TRENDS IN INFORMATION TECHNOLOGIES YEAR 2019

WALDO HIDALGO

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OUTLINE

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- Methodology
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EXECUTIVE SUMMARY

- Programming Language and Database trends
- Summary statistics for the year 2019, next year and on the type of user who answered the survey
  - Current Technology Usage dashboards
  - Future Technology Trends dashboards
  - Demographics dashboards
- A change in trend is observed for the next year
- The change in trend is oriented to the use of open source technologies
- The change in trend can be generalized to the world, with the United States being the world leader in the development of technologies

INTRODUCTION

- A survey of information and analysis of the Stack Overflow Developer Survey 2019 is carried out
- An analysis of the technologies used in 2019 and the technologies that will be used next year is carried out
- It is concluded that the technologies that will set the trend next year will be open source
- Analysis of job posting
  - A graph is shown on the jobs posting by cities
  - A graph is shown on the publication of the most required programming languages in job posting

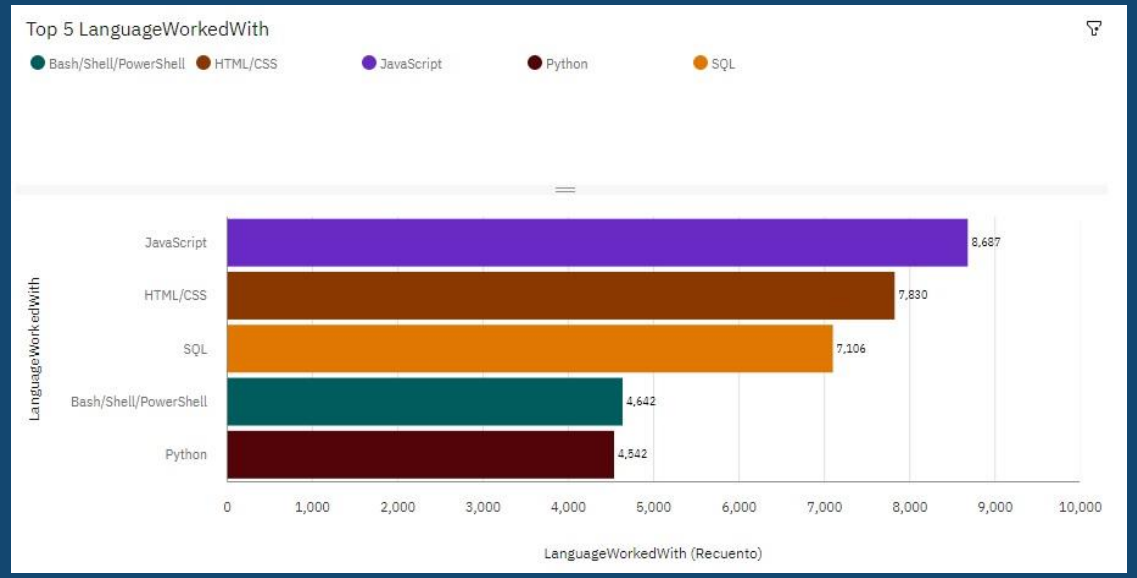
METHODOLOGY

- Stack Overflow Developer Survey 2019 data used
- IBM Cognos Analytics cloud software is used
- Dashboards are created to analyze information from this year and next
- Job posting information is plotted using:
  - Using Job API
  - Using web scraping

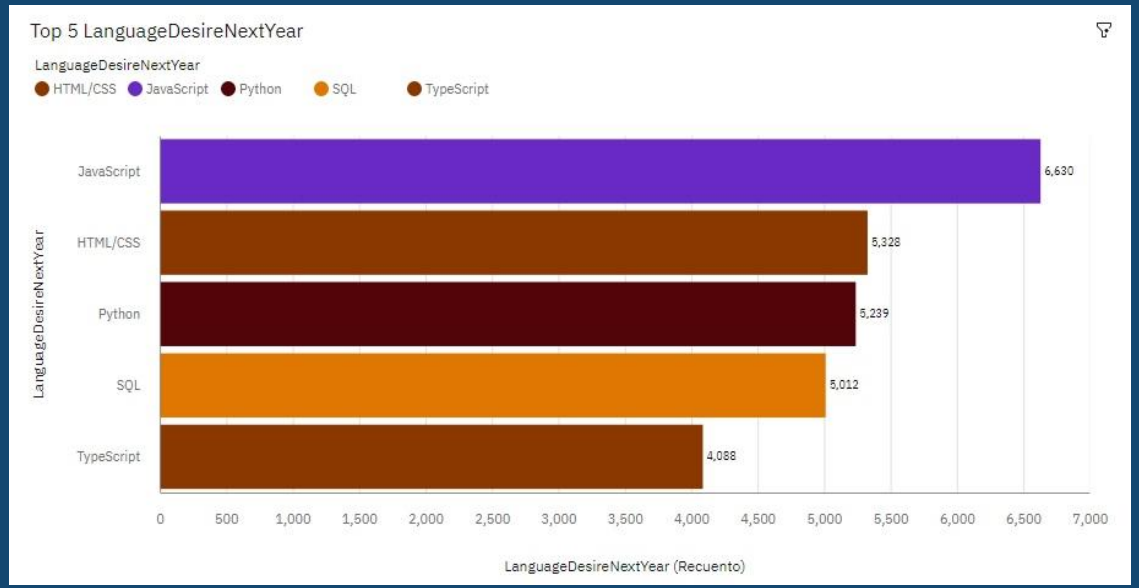
RESULTS:

