Stack Overflow Developer Survey

Part 1

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OUTLINE



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





EXECUTIVE SUMMARY



- Data contextualization and goal of the project
- Data collection and gathering
 - API
 - Web Scrapping
 - Request and Soup Library
- Data Wrangling and Analysis
- Data Visualization
- Dashboards- results and discussion
- Conclusion and further steps

INTRODUCTION



- The entire project is carried out on the dataset of Stack's Overflow's annual developer survey.
- Stack Overflow is a very popular platform used by developers but the dataset does not include all the developers in the developers community evenly
- This dataset will be used for analysis to show the trends of the developers and in which direction the changes in the choice of the programming languages and the markets of the software are going

METHODOLOGY



- Data collection- We used two methods
 - API
 - Web Scrapping (which involves Request and Beautiful Soup libraries)
- Data Wrangling
 - Finding null values
 - Removing or dropping of duplicate values
 - Filling the missing values with mean, median or mode
 - Saving the cleaned dataset
- Exploratory Data Analysis
 - Finding and analyzing the pattern and trends in the data
 - Correlation and Pearson Coefficint
 - Handling Outliers
- Data Visualization
 - Creation of several visualization plots
 - Distribution of data
- Dashboards
 - Creation of Dashboards using Google Looker

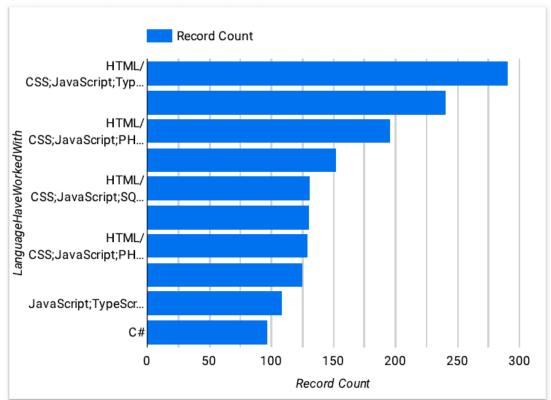




PROGRAMMING LANGUAGE TRENDS

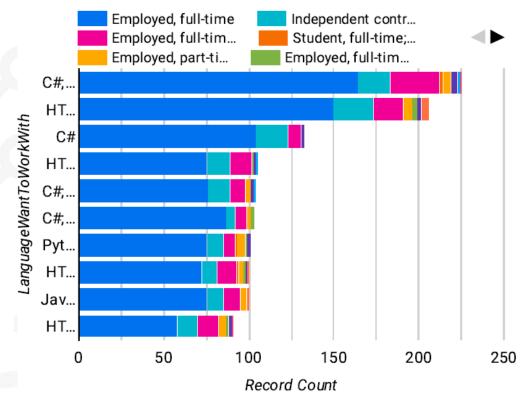
Current Year

Top 10 Programming Languages



Next Year

Top 10 Languages Desired Next Year







PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings:

- HTML, C# is the most widely used programming language and is believed to remain popular in the future also
- Java and SQL ranks the second highest in the current and in the future also
- **Python** is not in the topmost priority in the future

Implications:

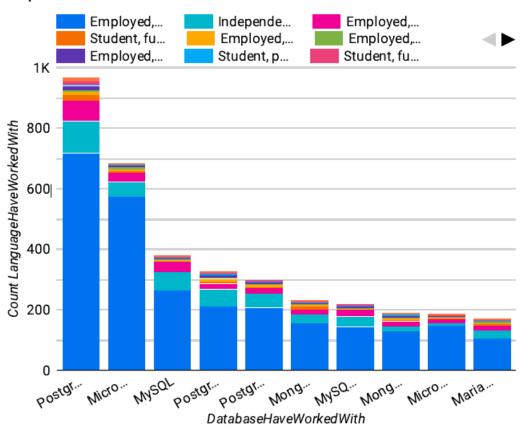
- Web development and programming is and will remain an important and continue to be a strong career path
- Highlighting the development of relational databases and management systems
- Shifting of the trend to more modern language



