Stack Overflow Developer Survey Report 2019

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OUTLINE

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EXECUTIVE SUMMARY

These past years, developers considered as a high demand job in technology.

Using survey collected from Stack Overflow in **2019**, we will compare the **current trend** of language, database, platform and web frame used by developers and its **future trends**.

We also look at the **demography of developers** based on age, country, age, and education.

INTRODUCTION

We conduct analysis to observe :

- Programming language, platform, web frame, and databases usage current and future trend

- Demographic of the developers

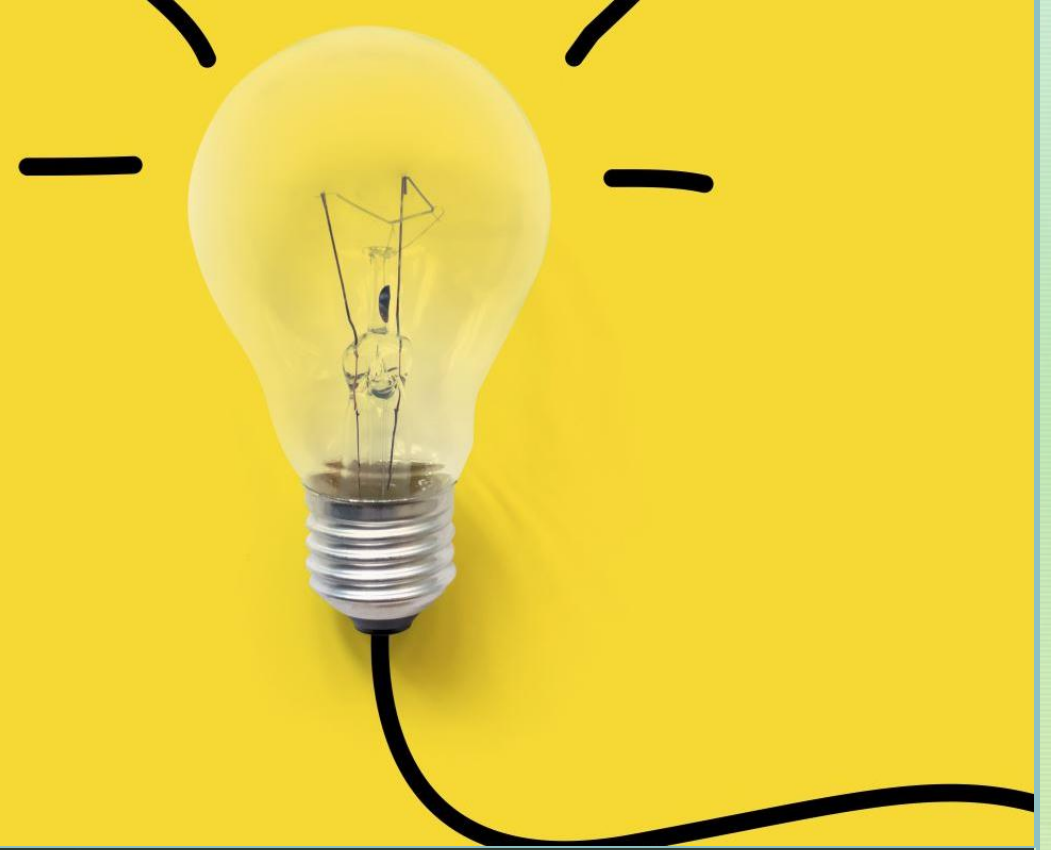As a reference for future developers to expand their career prospects

METHODOLOGY

Data collection :