PROGRAMMING LANGUAGE TRENDS

CURRENT YEAR:



NEXT YEAR:



PROGRAMMING LANGUAGE TRENDS:

FINDINGS & IMPLICATIONS

FINDINGS:

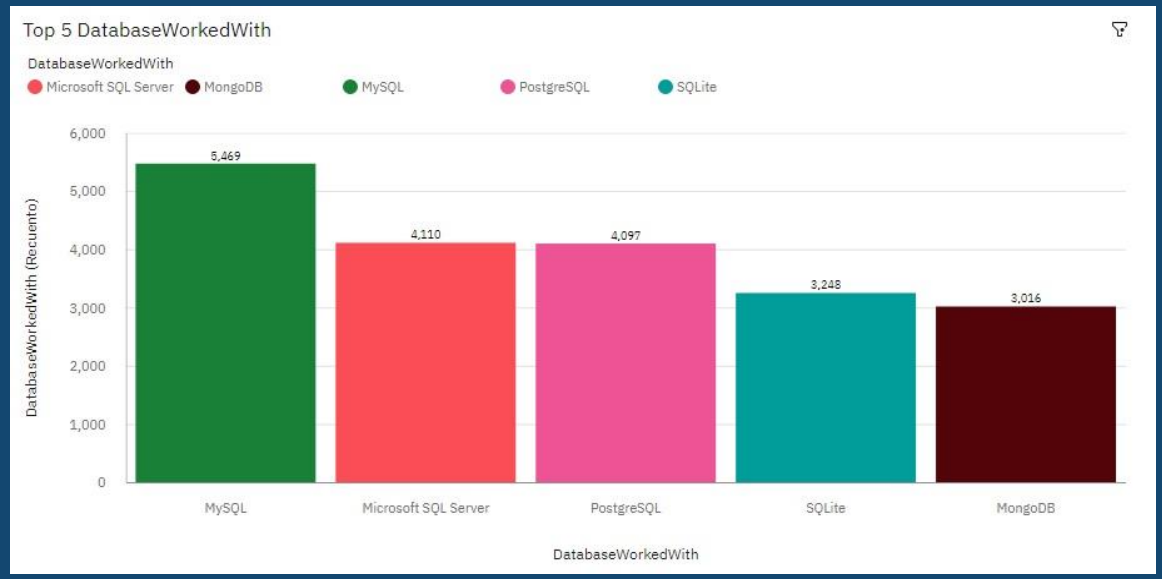
- The year 2019 that the most used programming language is JavaScript, HTML/CSS and SQL
- The next year that the most used programming language is JavaScript, HTML/CSS and Python
- Python replaces SQL as the third most used language

IMPLICATIONS:

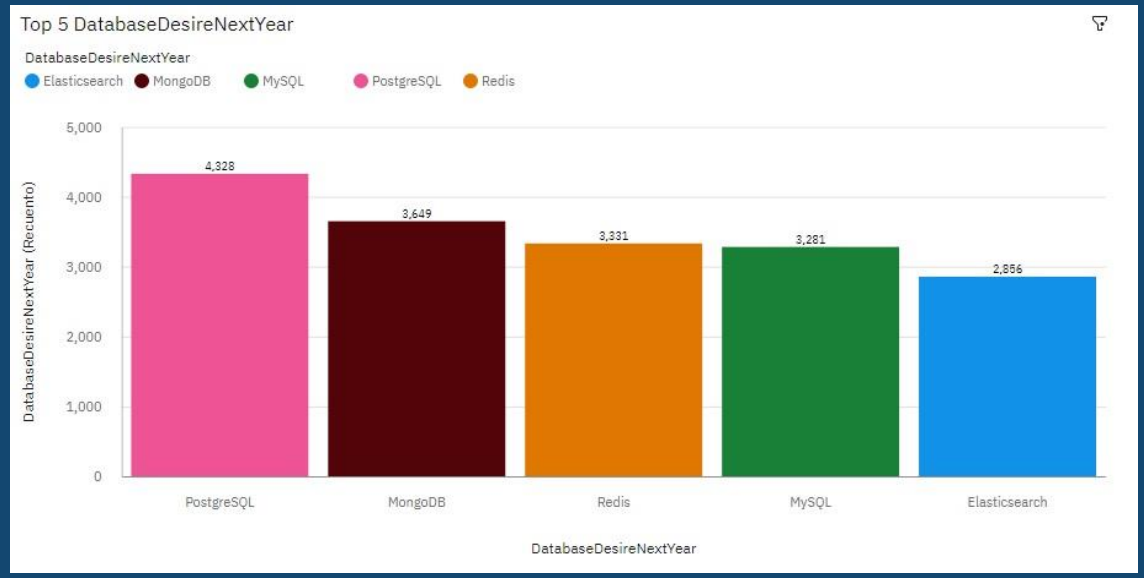
- The languages oriented to design web sites are in the first
- The languages oriented to design websites remain in the top 2 in both years
- Python rises from position 5 to position 3, emphasizing its importance as a multipurpose programming language.

