Technology Trends in 2020

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EXECUTIVE SUMMARY

- Javascript and its framework remain highly sought after worldwide.
- Front-end development is most popular sector in the industry.
  - Sub Point 1
  - Sub Point 2
  - Sub Point 3
- In the age of AI and big data, cloud platforms are popular and non-relational databases are increasingly popular, too.
- The majority are young male adults with bachelor degree.
- Newer languages such as Typescript, Go are increasingly popular than old languages such as PHP.

INTRODUCTION

- This is the report for trends of future technology in 2020.
- With the advent of AI and Big data, the programming languages, databases and platforms used are different compared to 10 years ago or even 1 year ago.
- As diversity being preferred nowadays, we will observe it whether or not there is diversity.
- We will observe the prediction of technology trends and software industry overall.

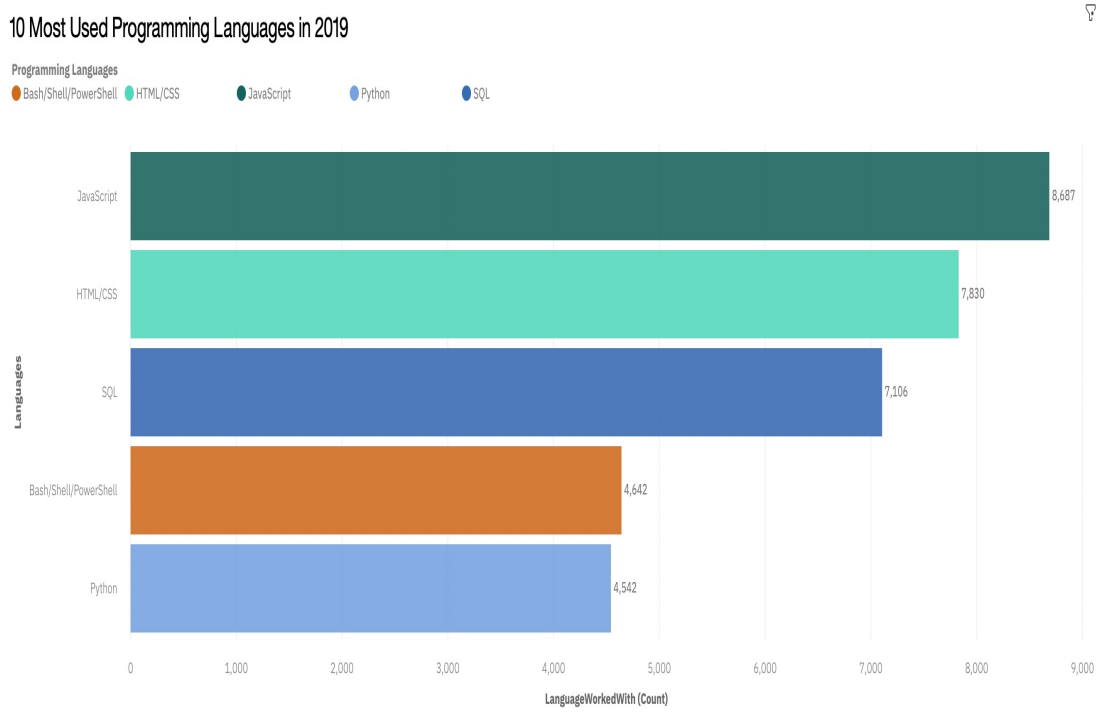
METHODOLOGY

- The dataset is from online survey of software professionals across the world conducted by Stack Overflow, a popular website for developers.
- The data used is 1/10th of the original dataset and it may not reflect the real world scenario.
- The data is normalized to have the same weight across the table
- Point4
  - Sub Point1
  - Sub Point2