- Survey of developers from Stack Overflow in 2019

- Saved in a form of csv
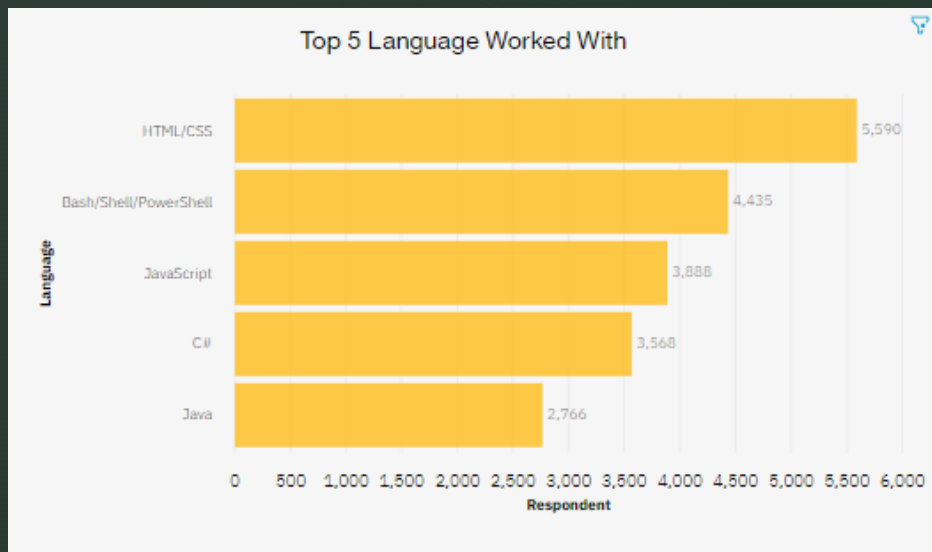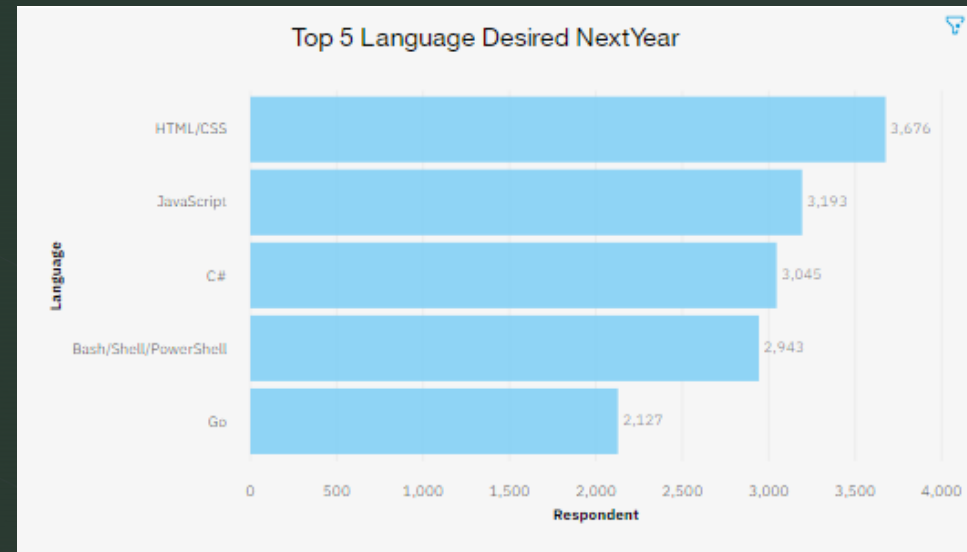
- Two sets of data : technologies and demographic

RESULTS

PROGRAMMING LANGUAGE TRENDS
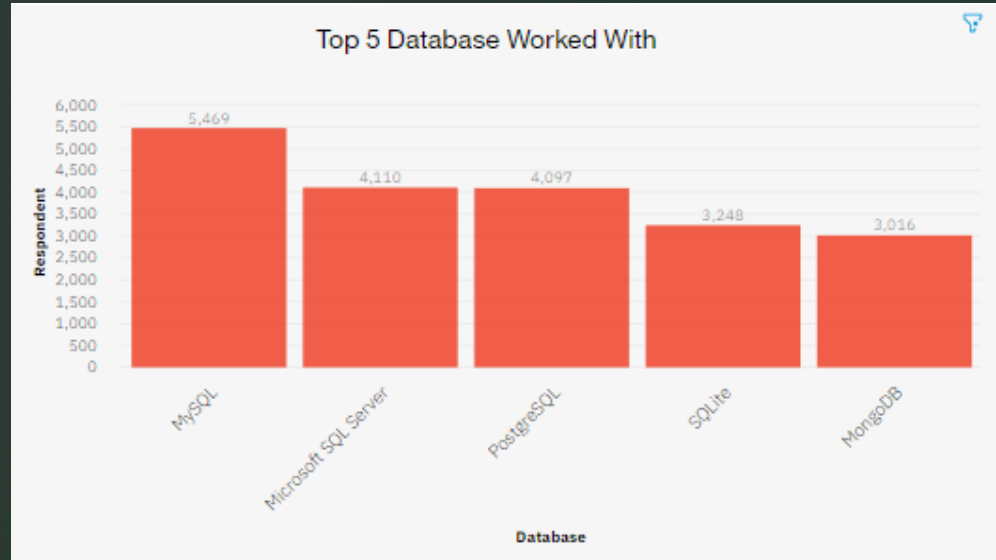
Current Year

Next Year

PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

- **HTML/CSS** has been the most used language and will remain as the most popular next year