DATABASE TRENDS

CURRENT YEAR:



NEXT YEAR:



DATABASE TRENDS:

FINDINGS & IMP LICATIONS

FINDINGS:

- In 2019 the most used DBMS are MySQL, Microsoft SQL Server and PostgreSQL
- The next year the most used DBMS are PostgreSQL, MongoDB and Redis
- PostgreSQL will rise from position 3 to position 1

IMPLICATIONS:

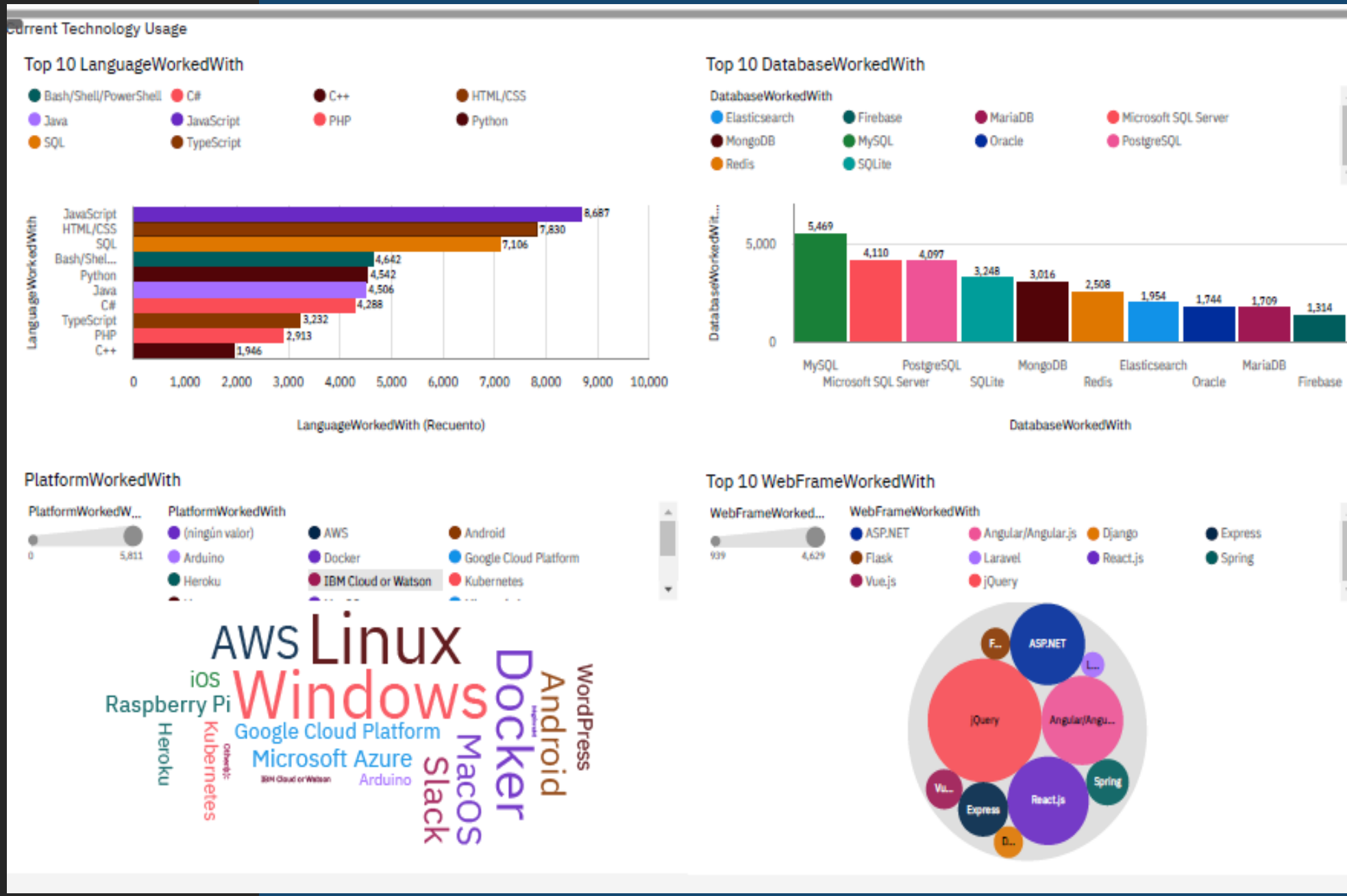
- Open source DBMS will be the trend next year
- The DBMS NOSQL MongoDB became a trend
- Next year non-traditional DBMS will be a trend