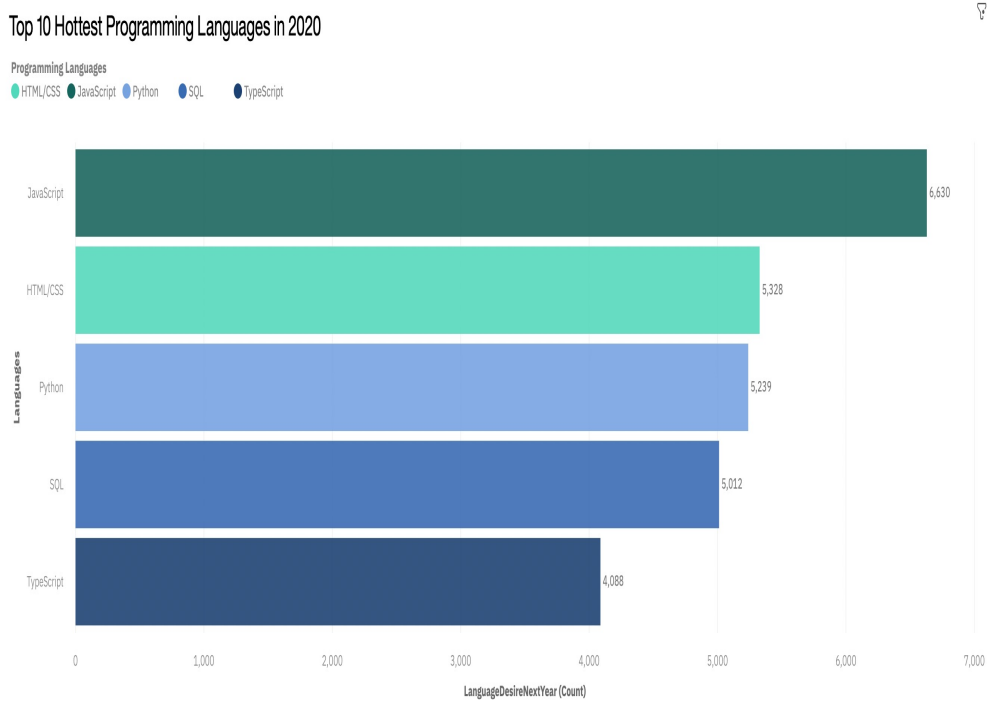
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

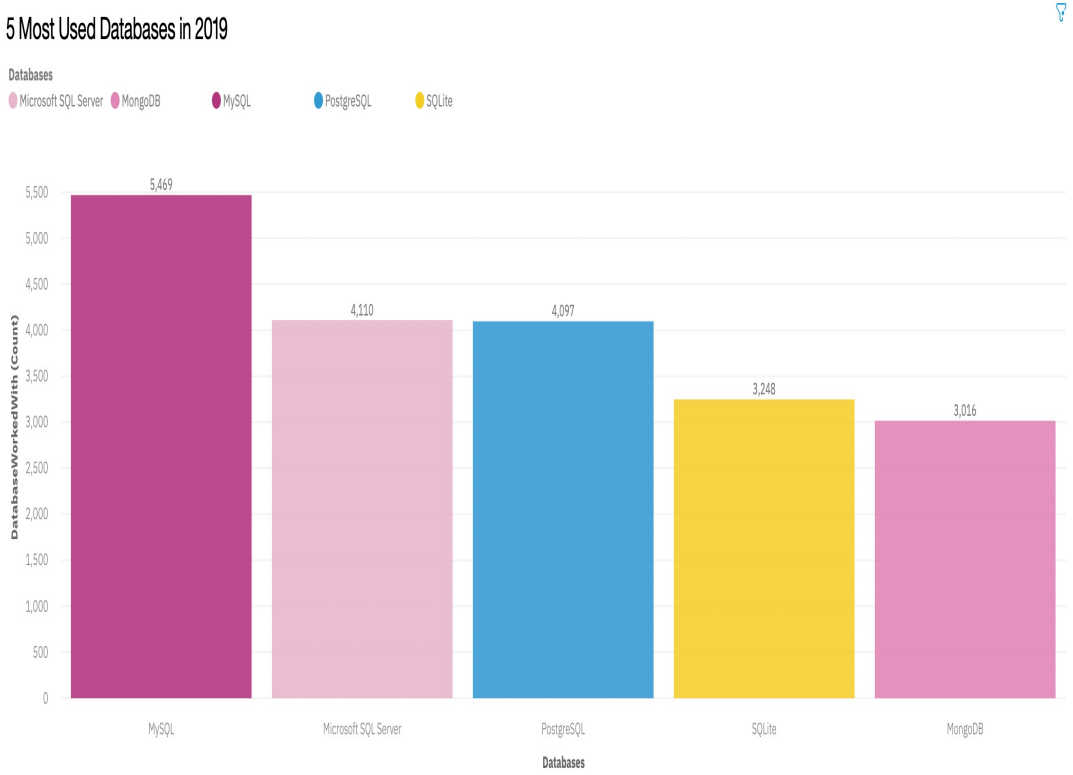
- Both Javascript and HTML/CSS remain unchanged at the top. This shows that front-end web programming language is still going strong.
- Python language is becoming popular.
- Typescript which is a new superset of Javascript also becomes a new language to learn for developers

