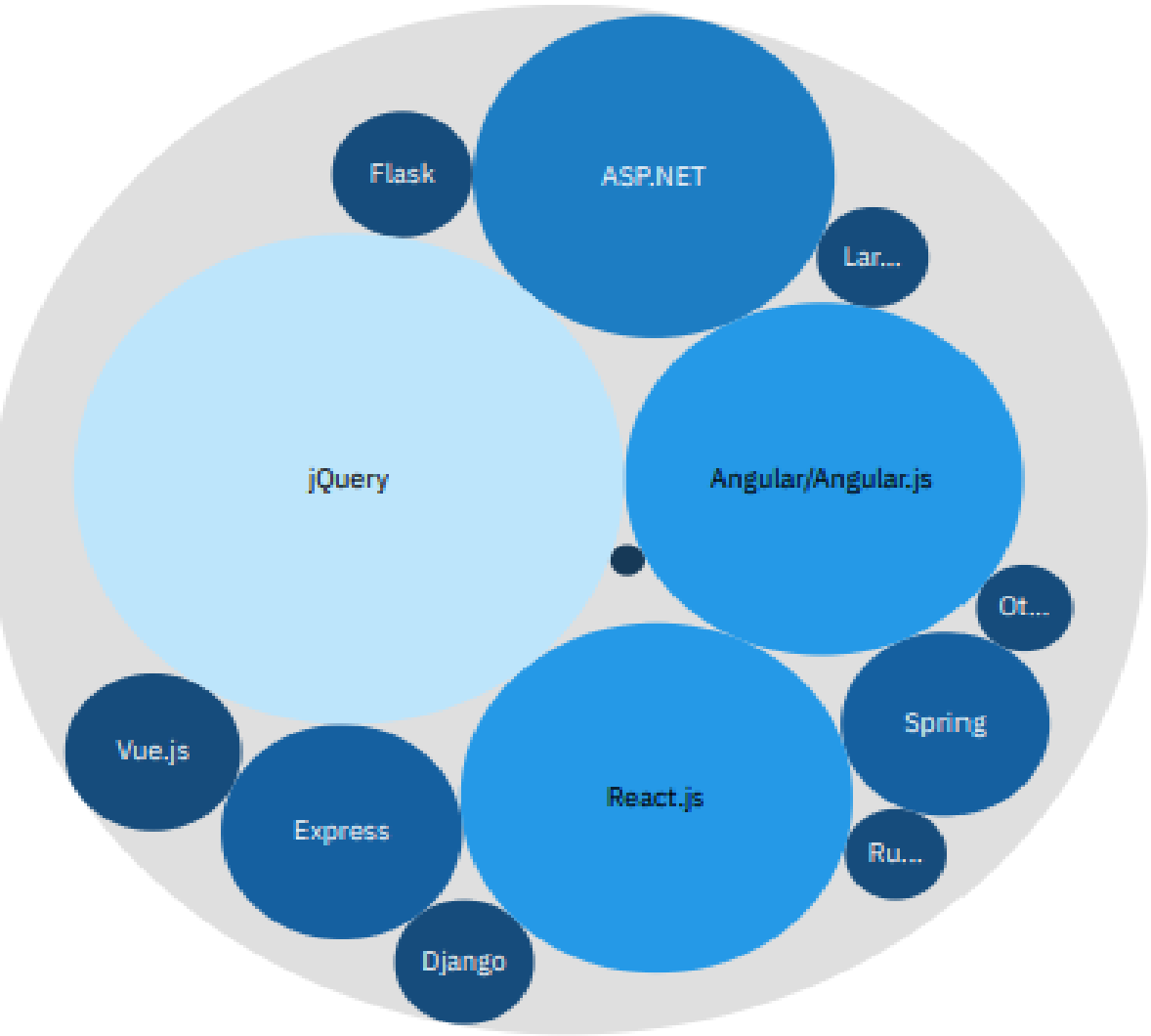