DASHBOARD

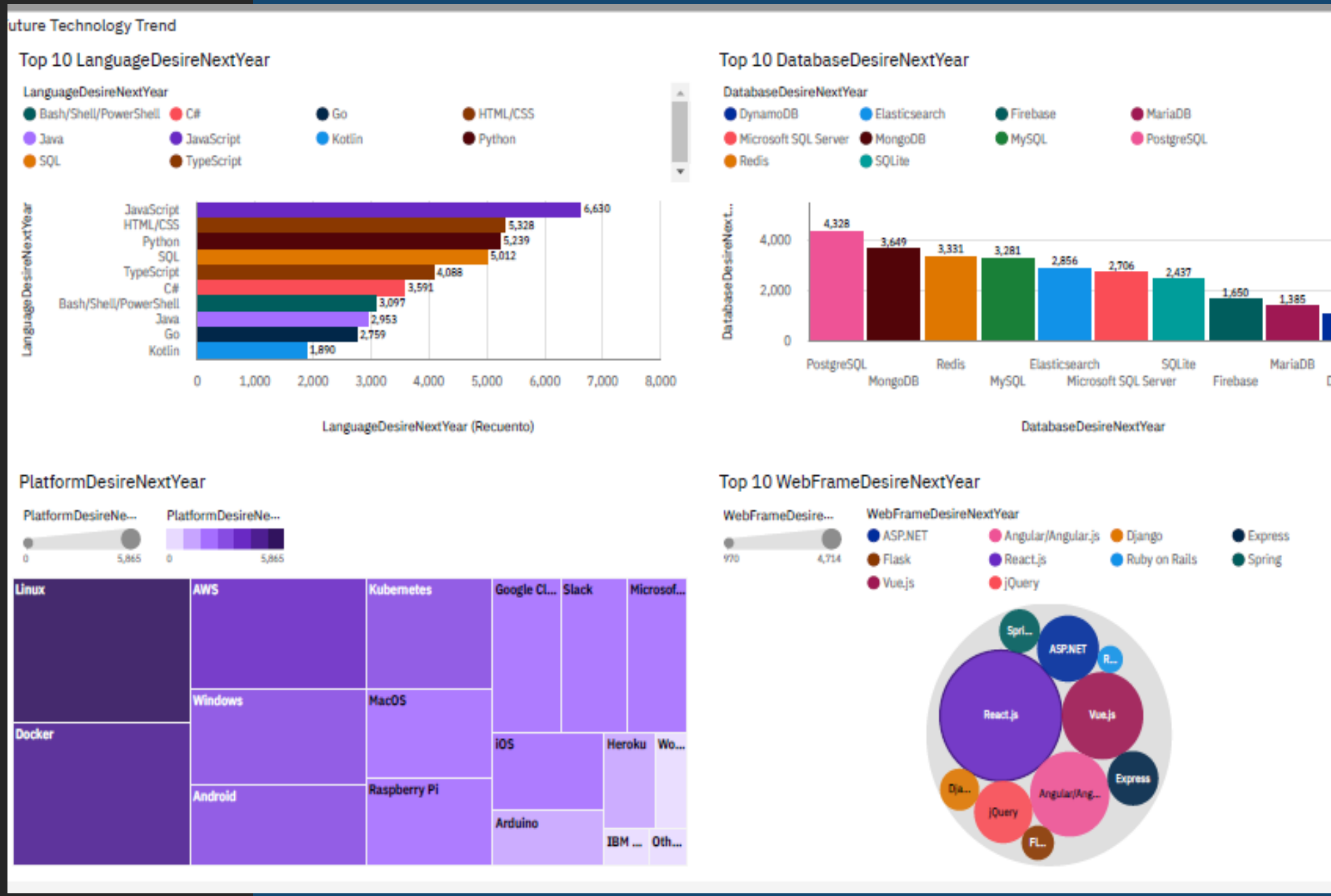
PERMALINK:

https://github.com/Waldo-analista/CourseraProyectoWeek5/blob/6beedaaef5d99f43d39e8f68797b4c9eebe3ec37/Peer-Graded%20Assignment%205.pdf