Implications

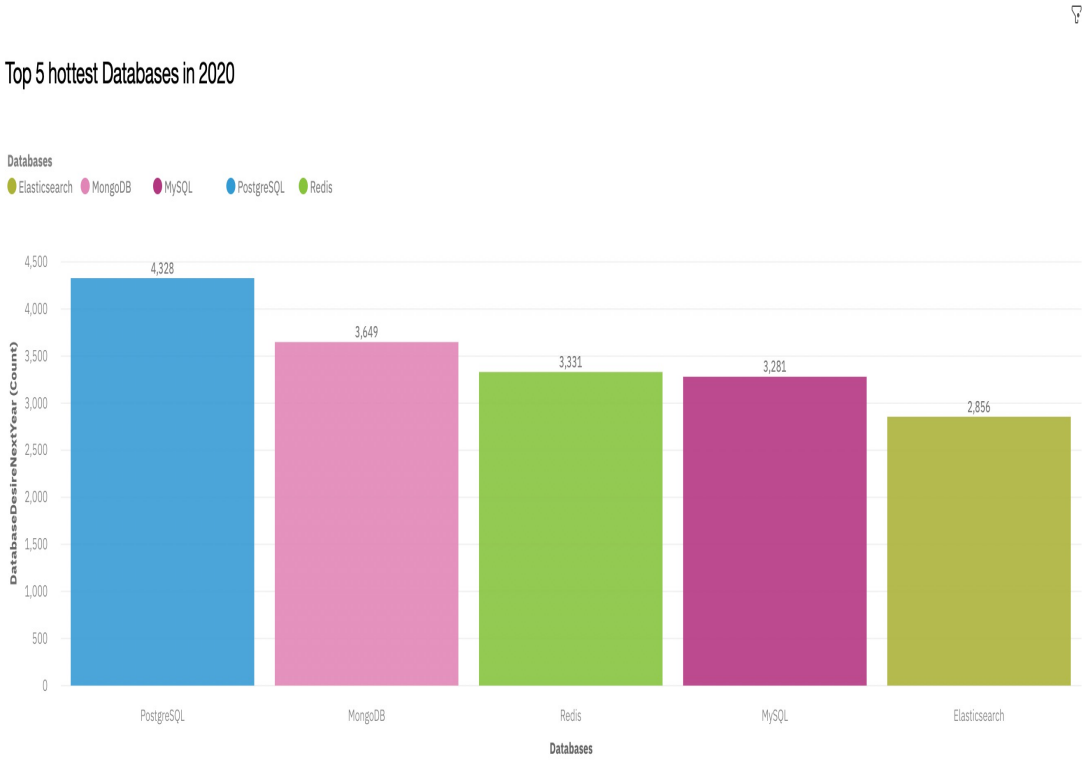
- Front-end web development is likely to continue to grow next year.
- Python which is a universal versatile language and easy to learn, will increase its popularity with the advent of AI and other scientific utilization of python language.
- SQL, a relational database language is still a must to learn next year.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL by Oracle remain at the top but other relational databases are catching up.
- The top 4 are relational databases which indicates relational databases are still most popular databases.
- The fifth database is MongoDB which is a NoSQL database as NoSQL databases are becoming popular.

Implications

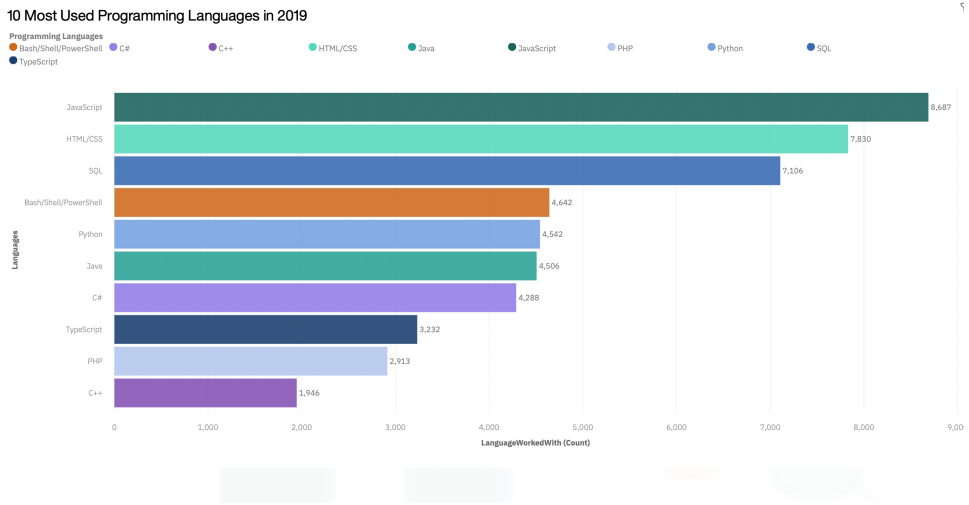
- Relational databases will still be popular but other types of databases are among the top databases to be used next year.
- Non-relational databases such as MongoDB and Redis are becoming widely-used as data is increasing in veracity, velocity and volume.