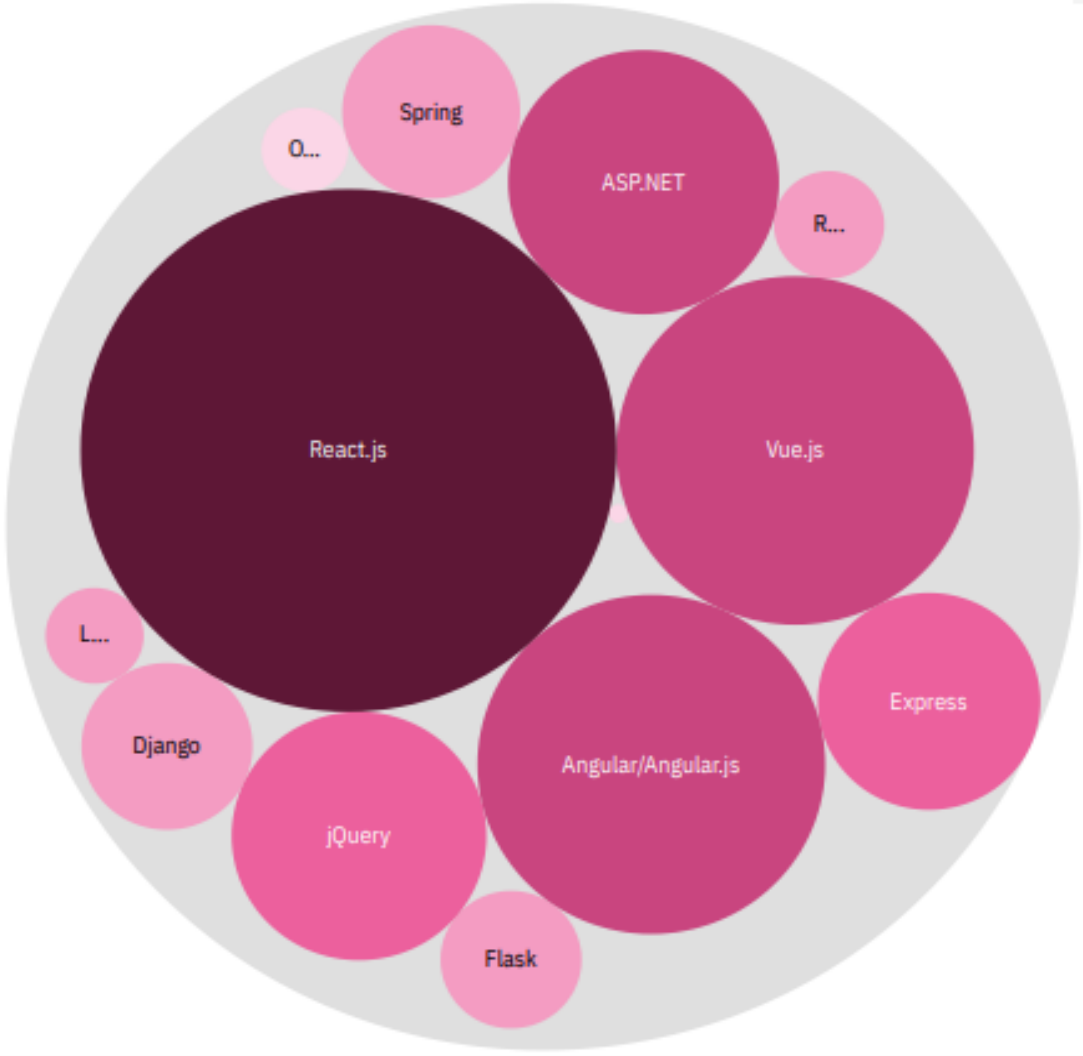
SKILLS NETWORK

