



STACK OVERFLOW DEVELOPER SURVEY

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OUTLINE



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

EXECUTIVE SUMMARY



- Data contextualization and analysis goal.
- Methodology description.
 - Data Gathering
 - Data Analysis
 - Data Visualizations
- Results presentation supported with graphs and trends.
- Discussion of overall findings and implications regarding the results previously exposed.
- Final conclusions of the carried out research.

INTRODUCTION



- Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of people who code around the world.
- Results don't represent everyone in the developer community evenly.
- Nearly 90,000 developers.
- Trends to predict where the developers are going.
- Characterization of developers around the globe.

METHODOLOGY



- Collect survey data & explore its content
 - Web Scraping.
 - APIs.
 - Request library.
- Data Wrangling
- Exploratory data analysis
 - Analyzing data distribution.
 - Handling outliers.
 - Correlations.
- Data Visualization
 - Highlight distribution of data, relationships, the composition and comparison of data.
- Dashboards

RESULTS

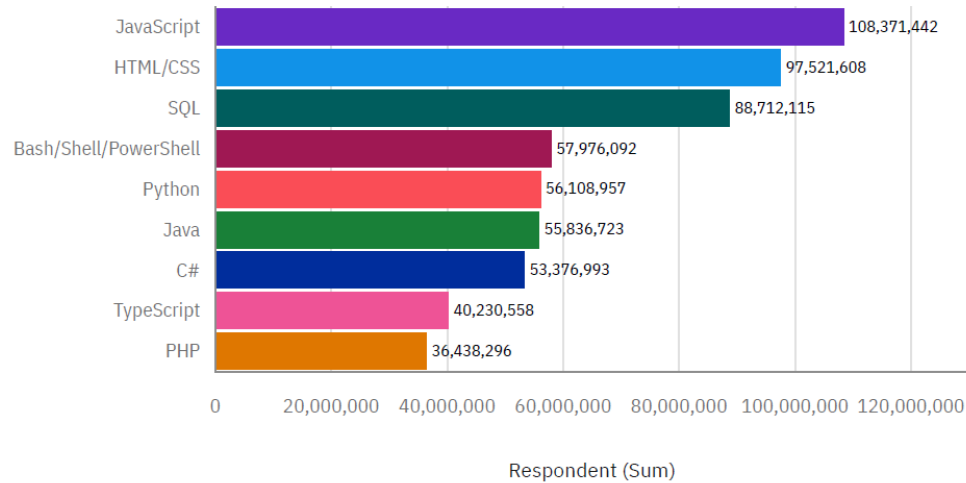


PROGRAMMING LANGUAGE TRENDS

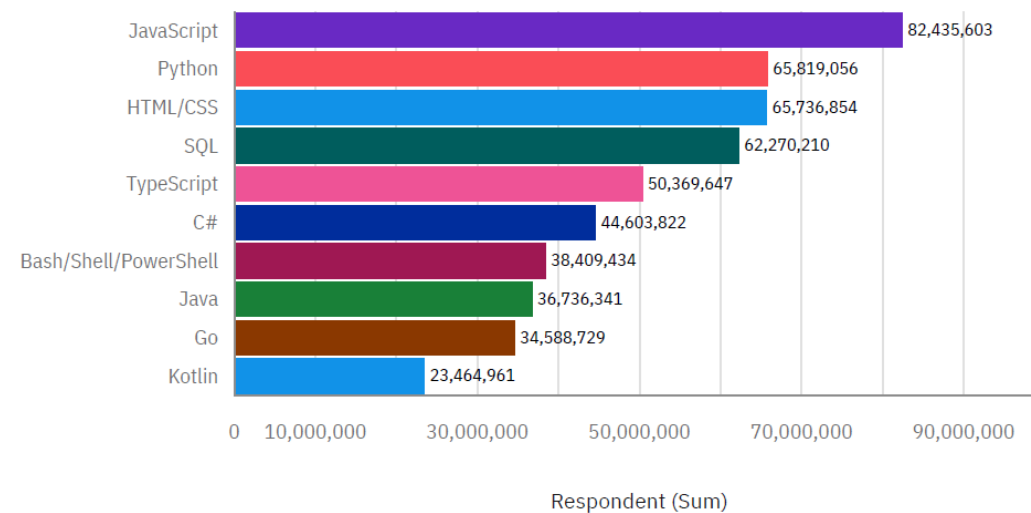
Current Year

Next Year

Top 10 programming language experience



Top 10 Desired Languages To Learn



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript seems to keep as leading language.
- Python fastest growing.
- Great interest in TypeScript.

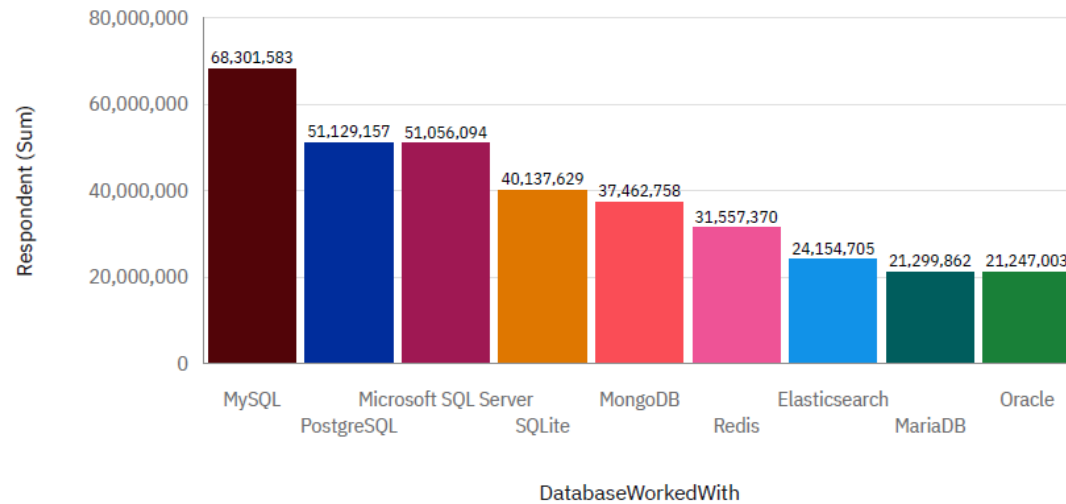
Implications

- Possible developers migration from JavaScript to TypeScript.