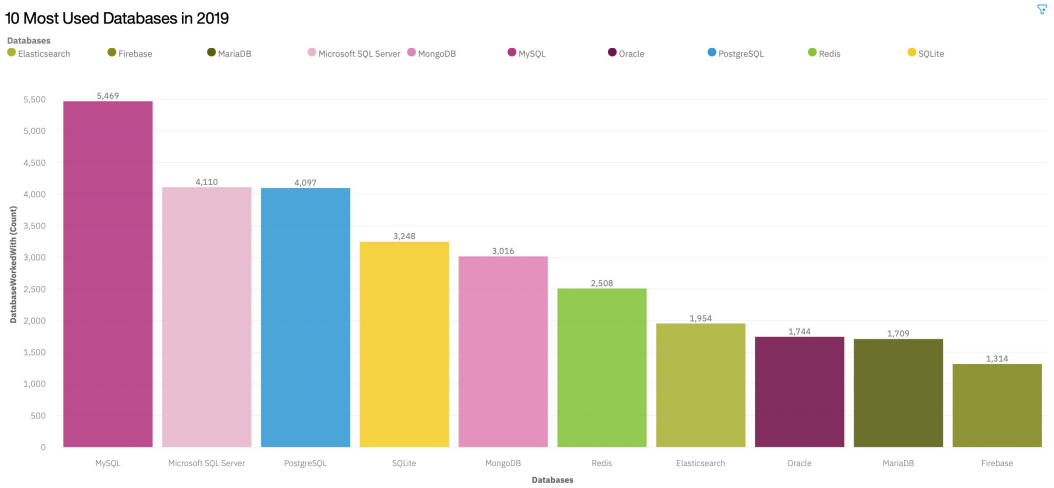
DASHBOARD

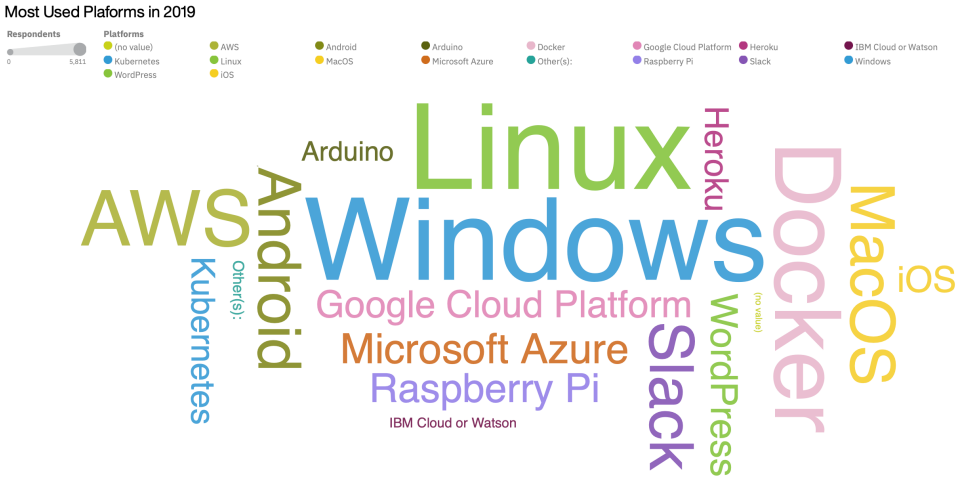
The link of my Cognos dashboard

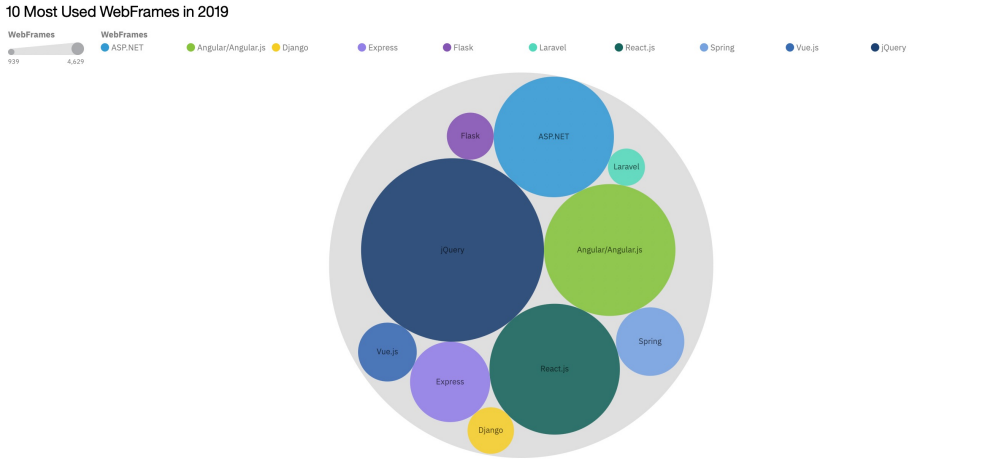
https://dataplatform.cloud.ibm.com/dashboards/2949bd74-c165-4b4f-98cb-075a2985ee1a/view/7011a27a6fb56cf14fb4eee4079f25552b35730fb2bb8355d3d67b495d322397a93b4093c82f4d5dd3160d67f3ba110d9d

