



2019 Development world analysis

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OUTLINE



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

EXECUTIVE SUMMARY



- Most of the respondents come from Europe and America as well as these respondent mostly are men.
- The faster growing programming language is Python and the No-SQL platforms are considered as future-skill.
- Linux is the commonly used platform to work with. Because of its integration to the cloud services and platforms.
- Most of the developers are between 23 and 40 years old.

INTRODUCTION



- The stack overflow decided to analyse the coding, database, and platforms preferences on a developer community along the world.
- This survey helped to understand the behaviour of the companies when hiring people and the desired knowledge they asked to its employees.
- Also, this survey analysed the total annual compensation and how the salaries are affected due to the technologies employed.
- Finally analysed the tendency of the programming languages as well as many other technologies that will used in the next years.

METHODOLOGY



- Stack Overflow designed a survey that was applied along the development world. This survey contains many relevant questions such as average salary, country, age, gender, programming languages among others.
- The reported is based on a survey of 11,451 people along the world.
- 91.8% of the respondents were male, 6.6% corresponded to woman and the remaining 1.6% did not specified.
- The region where most of the respondents come from is Europe with 4,763, America with 4,269, Asia with 1,768, Oceania with 360, Africa with 273 and only 18 respondent did not specified.

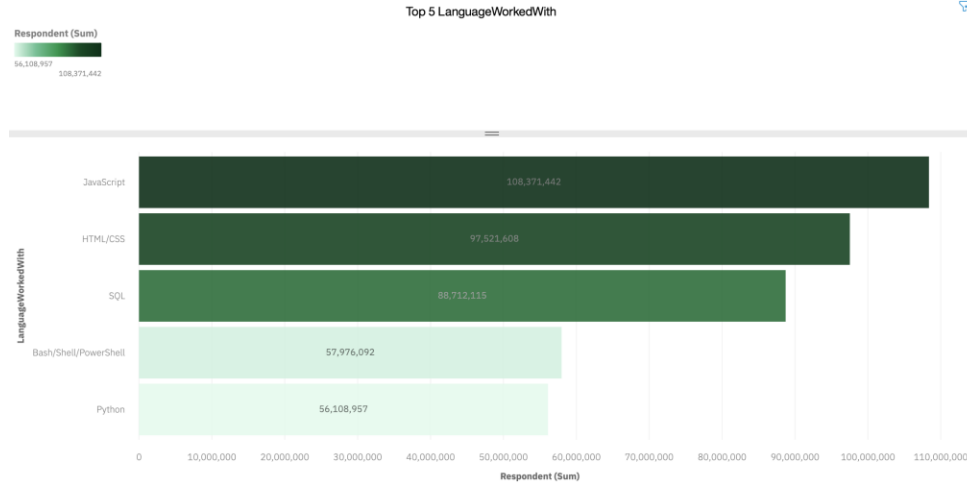
RESULTS

- The analysis of the results was performed by using python and matplotlib to generate some graphics.
- Some graphics were designed into IBM Cognos Analytics. The simplicity of the tool helps to modify the charts in real time without any other tool to calculate the numbers.
- The information used was taken from Stack OverFlow survey that took place on 2019 and some information was taken from websites.