DASHBOARD TAB 1



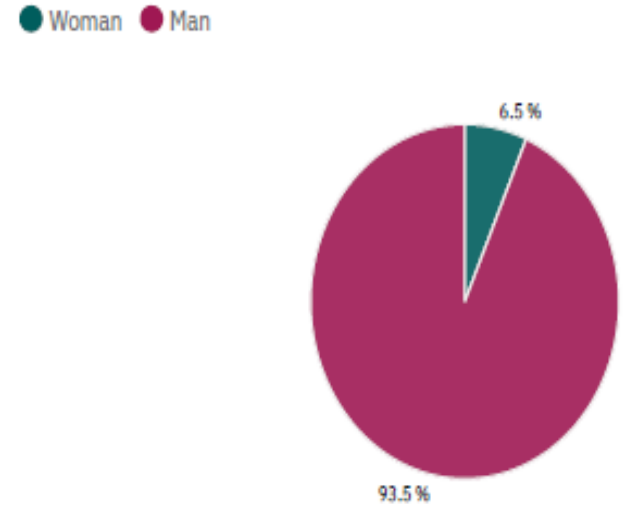
DASHBOARD TAB 2



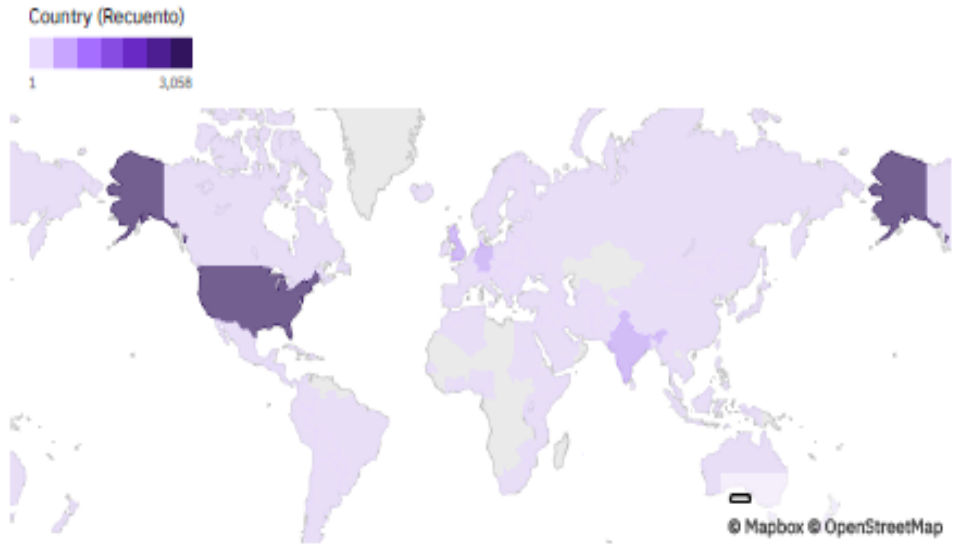
DASHBOARD TAB 3

Demographics

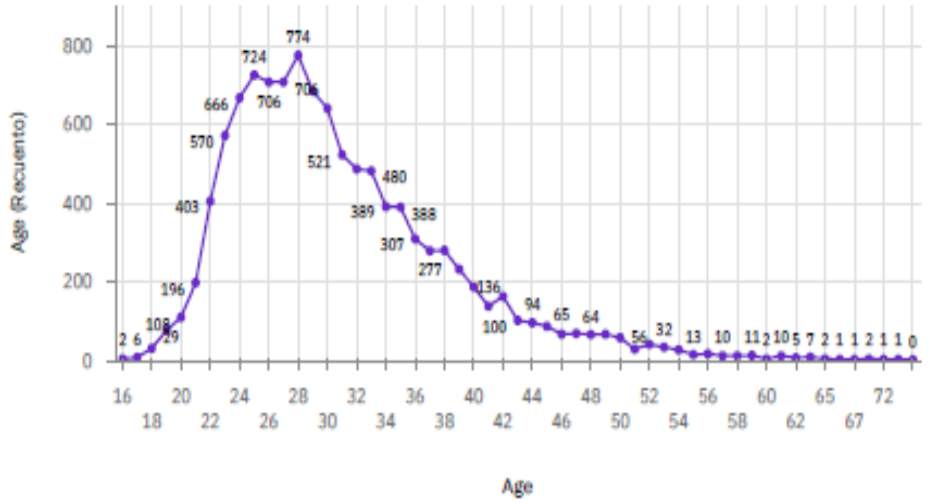
Respondent classified by Gender



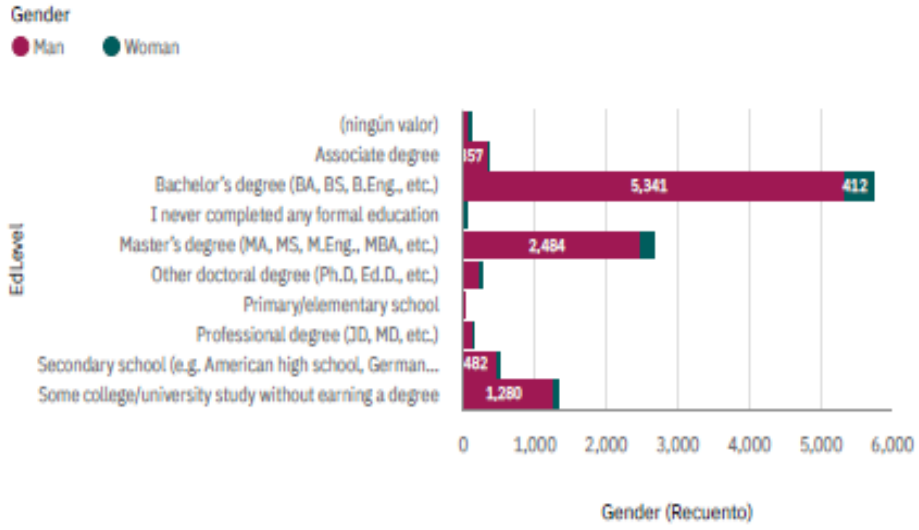
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION

- From the information of year 2019 and about the next one, it is observed that the open source platforms will be the predominant ones next year

OVERALL FINDINGS & IMPLICATIONS

FINDINGS:

- Respondents are mostly men (93.5%) from the United States having higher education
- Respondents are in the age range between 20 and 40 years
- The languages and platforms do not experience relevant changes from this year to another

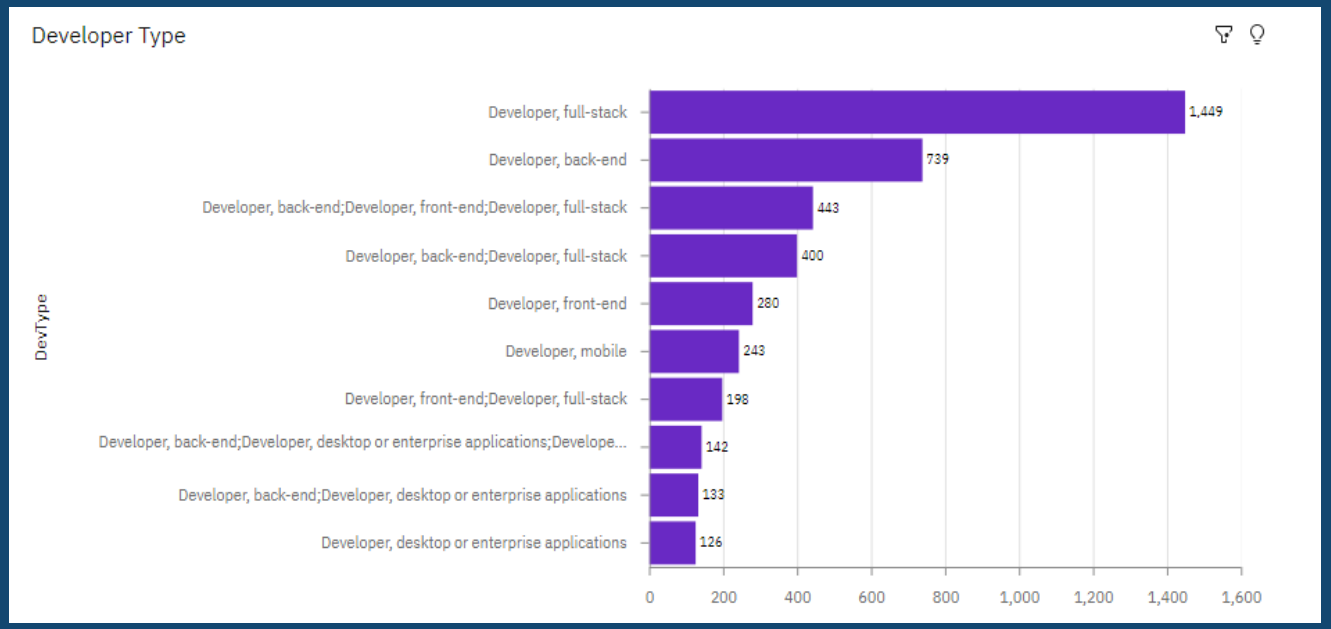
IMPLICATIONS

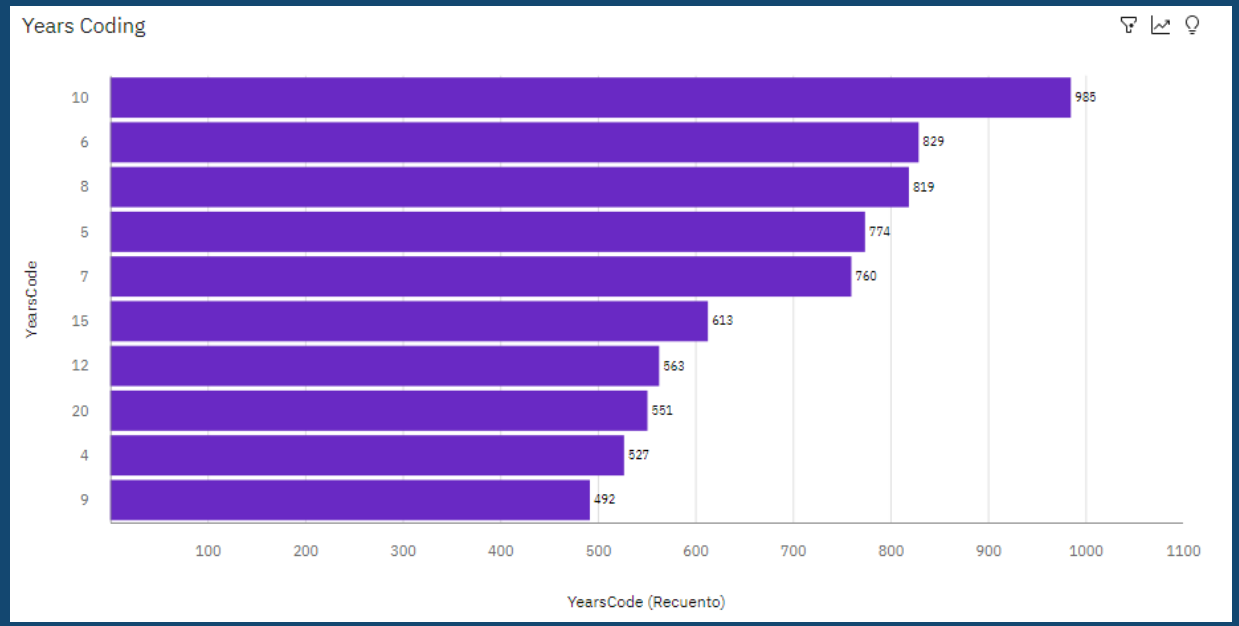
- The survey has predictive importance biased to the United States
- There is a change in trend from traditional technologies to open source technologies
- The main changes are observed in DBMS and WebFrame in which the use of open source technologies will go to the first places.