DATABASE TRENDS

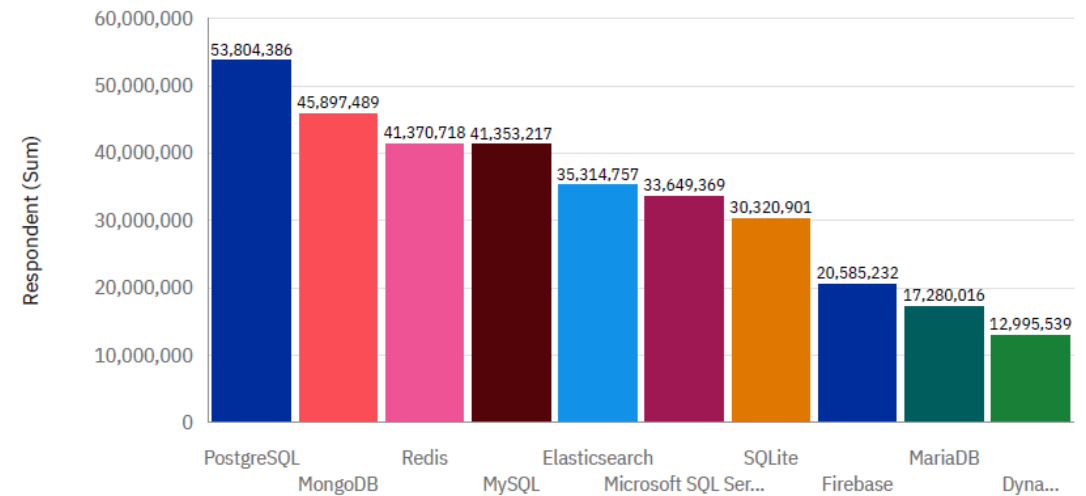
Current Year

Top 10 Database Worked With



Next Year

Top 10 Desired Databases To Learn



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL as most used database.
- Lack of interest in Microsoft SQL Server and SQLite.
- Increasing interest in PostgreSQL and MongoDB.

Implications

- Microsoft SQL Server and SQLite losing ground in the market.
- PostgreSQL and MongoDB establishment in the market.

DASHBOARD

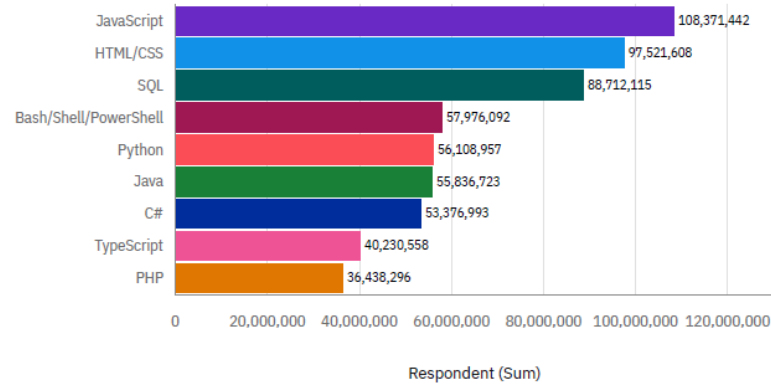


[GitHub](#)