PROGRAMMING LANGUAGE TRENDS

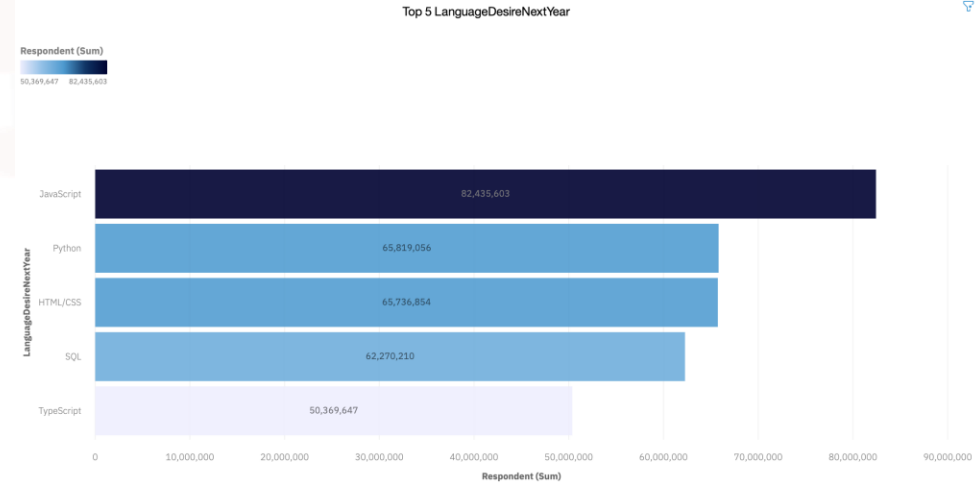
2019

The graphic below illustrates the top 5 programming languages that people work with.



2020

The below chart shows the top 5 desired programming language that developers want to use.



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- The most use programming Language is Javascript.
- The usage of Python is growing faster.
- Object-oriented programming languages are not in the top 5 programming languages.

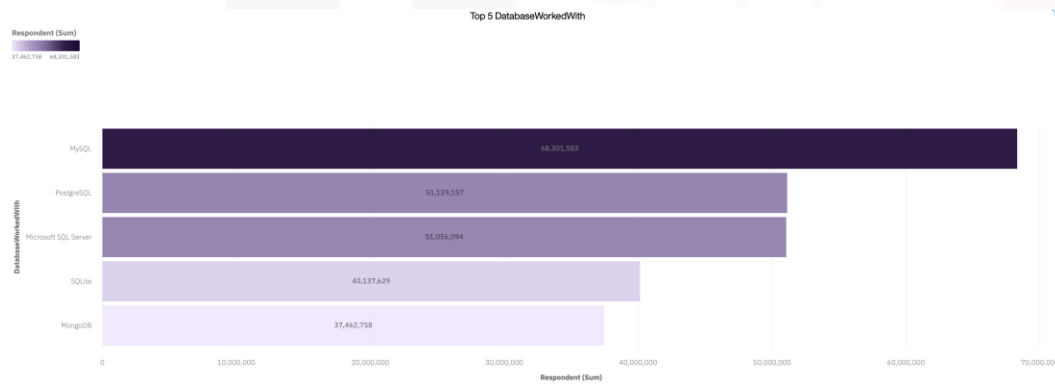
Implications

- One future skill will take into consideration to know Javascript.
- Python is easy to use and learn.
- Object-oriented programming languages are more difficult to learn and used with other technologies such as cloud.

DATABASE TRENDS

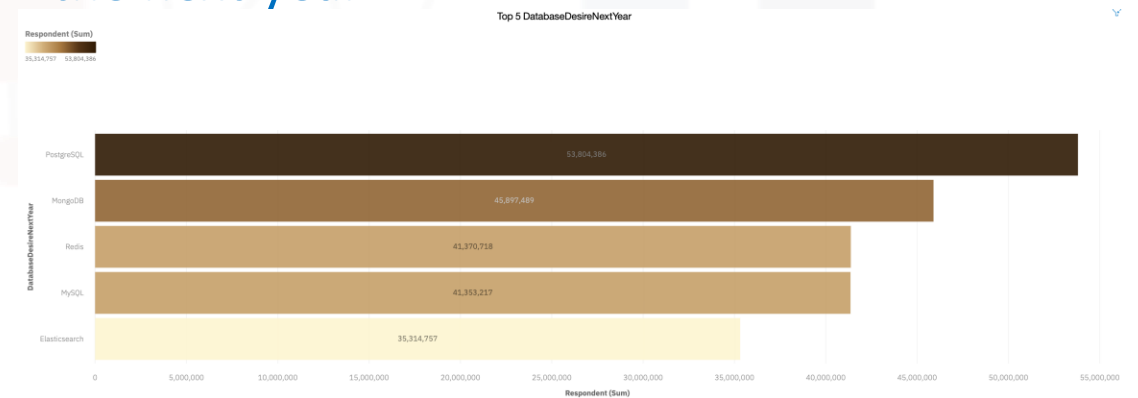
2019

The purple graphic shows the top 5 database work with.