- Next year, **Go** will shoot to the top 5 programming languages at number 5

- The other language as Javascript, Bash/Shell/Powershell, and C will remain popular next year
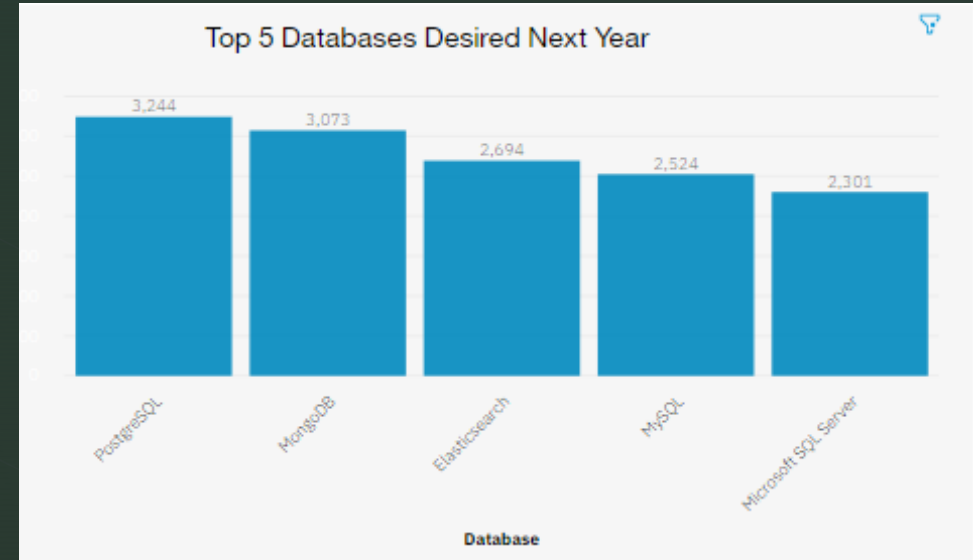
DATABASE TRENDS

Current Year

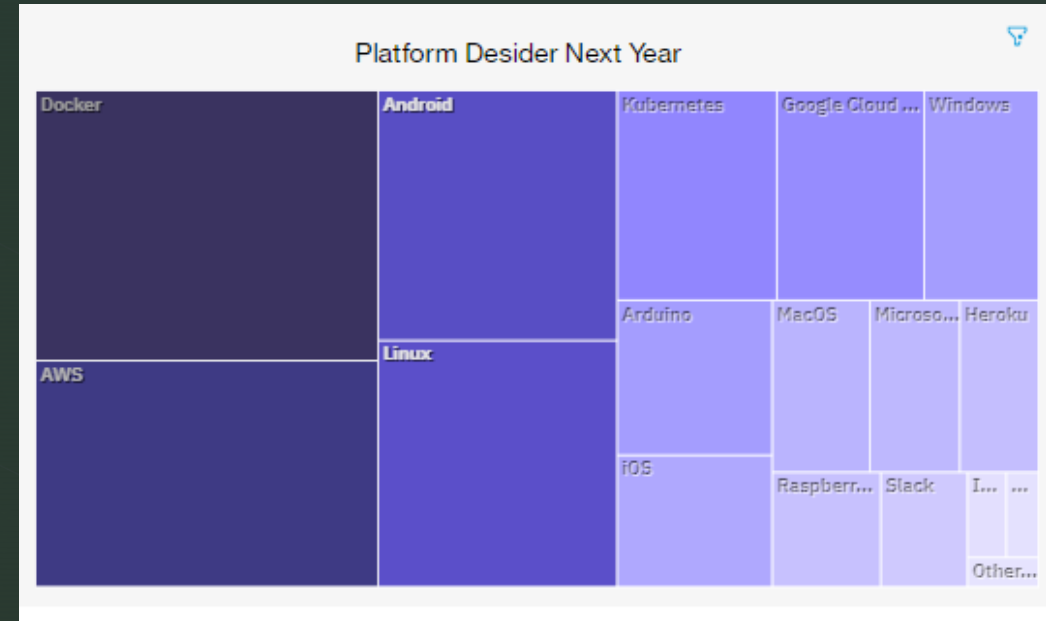Next Year

DATABASE TRENDS - FINDINGS & IMPLICATIONS

- **MySQL** is currently the most popular database, however in the future **PostgreSQL** may be more popular than MySQL

- There is a potential increase in popularity of **MongoDB** and **Elasticsearch** in the future

- **MySQL** and **Microsoft SQL Server** will remain popular in the next few years.