DASHBOARD TAB 1









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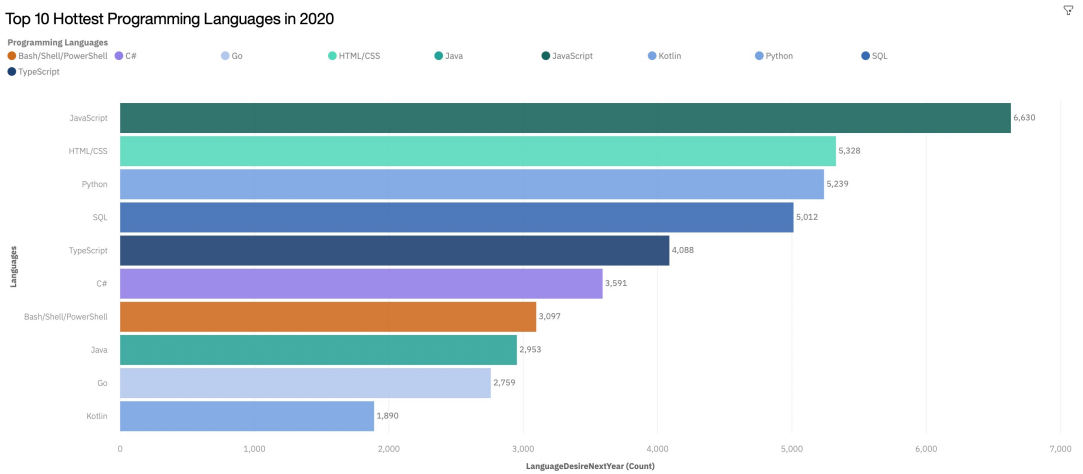