2020

The yellow graphic displays the top 5 desire database expertise to learn in the next year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- During 2019, the SQL services are used to stored information.
- No-SQL databases will grow faster in 2020.
- SQL services usage will decrease but still useful in the next years.

Implications

- No-SQL databases usage are rising considerably due to its easy implementation.
- Elasticshare as database is a future skill due to usage of cloud services
- Depending on the platform and programming languages No-SQL and Cloud SQL has more integrations.

DASHBOARD



[Cognos Dashboard](#)

Current Technology Usage

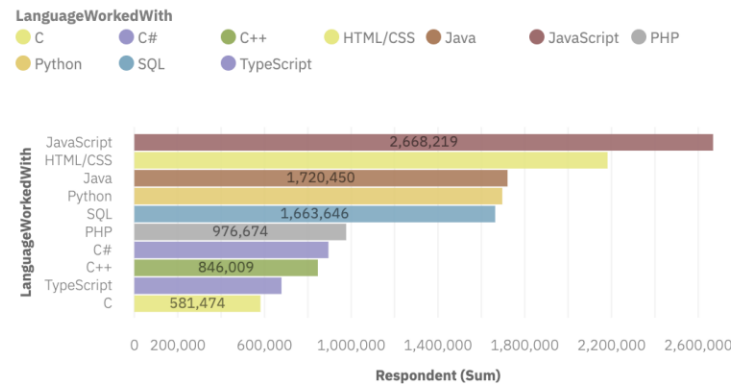
Filters

Current Technology Usage

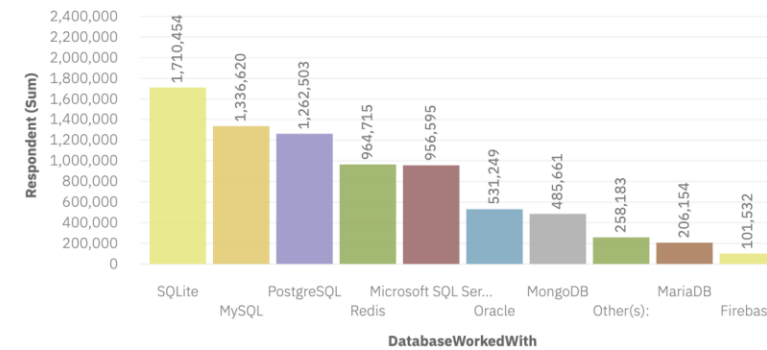
Future Technology Trend

Demographics

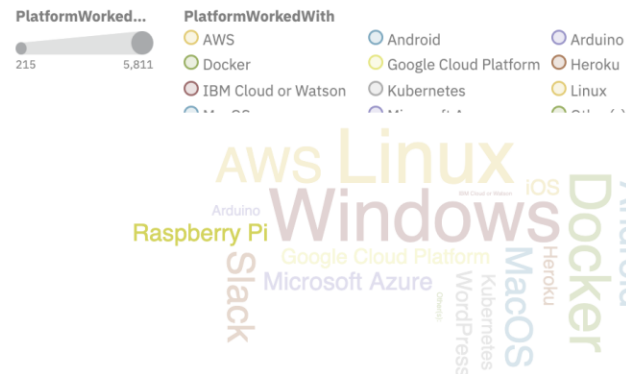
Top 10 LanguageWorkedWith



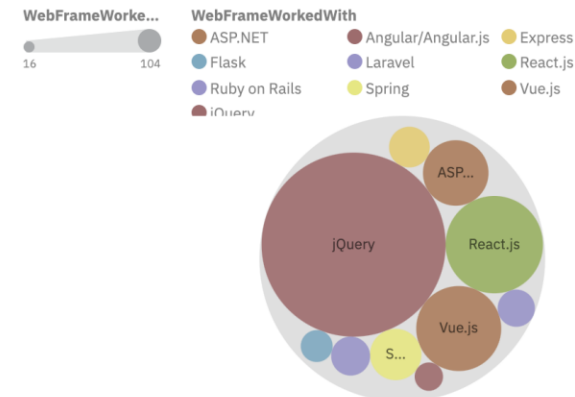
Top 10 DatabaseWorkedWith



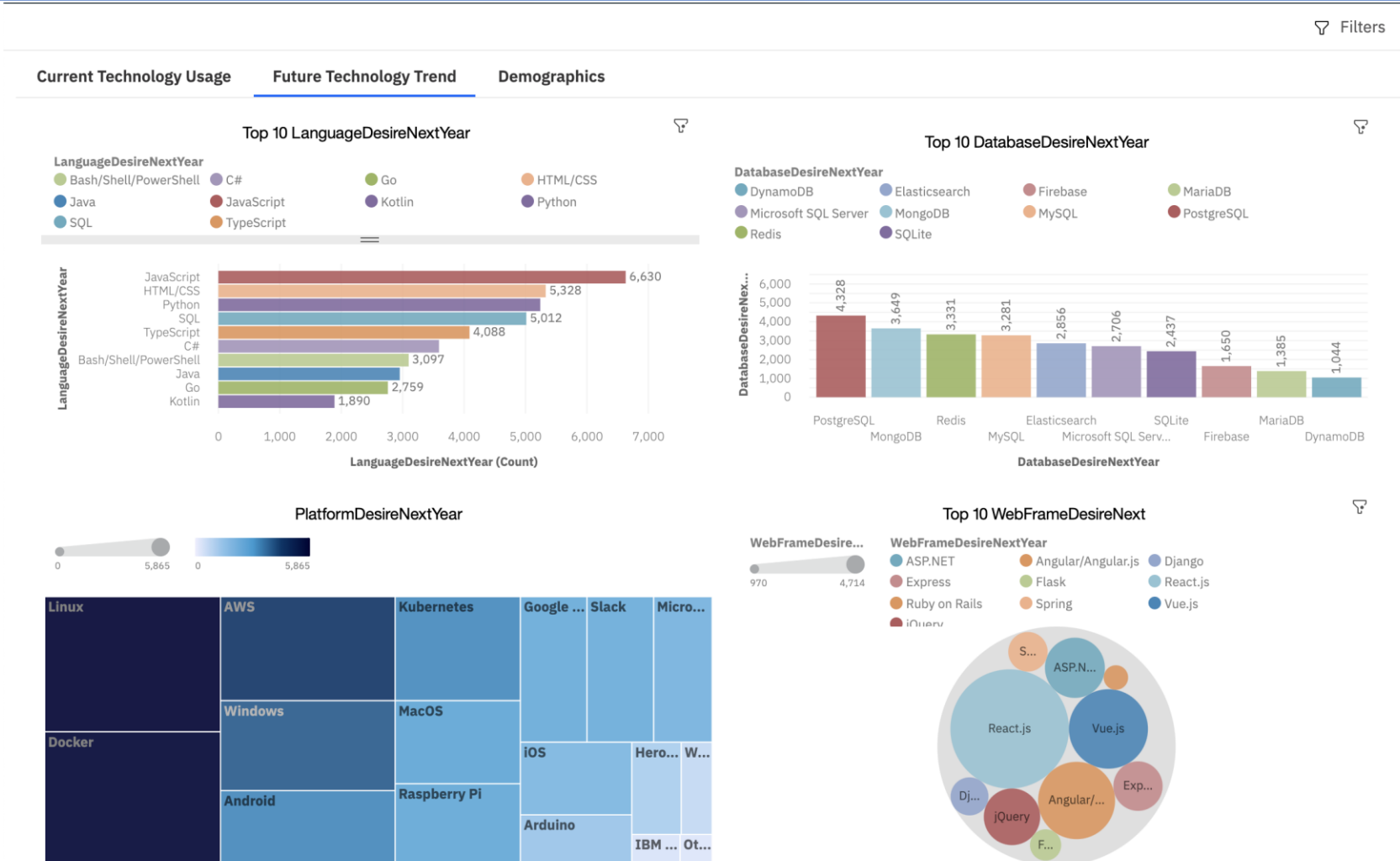
