



THE STACK OVERFLOW DEVELOPER SURVEY IN 2019

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OUTLINE



Executive Summary

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Methodology

Results

- Visualization – Charts
- Dashboard

Discussion

- Findings & Implications

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EXECUTIVE SUMMARY



- As organizations increasingly use cutting-edge technology to better serve clients and to gain competitive advantage over other organizations.
- It is essential to identify in-demand skills for the future.
- This presentation will cover the trends of:
 - The current technologies
 - The future technologies
 - Demographics

INTRODUCTION



- This presentation has been created to provide insights of current and future technologies recorded by respondents (developers and organizations) from various background.
- There is a high skills shortage in IT.
- The purposes:
 - is to identify in-demand skills to help the organizations build robust solutions, be highly efficient and gain maximum profits.
 - To ensure the developers and organizations can acquire the skills early on.

METHODOLOGY



Data collection
from Stack
Overflow
developer
survey in 2019

Data
Wrangling

Data
Exploration

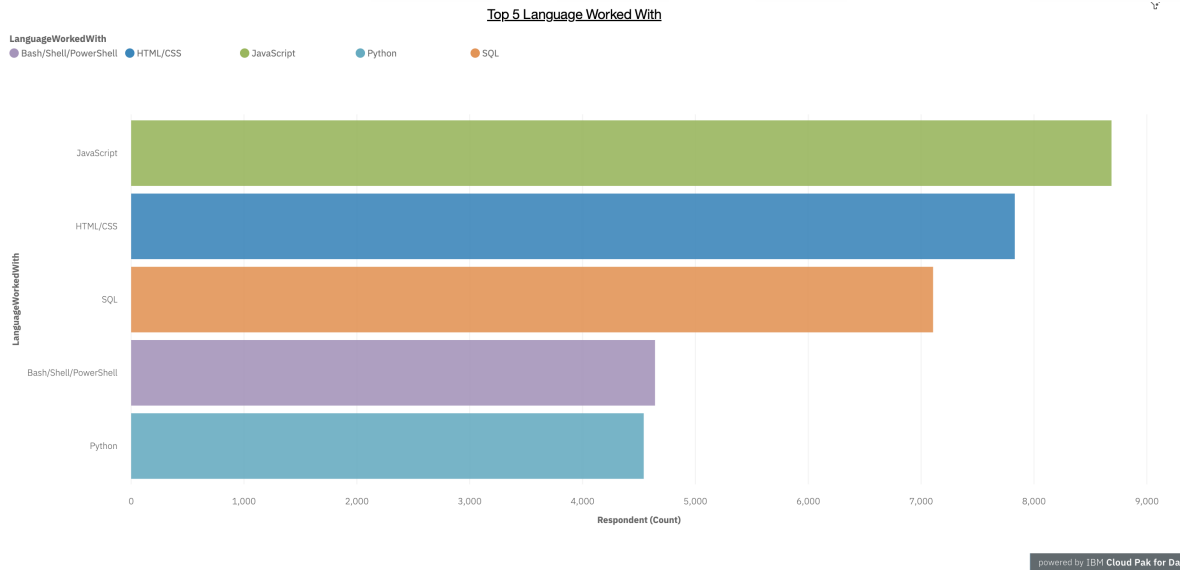
Data
Visualization
using IBM