PLATFORM TRENDS

Current Year

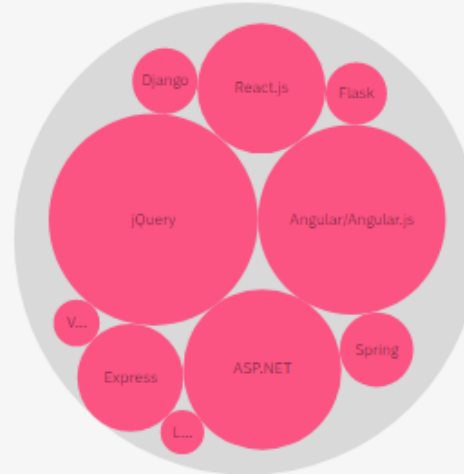Next Year

PLATFORM TRENDS - FINDINGS & IMPLICATIONS

- **Docker**, **Linux**, and **AWS** are in the top three of the most popular platform currently and next year, however in the future there is a potential that majority of developers will also work on **Android** platform

- Windows, Microsoft Azure, MacOS and iOS will remain as popular platform for developers

- There is a potential increase of the use of **Google Cloud Platform** in the future
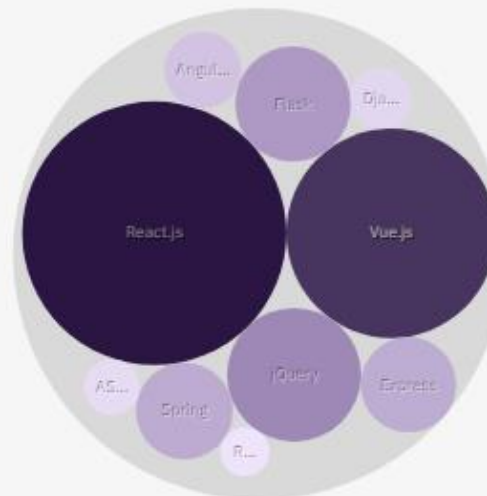

GNU/LINUX

Web Frame Trends

Top 10 Webframe Worked With


Top 10 Webframe Desired Next Year

WEB FRAME TRENDS - FINDINGS & IMPLICATIONS

▪ Currently, **jQuery** and **Angular** are two most used platform, followed by React.js, ASP.NET and Express

▪ In the future, Angular is still expected to be popular. However, **React.js, Vue.js** and **Flask** will raise in popularity