DATABASE TRENDS

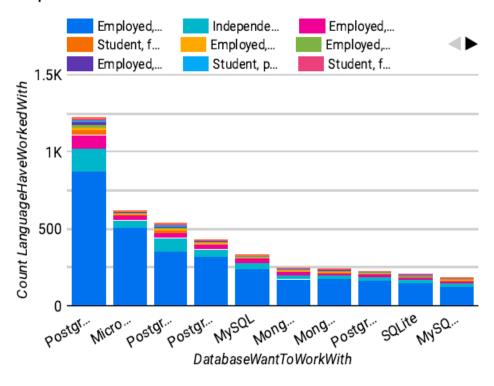
Current Year

Top 10 Databases



Next Year

Top 10 Databases Desired Next Year







DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL is dominant in the current and is believed to continue to be dominant in the future
- Mircosoft SQL is the second highest as compared to Postgre SQL
- Redis maz overtake MongoDB in the coming years

Implications

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- Implication 2
- Implication 3

DASHBOARD

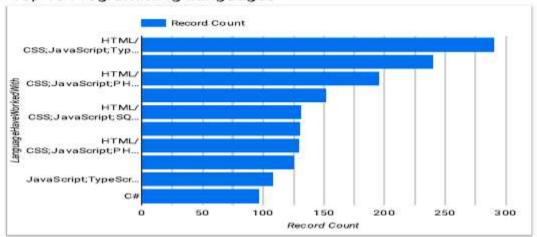


The following slides are for presenting the Dashboards which are created using Google Looker



DASHBOARD TAB 1

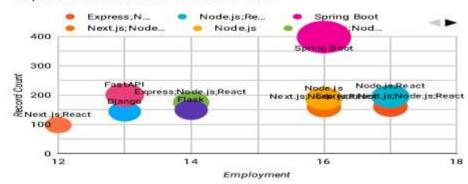




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Top 10 desired Web Frameworks