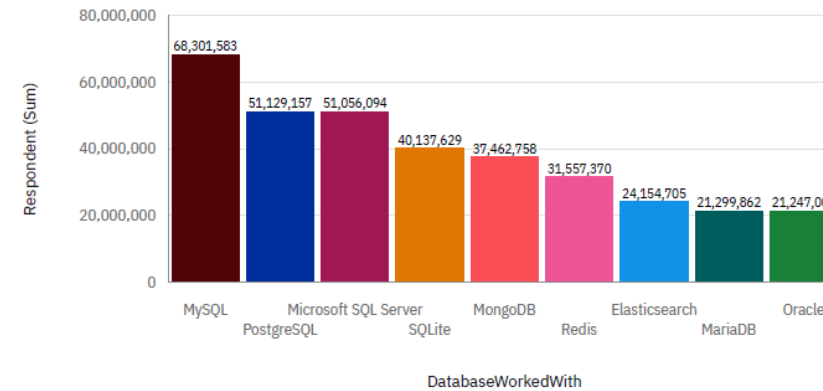
CURRENT TECHNOLOGY USAGE

Current Technology Usage

Top 10 programming language experience



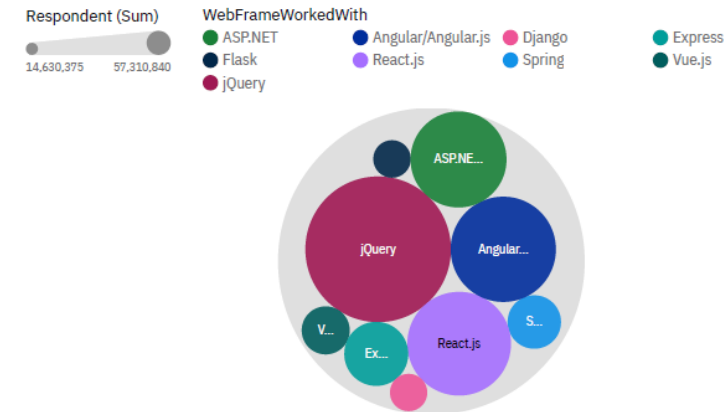
Top 10 Database Worked With



Platforms Interacted



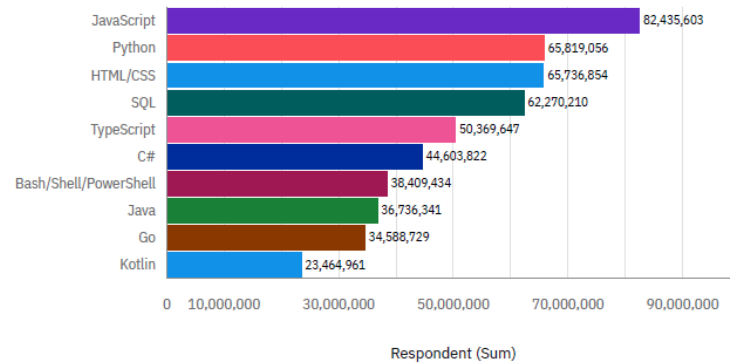
Top 10 WebFrames Used



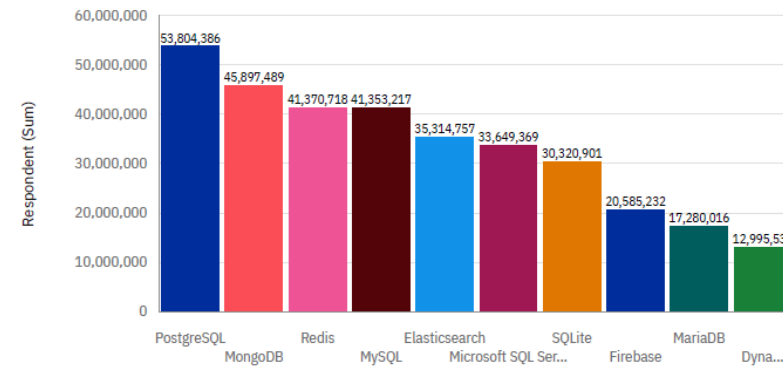
FUTURE TECHNOLOGY TREND

Future Technology Trend

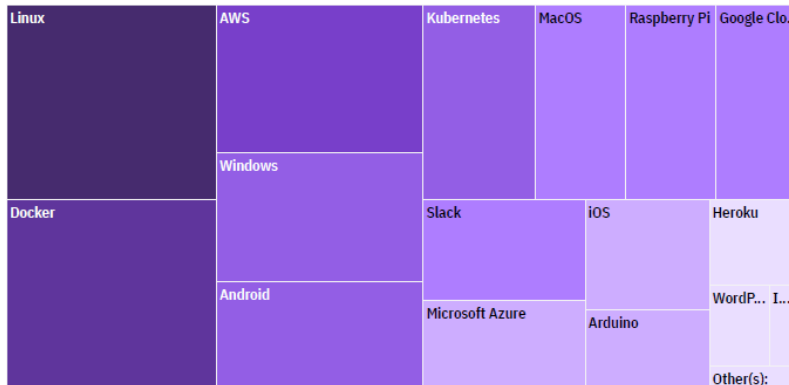
Top 10 Desired Languages To Learn



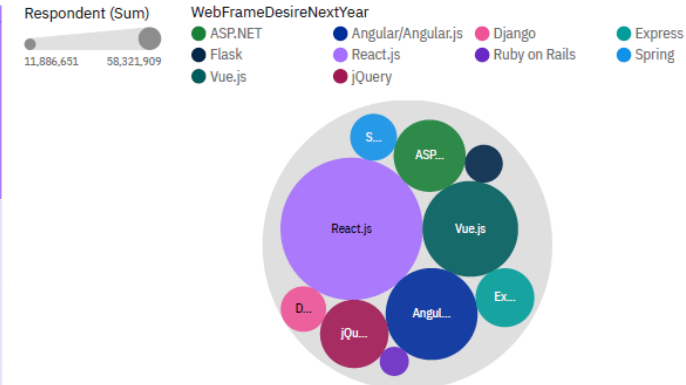
Top 10 Desired Databases To Learn



Platforms Next Year



Top 10 WebFrames Next Year

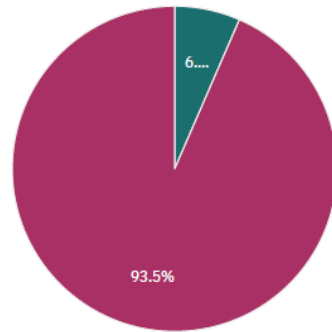


DEMOGRAPHICS

Demographics

Respondent by Gender

Gender
● Woman ● Man