PlatformWorkedWith



Top 10 WebFrameWorkedWith



Future Technology Trend



Demographics

Filters

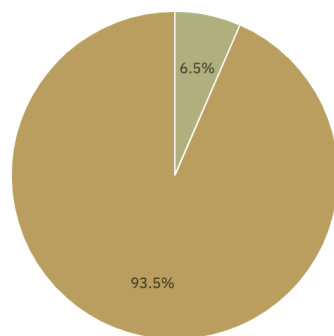
Current Technology Usage

Future Technology Trend

Demographics

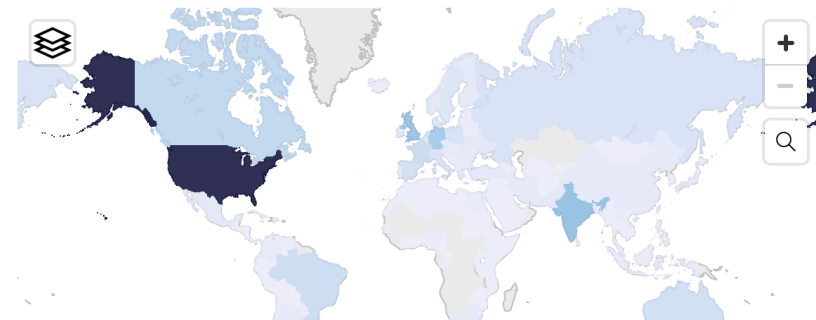
Respondent classified by Gender

Gender
● Woman ● Man

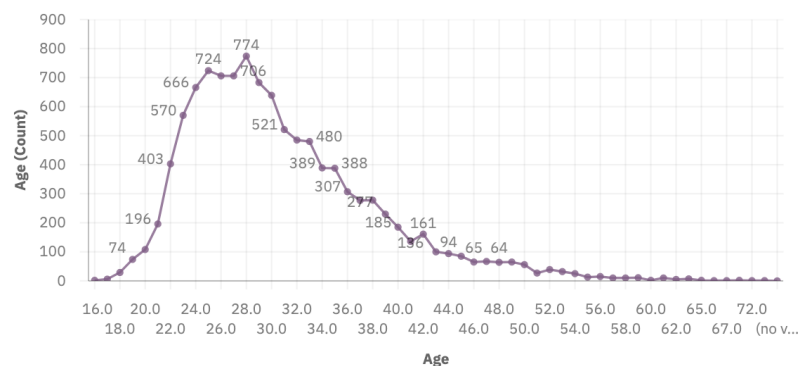


Respondent Count by Countries

Country (Count)
1 3,058



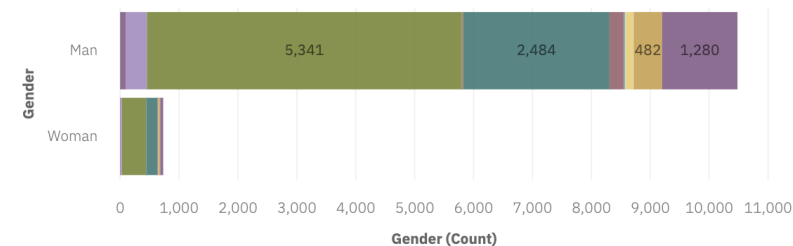
Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level