▪ We will also see that **Django** will have a slight increase in popularity, in contrast with **jQuery** which will be less popular in the future.
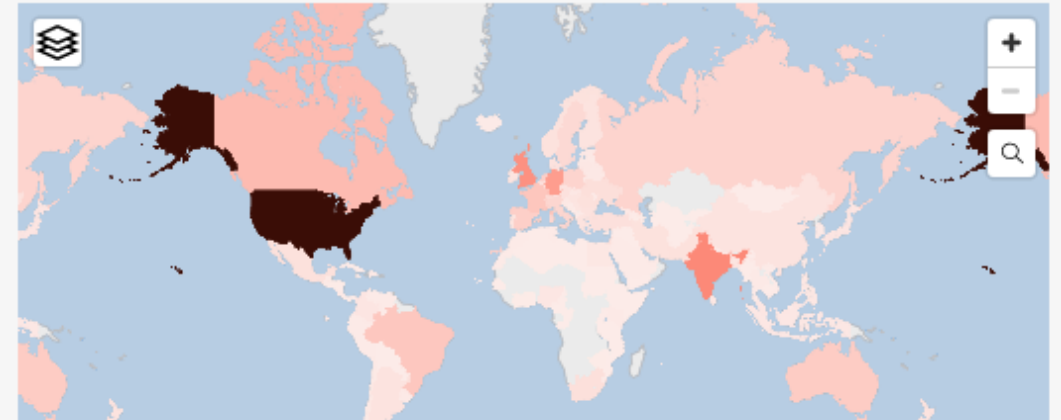
Demography of Respondents
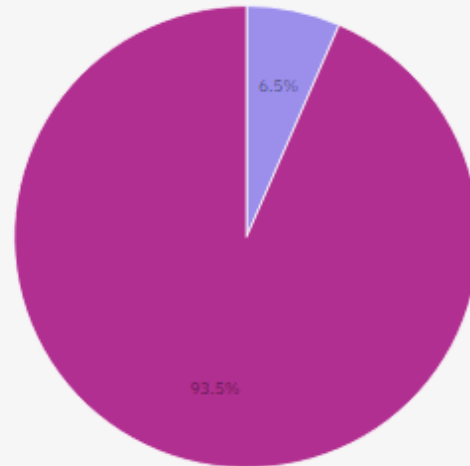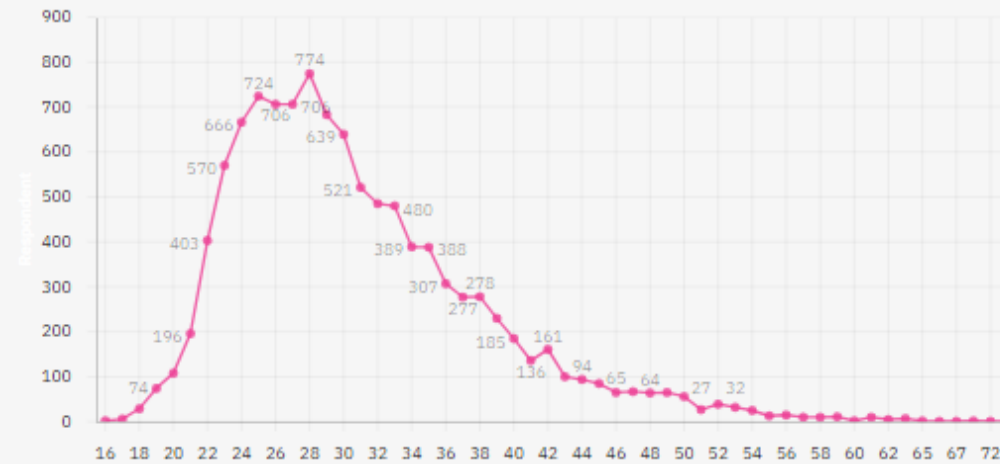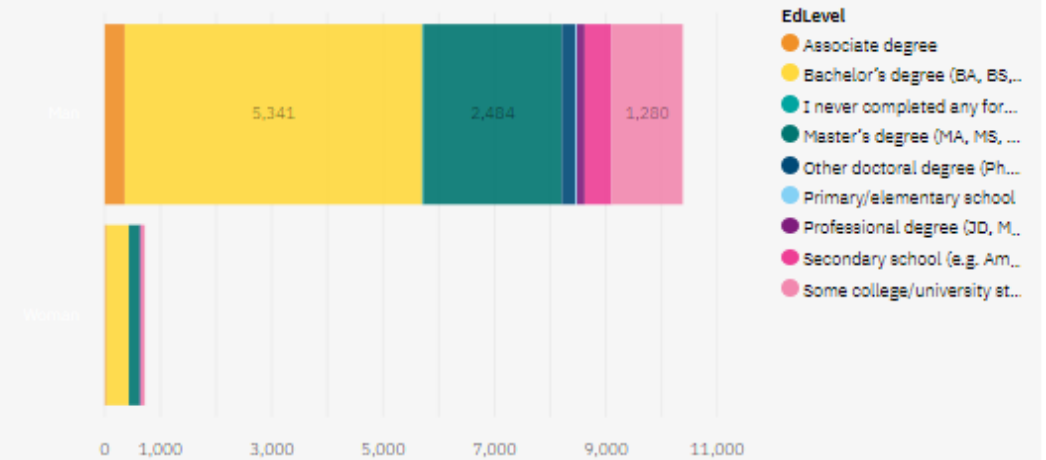
DEMOGRAPHIC - FINDINGS & IMPLICATIONS

- The majority of respondent is **man**, counted for more than 90% and only the small portion is woman

- The origin country of respondents mainly from The **US**, followed by England, Germany and India.

- The developer age is ranged from **16-72 years old,** but the majority of respondent is in their **late 20s and early 30s**.

- For education level, either woman and man mostly hold **bachelor degree** followed by master degree. A moderate number of respondent (1280) went to college but didn't finish any degree.