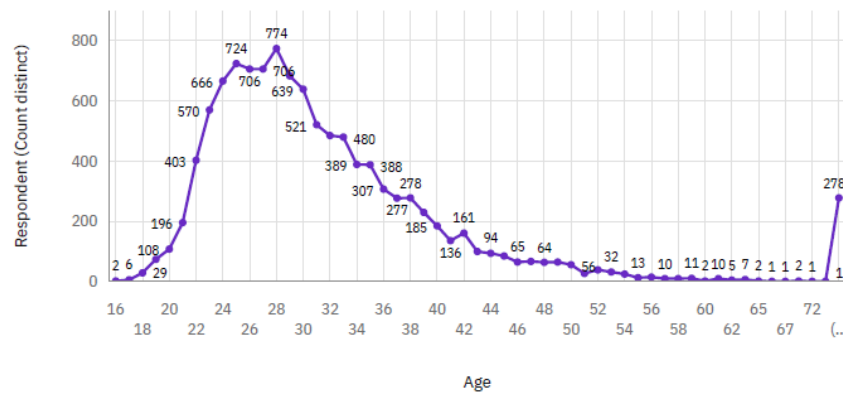


Respondent Locations

Respondent (Count)
1 3,058

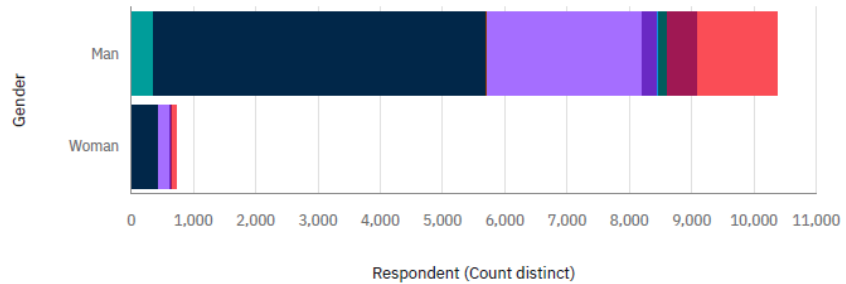


Respondent by Age



Formal Education Level/Gender

EdLevel
● Associate degree ● Bachelor's degree (BA, BS, B.Eng....
● Master's degree (MA, MS, M.Eng.,.... ● Other doctoral degree (Ph.D., Ed.D....
● Professional degree (JD, MD, etc.) ● Secondary school (e.g. American ...
● I never completed any formal edu...
● Primary/elementary school
● Some college/university study wit...



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript widely used and TypeScript getting popular.
- Over 90% young male developers.
- Developers mostly located in developed countries.