Top 10 Database trends



Top 10 Web Frames trends





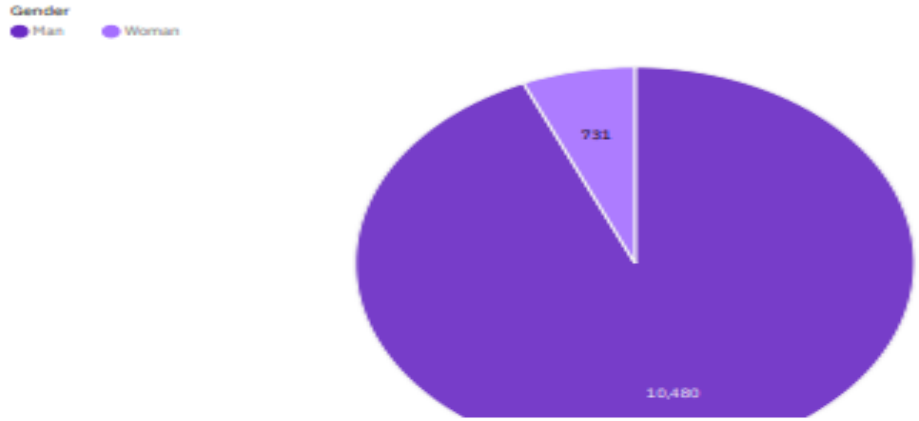
Filter(s) applied to the visualization(s) on the previous page:

Widget 1
LanguageDesireNextYear Top 10
LanguageDesireNextYear Top 10

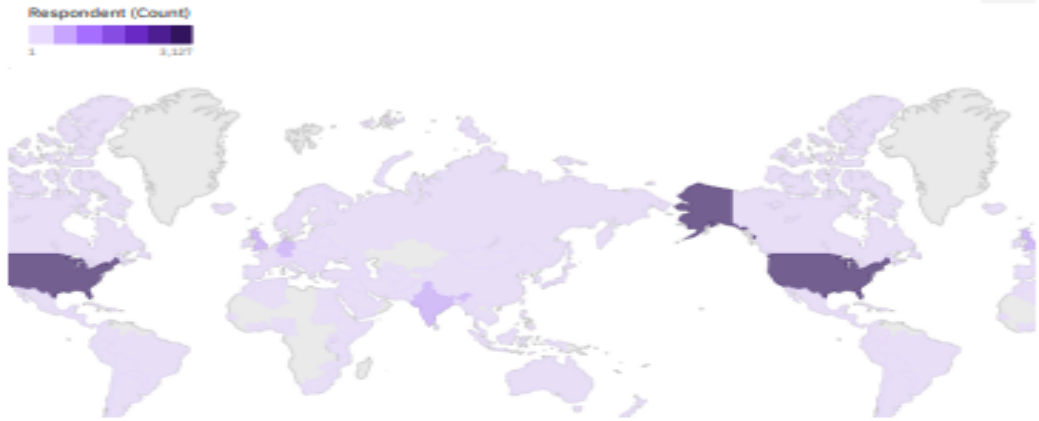
Widget 2
DatabaseDesireNextYear Top 10
DatabaseDesireNextYear Top 10