DASHBOARD CLICK HERE

DASHBOARD TAB 1

click to dashboard
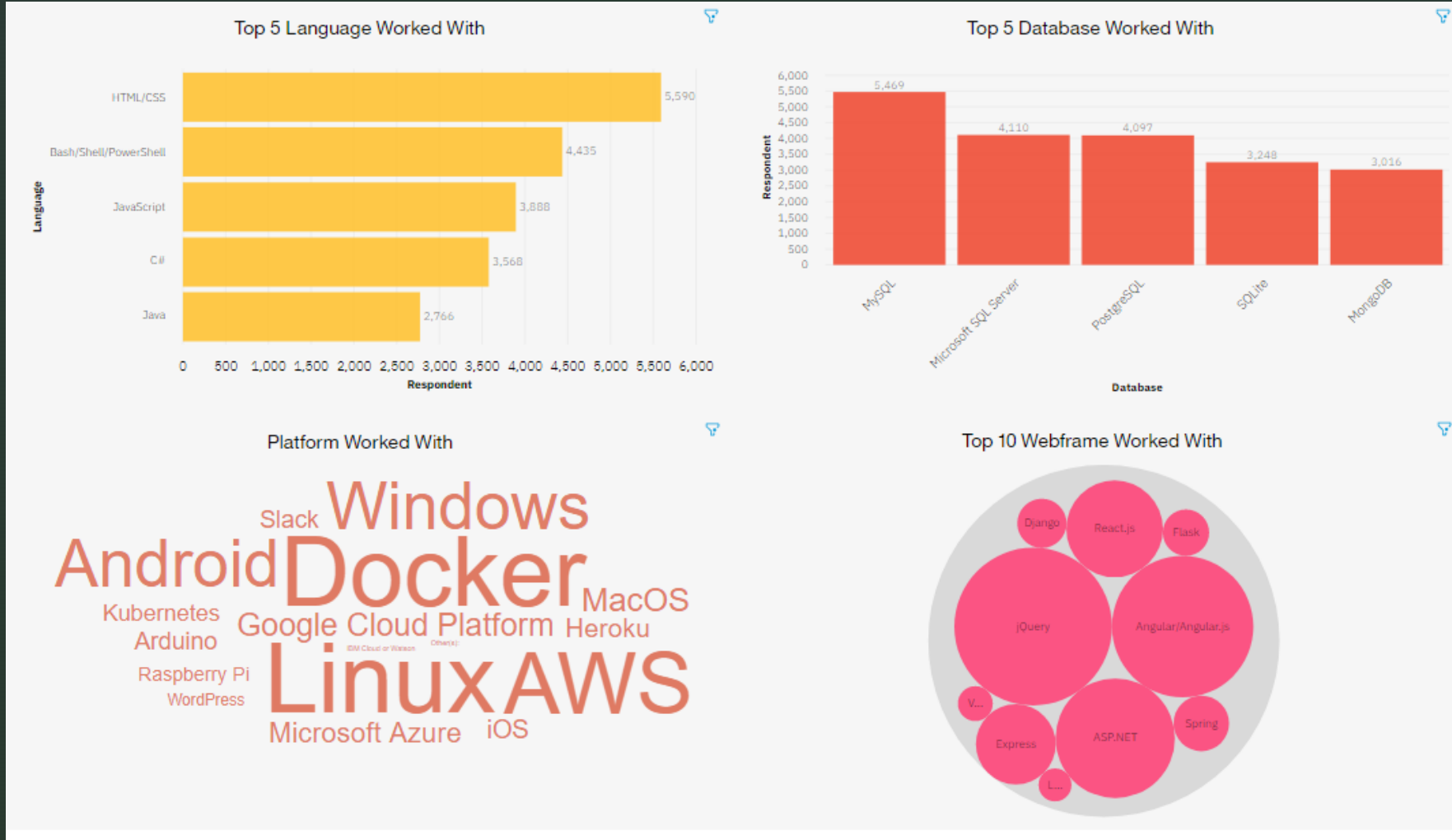
DASHBOARD TAB 2

click to dashboard
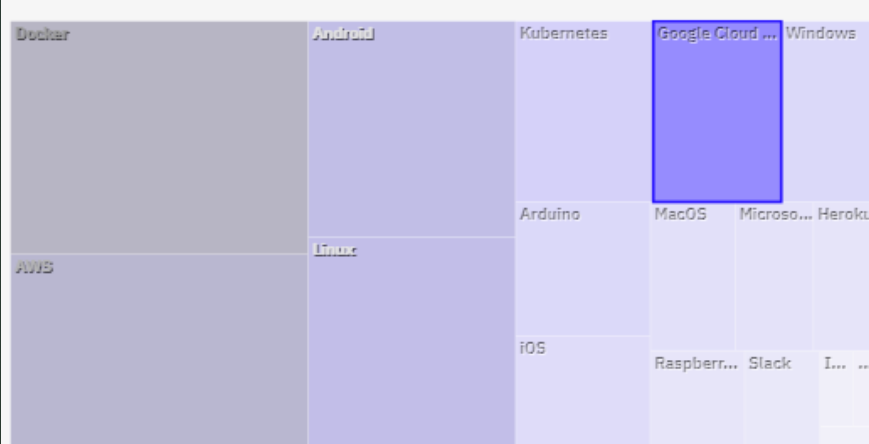
DASHBOARD TAB 3

click to dashboard
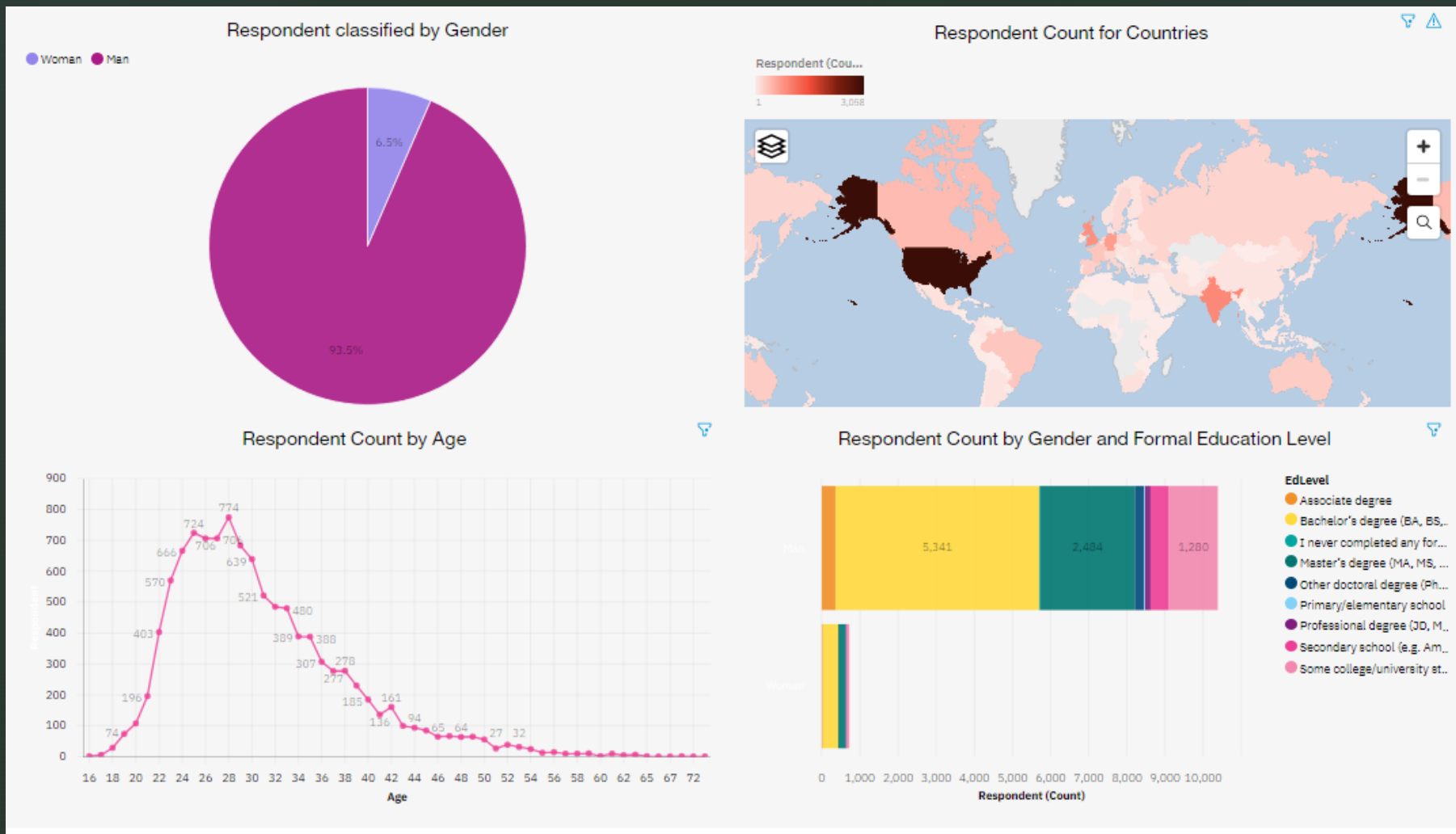
DISCUSSION

- What causes the trend changes?

- What kind of language, database, platform and web frame will be the most required skill of developers?

- Why job developers still dominated by man?

OVERALL FINDINGS & IMPLICATIONS

HTML/CSS is still the most popular language for now and the next few years, but Go language has a promising future.

PostgreSQL has a potential raise of popularity in the future.

Android is becoming one the most popular platforms for developers

React.js and Vue.js will be used more in the future while jQuery is becoming less popular.

Developer demography is dominated by man around 20-30 years old and in average have bachelor or master degree.

CONCLUSION

This analysis shows future changes in trends of language, database, platform and web frame used by developers.

Job as developer, though dominated with certain demographic, can be done by almost all age range and education levels.