CONCLUSION

- Although the survey has a bias towards the United States, the predictive value is given because the United States is a leader in the technological field
- The technologies that will move to relevant places of importance will be Python, PostgreSQL, Linux and React.js
- The use of open source platforms provides clear advantages over other platforms in terms of costs.
- It is possible to establish the thesis that in the coming years **open source technologies** will be used as the base preference

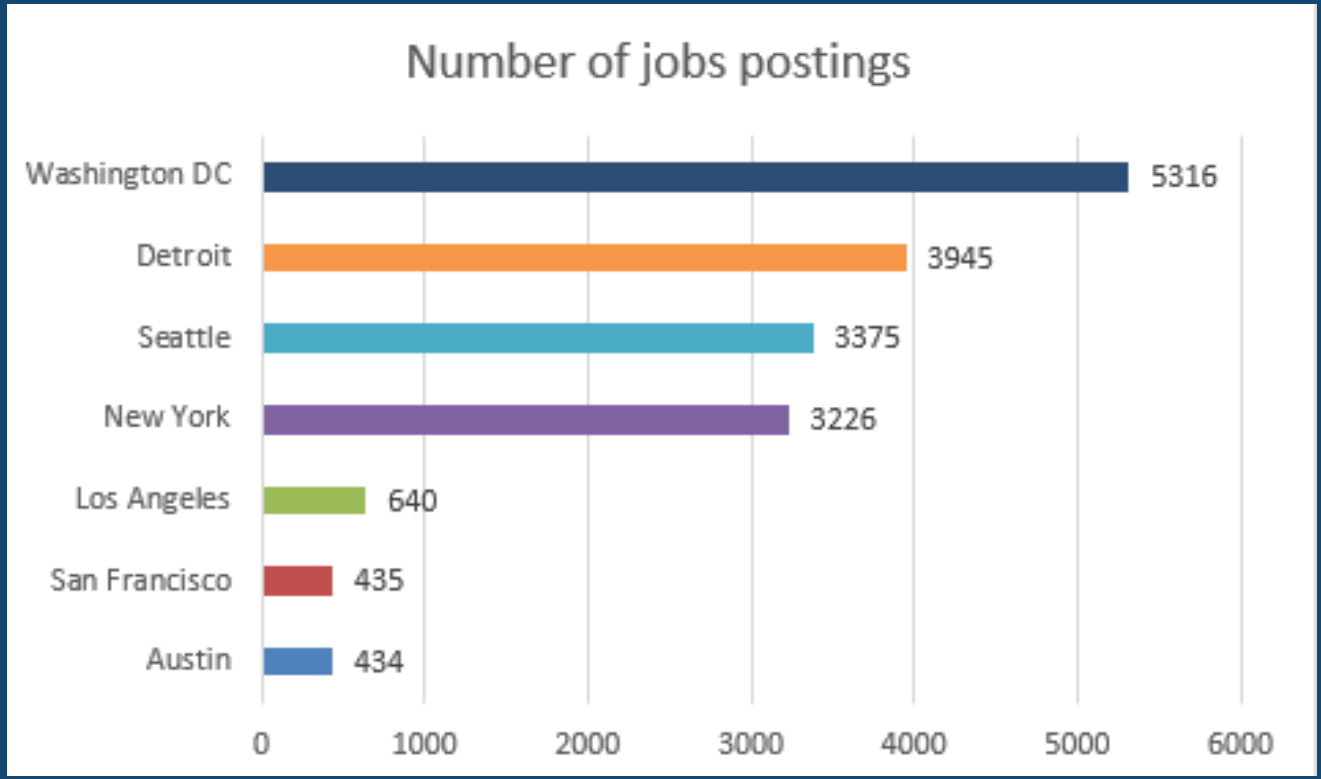
APPENDIX

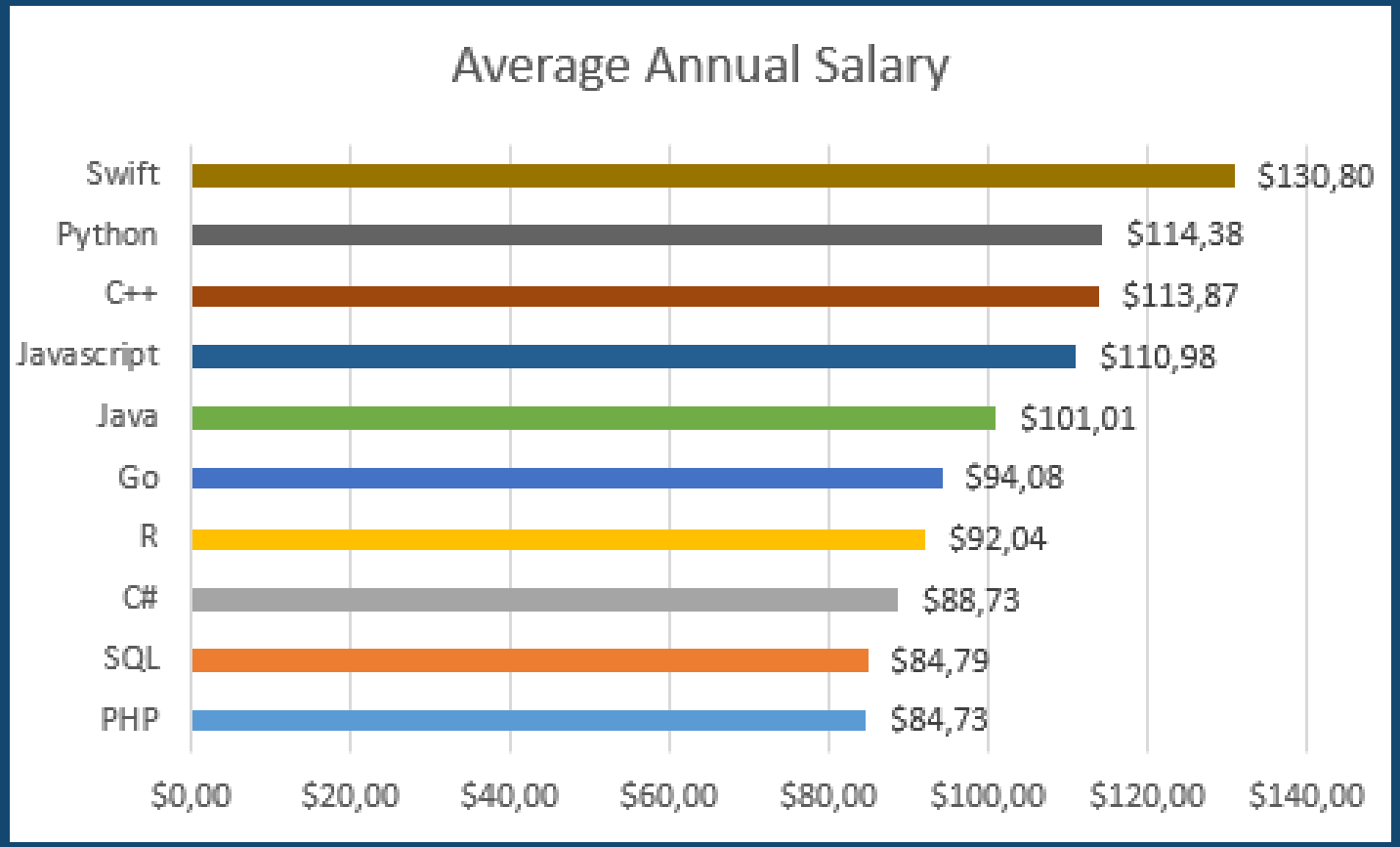

Developer Type
DevType
Developer, full-stack
1,449
Developer, back-end
739
Developer, back-end;Developer, front-end;Developer, full-stack
443
Developer, back-end;Developer, full-stack
400
Developer, front-end
280
Developer, mobile
243
Developer, front-end;Developer, full-stack
198
Developer, back-end;Developer, desktop or enterprise applications;Develope...
142
Developer, back-end;Developer, desktop or enterprise applications
133
Developer, desktop or enterprise applications
126
0
200
400
600
800
1,000
1,200
1,400
1,600


Years Coding
YearsCode
10
985
6
829
8
819
5
774
7
760
15
613
12
563
20
551
4
527
9
492
100
200
300
400
500
600
700
800
900
1000
1100
YearsCode (Recuento)

JOB POSTINGS

In Module 1 you have collected the job posting data using Job API in a file named "job-postings.xlsx". Present that data using a bar chart here. Order the bar chart in the descending order of the number of job postings.



POPULAR LANGUAGES

In Module 1 you have collected the job postings data using web scraping in a file named “popular-languages.csv”. Present that data using a bar chart here. Order the bar chart in the descending order of salary.