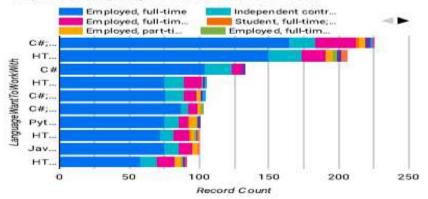




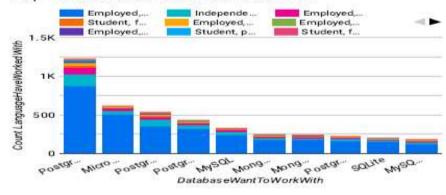


DASHBOARD TAB 2

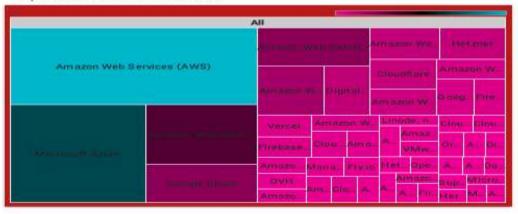
Top 10 Languages Desired Next Year



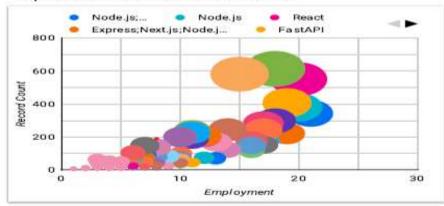
Top 10 Databases Desired Next Year



Top 10 Desired Platforms



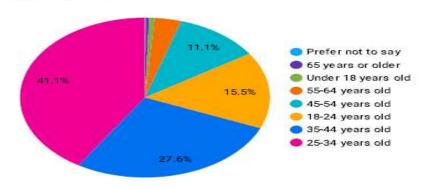
Top 10 Desired Web Frameworks





DASHBOARD TAB 3

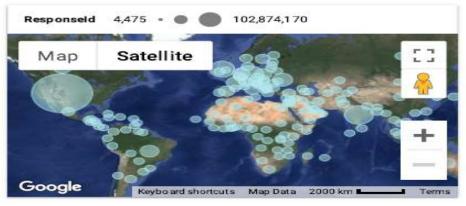
Age by Responseld



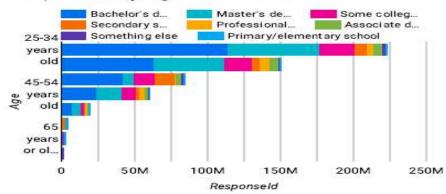
Responseld and Record Count by EdLevel



Country by Responseld



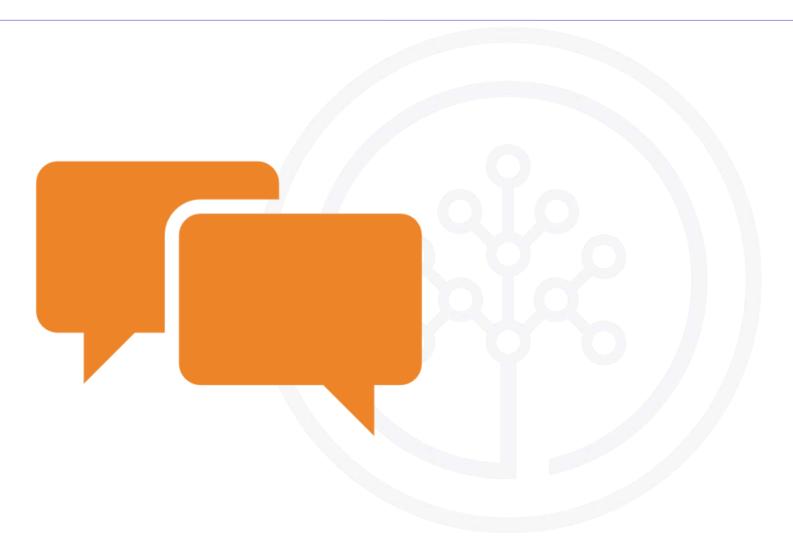
Responseld by Age and EdLevel







DISCUSSION







OVERALL FINDINGS & IMPLICATIONS

Findings

- Java Script, SQL, HTML/CSS are the widely used programming languages.
- Postgre SQL and Microsoft SQL are leading in database criteria
- Majority are 25-34 years old and are younger and tech savy

Implications

- Tech people should learn
 JavaScript, SQL for the popularity
 and demands they are going to
 have in the future.
- 25-34 years old represent a huge proportion of the market
- Development for PostgreSQL, MySQL and SQLite has given their popularity among users.



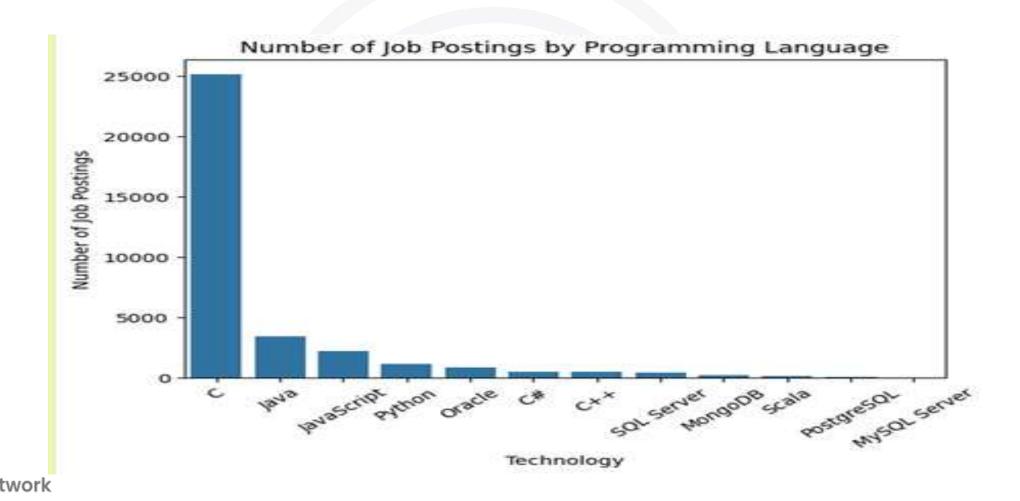


CONCLUSION



- HTML, Java script, HTML/CSS and Python languages are growing rapidly in the job market.
- PostgreSQL, SQLite and MongoDB are also are becoming popular
- The upcoming generation and newcomers should be encouraged to learn these languages.

JOB POSTINGS







POPULAR LANGUAGES