EdLevel

● (no value) ● Associate degree ● Bachelor's degree (BA, BS, ...)
● I never completed any formal ... ● Master's degree (MA, MS, ...)
● Primary/elementary school ● Professional degree (JD, MD, e...
● Secondary school (e.g. Americ...
● Some college/university study



DISCUSSION



- Europe and America is the faster growing developers regions probably due to its investment in new technologies.
- There are more men working in development than women along the world.
- Python and No-Sql technologies are the faster growing technologies due to the simplicity and integrations.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Python is the faster-growing programming language
- No-SQL databases will be used in the next years
- Most of the developers are men.

Implications

- Cloud computing services will take place and it is required to have an easy learning programming language as well as the integration.
- The development sector needs to be more inclusive to attract women to the industry.
- Databases will need to integrate the No-SQL scheme to continue growing.

CONCLUSION



- It is needed to be inclusive and tried to integrate women in the development.
- Cloud computing is affecting the business as well as the development skills.
- Job positions such as Data Scientist, Data Analyst, Cloud Engineering are growing faster.
- Full-Stack developers are need to perform changes in the new industry scheme.

APPENDIX

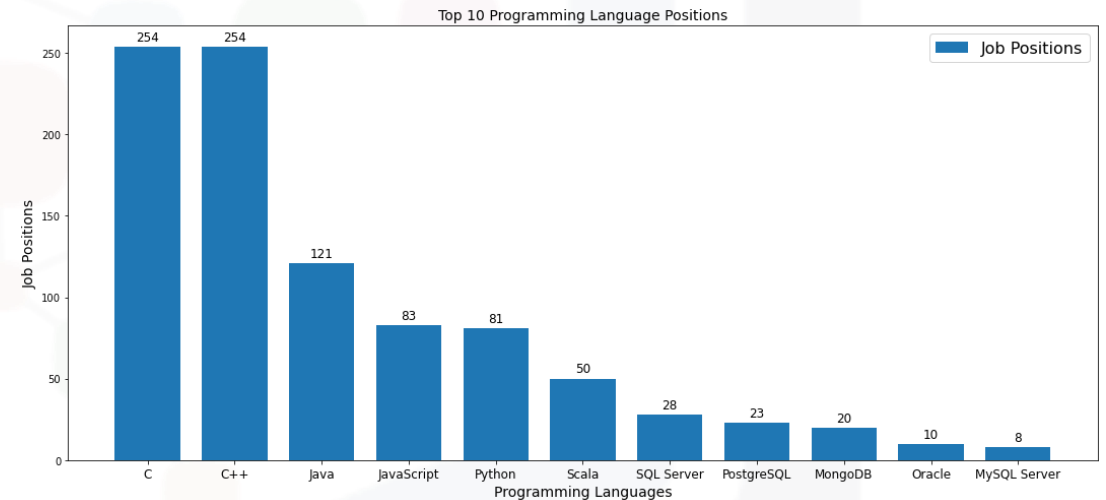


- Github Job positions
- Popular languages by annual average salary
- Respondent by regions
- Respondent by gender