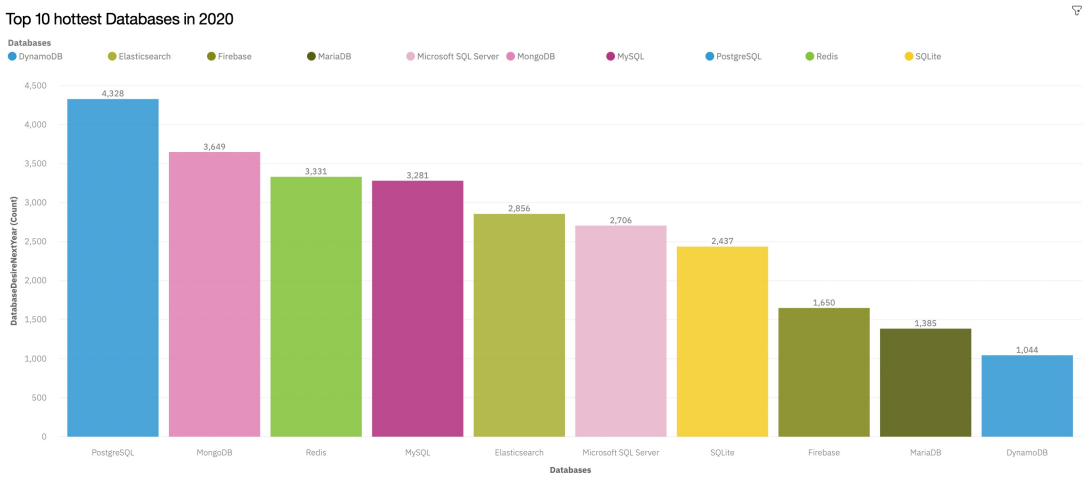
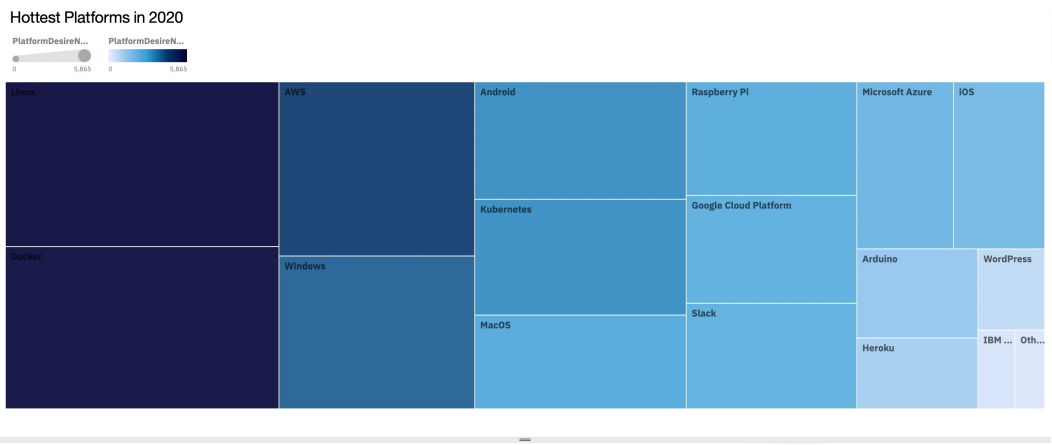
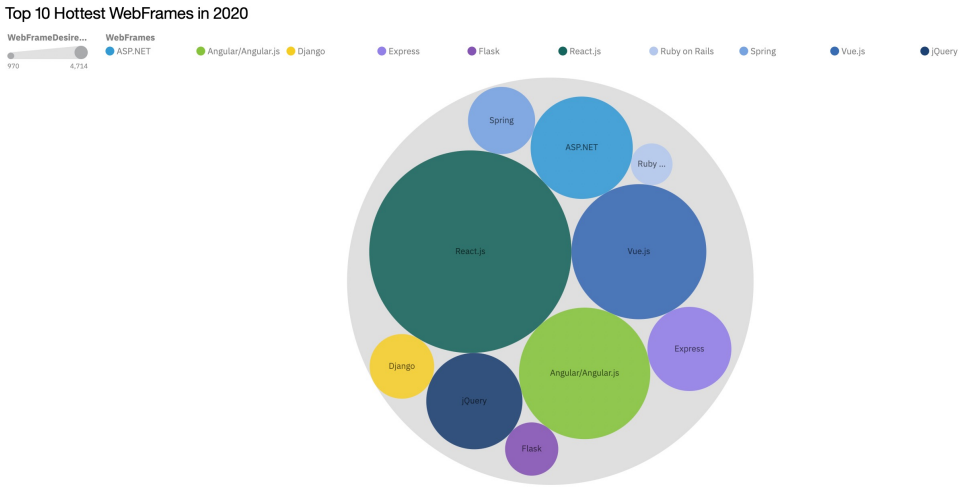
SKILLS NETWORK