Demographics

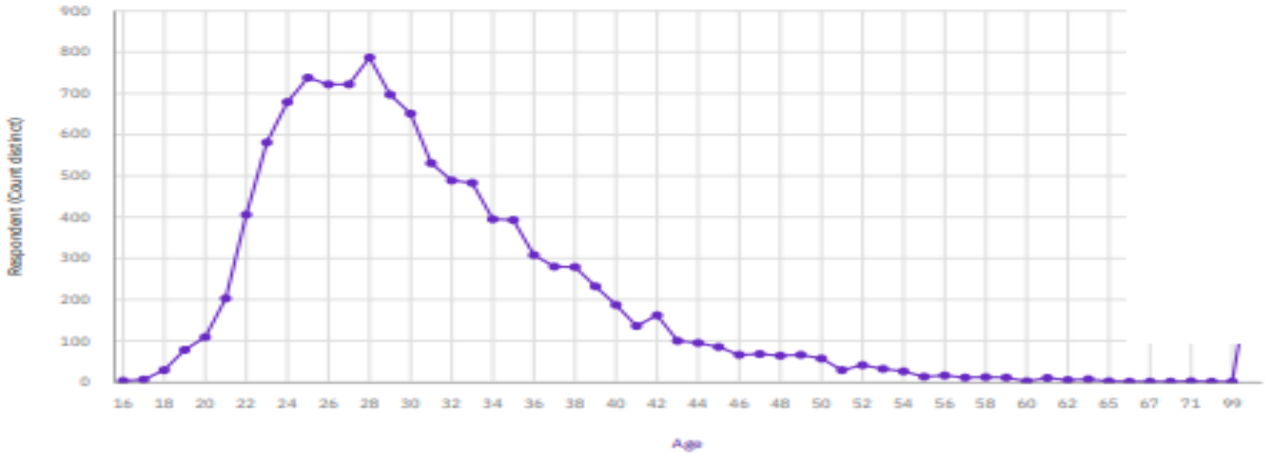
Respondent classified by Gender



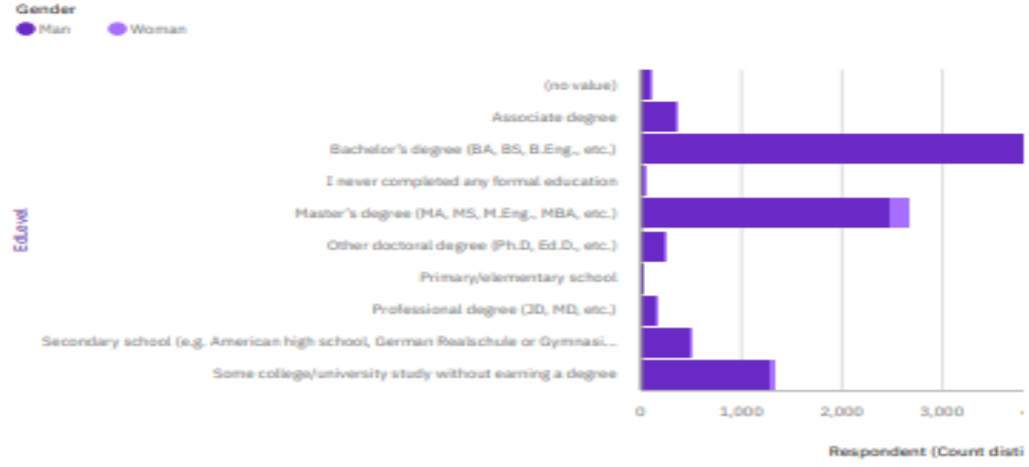
Respondent Count for Countries



Respondent Count By Age



Respondent by EdLevel colored by Gender



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Programming Languages- TypeScript is gaining significant interest and Python continues to grow as well.
- Databases- Redis, Elasticsearch, PostgreSQL and MongoDB are gaining more interest.
- Platforms- Interest Slack and Windows is dropping significantly.
- WebFrames- Vue.js is gaining substantial interest and React.js continues to grow as well.

Implications

- Continue to staff enough Linux, employ more peopleskilled in Docker, AWS and Android, butmake reductionsto Slack and Windows.
- Continue to staff enough ASP.NET but employ more people skilled in Vue.js and React.js
- Employ more people skilled in Redis,Elasticsearch, PostgreSQL and MongoDB.
- Continue to staff enough JavaScript and HTML/CSS but employ more people skilled in TypeScript and Python

DASHBOARD

1. Continue to staff enough ASP.NET but employ more people skilled in Vue.js and React.js.
2. Employ more people skilled in Redis,Elasticsearch, PostgreSQL and MongoDB.
3. Continue to staff enough JavaScript and HTML/CSS but employ more people skilled in TypeScript and Python

RESORSES

1. The 2019 stack overflow developer survey results
2. Datasets:

- M5 survey data demographics
- M5 survey data technologies normalization

CONCLUSION

1. Carve out budget in order to hire additional staff with skills needed to fill any gaps.
2. Set aside budget or put a program in place to upskill those already employed.
3. Make adjustmentsin staff for those skills no longer in demand.