APPENDIX

- Github job

- Popular language

GITHUB JOB POSTINGS

Technology	Number of Jobs
C	184
Java	83
JavaScript	65
Python	51
Scala	47
C++	24
MongoDB	18
PostgreSQL	17
SQL Server	16
C#	14
Oracle	8
MySQL Server	7

Number of Jobs

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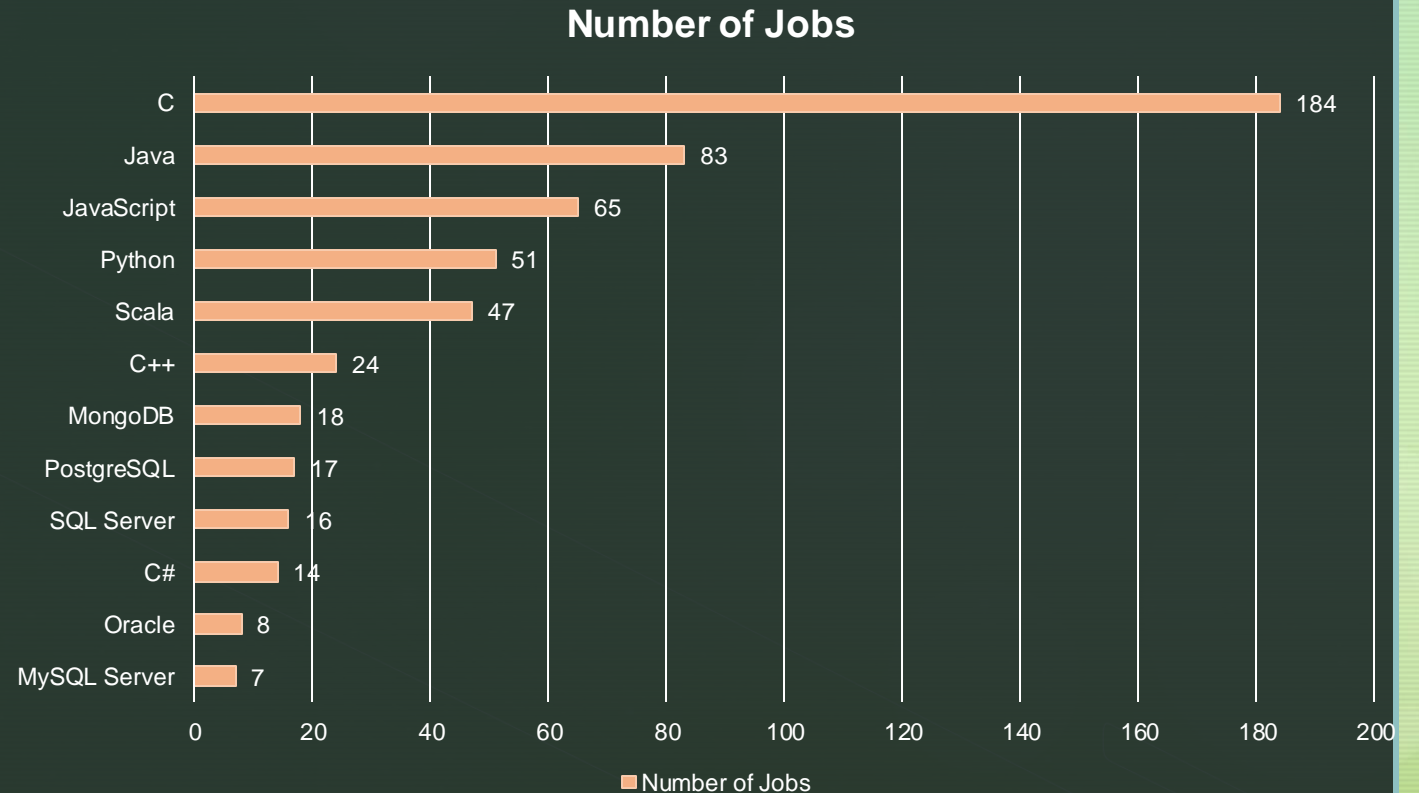
POPULAR LANGUAGES

Language	Average Annual Salary
Java	$101,013
Javascript	$110,981
C++	$113,865
Python	$114,383
Swift	$130,801
PHP	$84,727
SQL	$84,793
C#	$88,726
R	$92,037
Go	$94,082

Average Annual Salary

Language	Value
Swift	130801
Python	114383
C++	113865
Javascript	110981
Java	101013
Go	94082
R	92037
C#	88726
SQL	84793
PHP	84727

■ Average Annual Salary