DASHBOARD TAB 2









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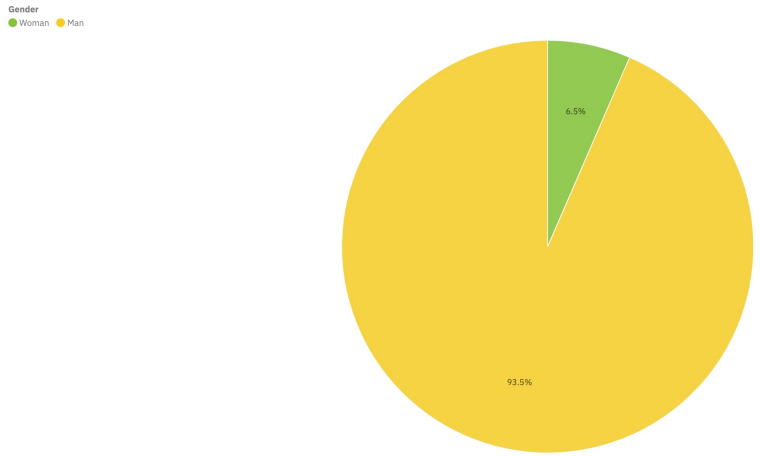
SKILLS NETWORK

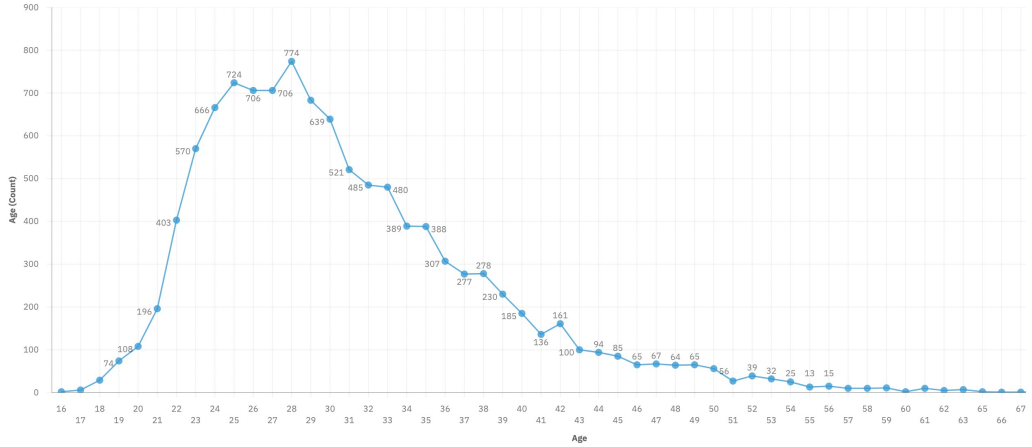
DASHBOARD TAB 3

Respondents by Gender

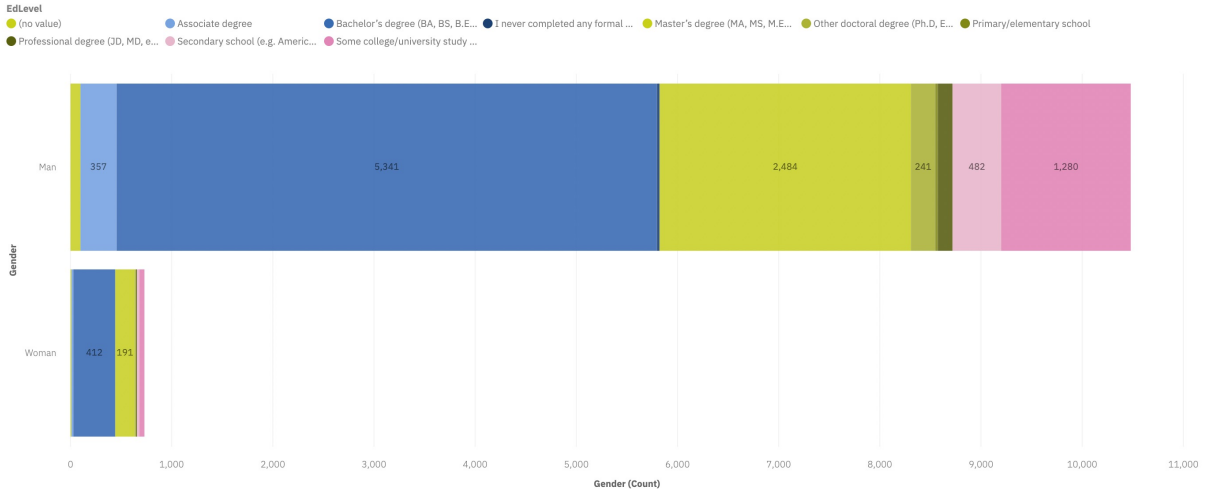


Respondents by Countries

Respondents by Age



Respondents by Gender and Education



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SKILLS NETWORK

DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- The frameworks of Javascript are the most popular as it can be used as a both front and back end language.
- The majority of respondents are male which may be due to the frequency of the response but it can reflect a bit about gender inequality in the industry.
- The majority of the respondents are from United States and have age of 28 with a bachelor degree.

Implications

- The Javascript with its frameworks and front-end web development will continue to be popular worldwide.
- Although the industry doesn't need a degree to enter, bachelor and master degrees are still the majority.
- The majority are young adults in the industry which indicates that age can play a major role.