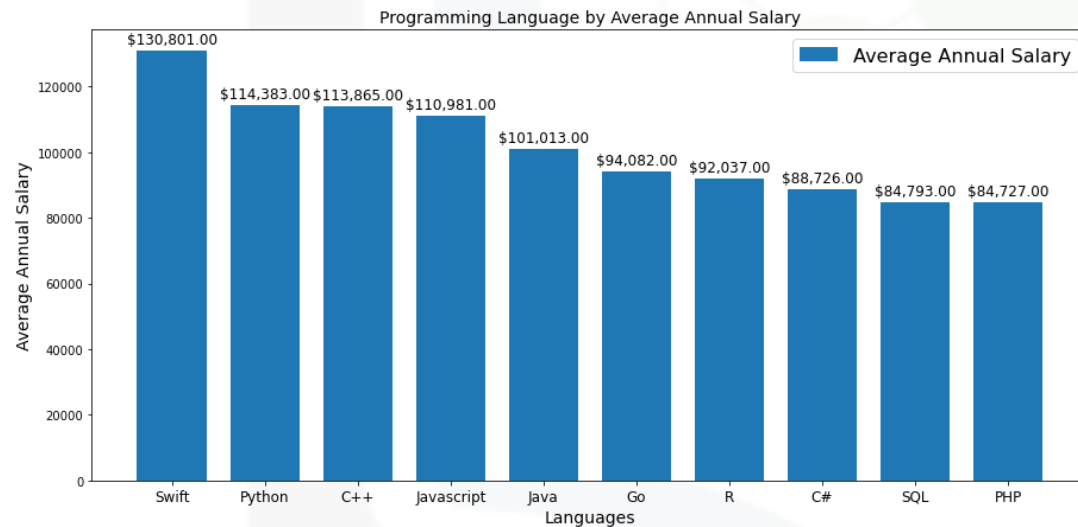
GITHUB JOB POSTINGS

The graphic illustrates the "Top 10 Programming Languages order by number of positions".

In this case, the programming languages with more positions are C and C++ standing by 254. On the other hand, the less require programming language is MySQL with 8 postions.



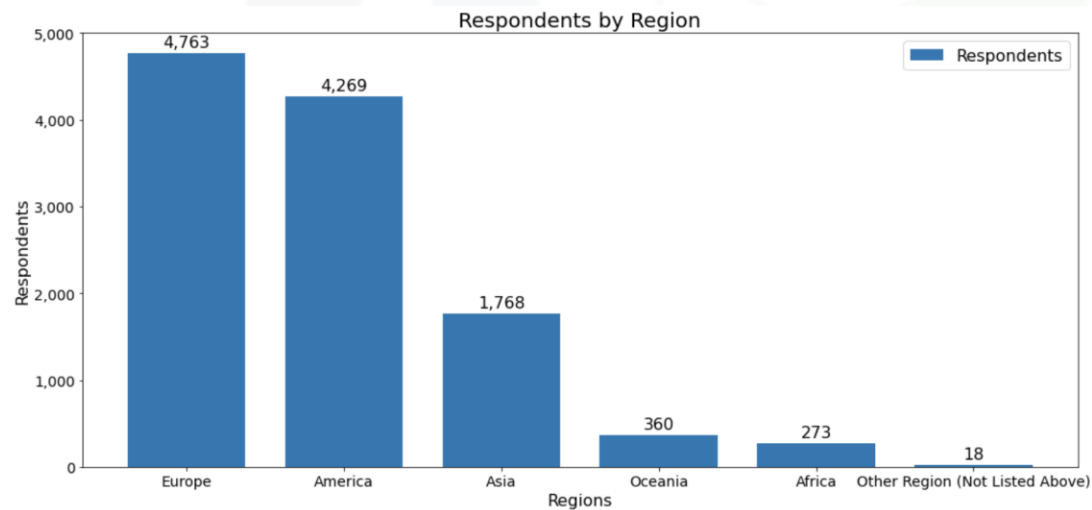
POPULAR LANGUAGES



The graphic shows the most popular languages order by its average annual salary.

In this chart, the most popular programming language is Swift with an Avg. Annual Salary standing on \$130,801.00 and the less popular is PHP with \$84,727.00 average annual salary.

Respondent by Region



- The left-hand bar chart illustrates how the regions are growing and illustrates the tendency on the current developer roles.

Respondent by Gender

- In the right-hand pie chart the gender of the respondent is plotted.
- Most of the developers are men and the minority could be women.

Respondent classified by Gender