Implications

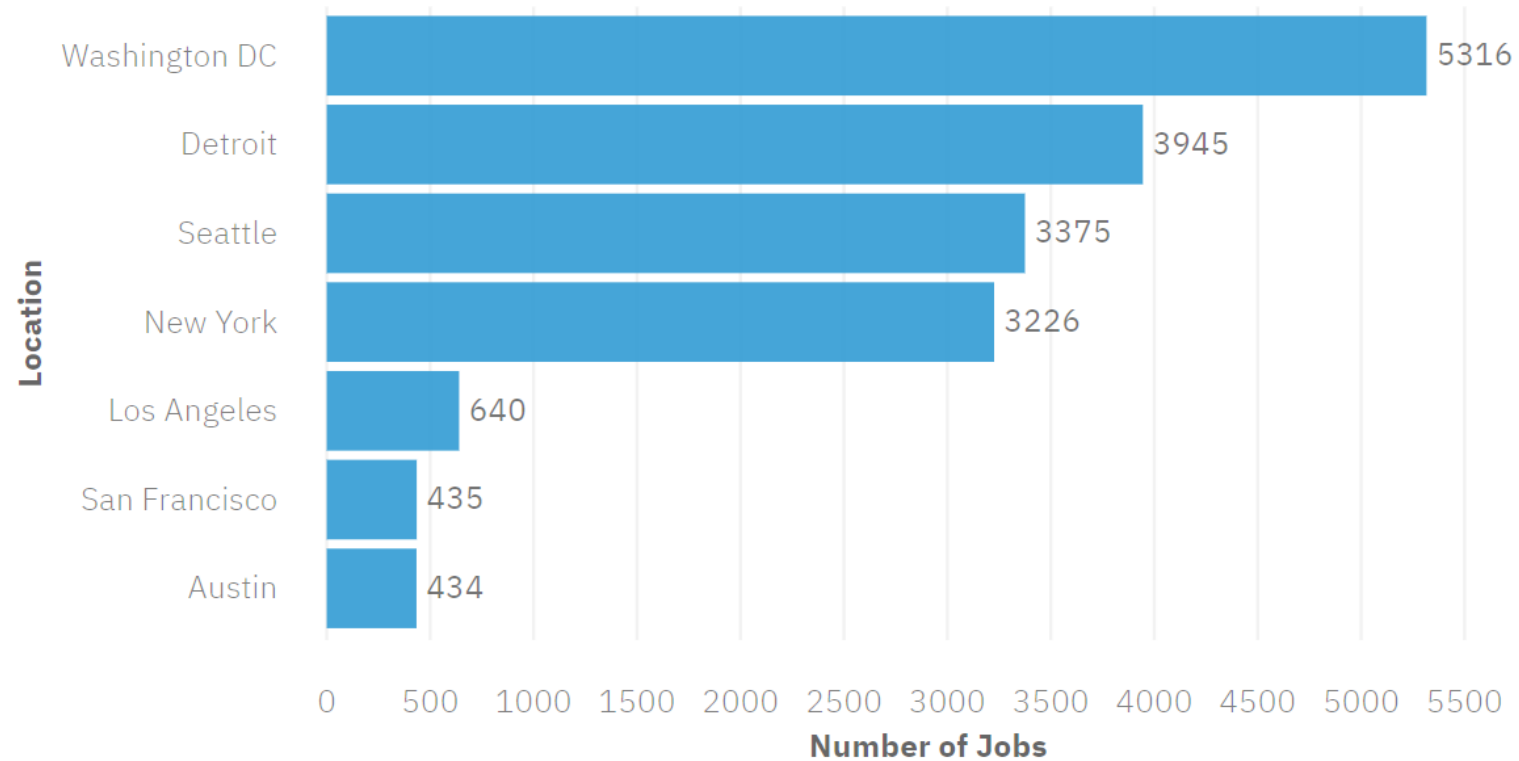
- JavaScript and TypeScript web frames gaining followers.
- Global polarization of developers location and gender.
- Young developers without postgrad studies on its majority.

CONCLUSION



- Developers are people with very marked characteristics.
- A good idea of popularity trends of different tools, platforms and languages can be obtained.
- There is a job to be done to spread accessibility of this labor market to countries in development.

JOB POSTINGS



POPULAR LANGUAGES