CONCLUSION

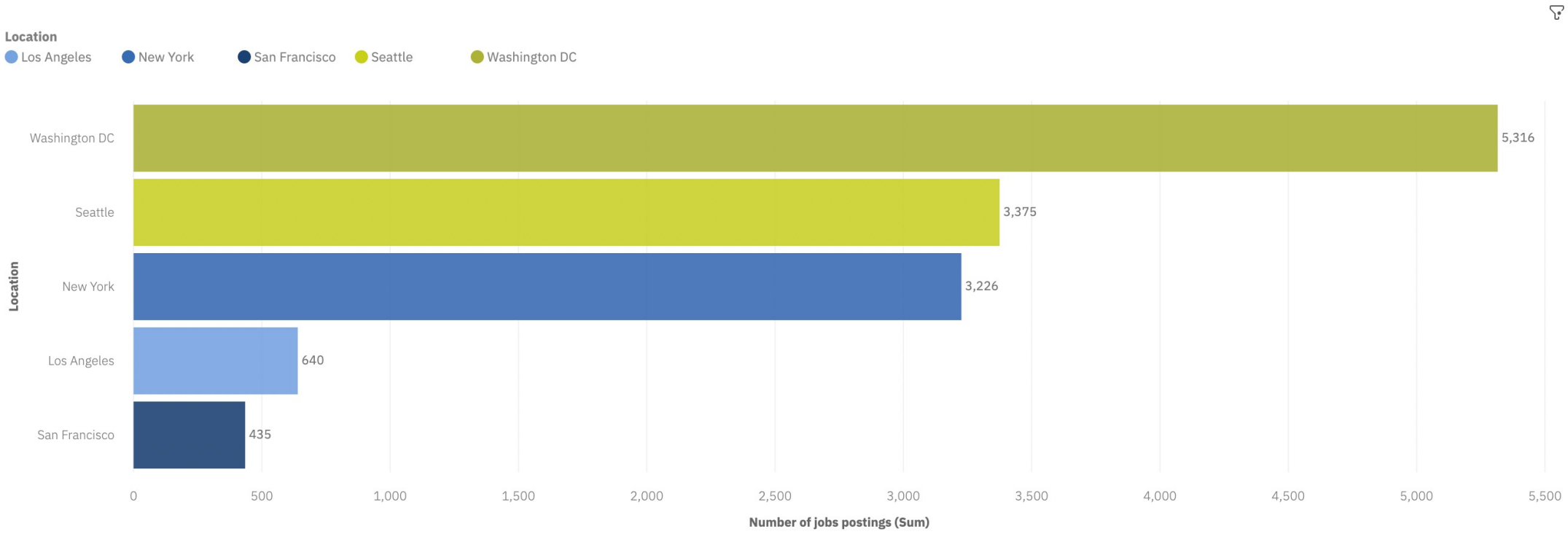
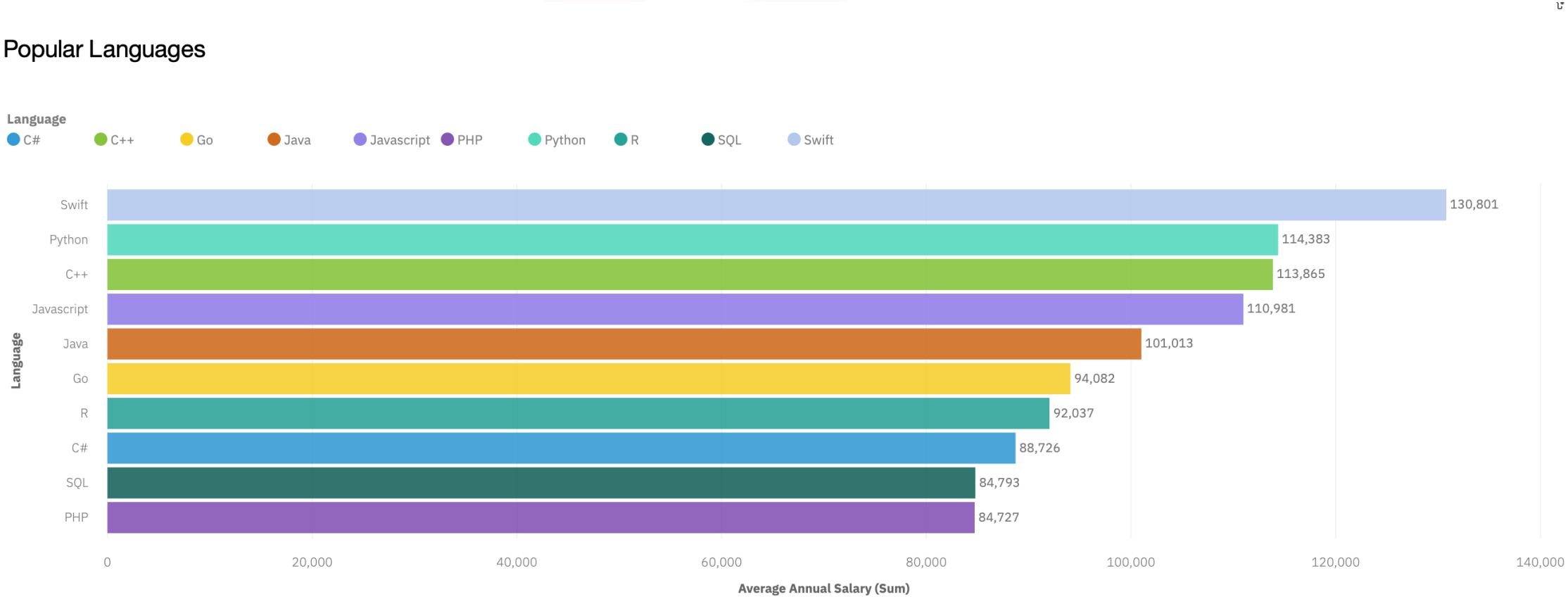
- Javascript and front-end development still reigns at the top of most popular languages.
- With AI and Big data, NoSQL becomes increasingly popular.
- The industry is still male-dominated with high turnover rate with increasing age.

APPENDIX

- References

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

JOB POSTINGS



POPULAR LANGUAGES