cognos

RESULTS

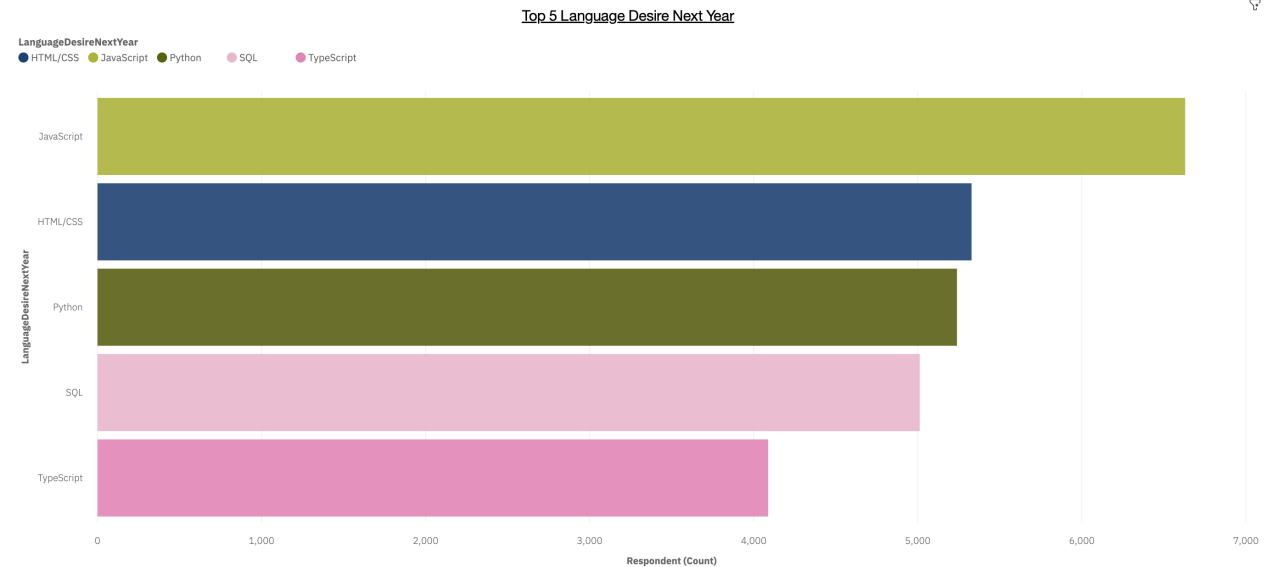
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PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Java Script remains the most popular programming language followed closely by HTML/CSS.
- Python Programming has risen rapidly in the ranks of programming languages.
- Respondents show growing interest in Typescript language.
- SQL ranks fall but still hold a great number of interests.

Implications

- JavaScript and Python remain the most favored programming language (HTML/CSS and SQL not included because they are scripting languages, respectively)
- Because JavaScript and Python programming holds great performances in term of versatilities and scalabilities.
- This insight can help organizations and developers explore new technologies needed to build robust solutions, be highly efficient and gain maximum profits.

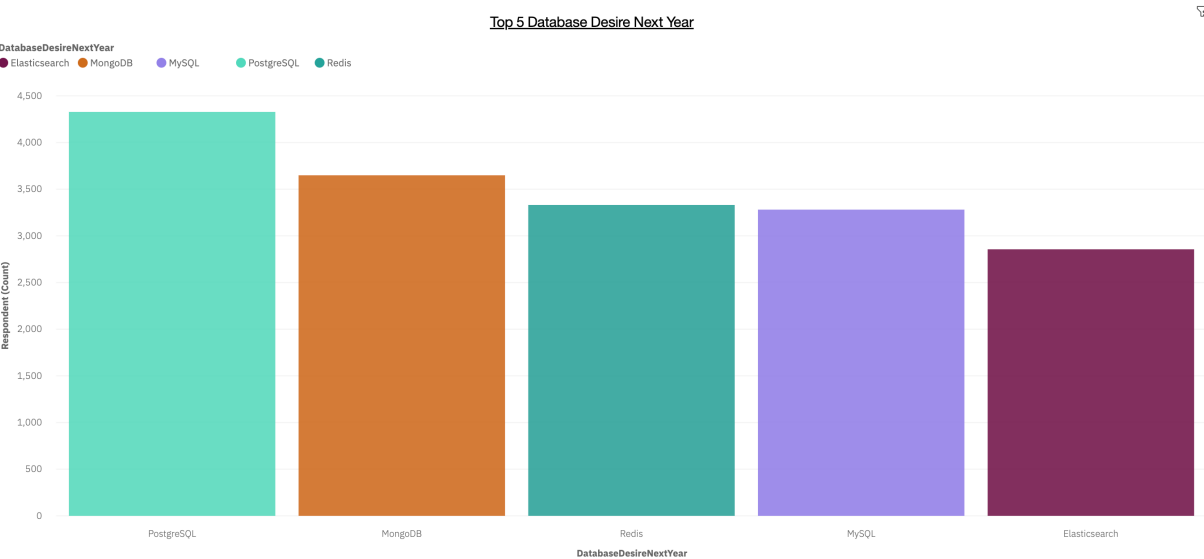
DATABASE TRENDS

Current Year



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Next Year



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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- In the current year, MySQL is the most popular used database.
- For the next year, PostgreSQL has taken the first spot and the interests in MongoDB and Redis are growing immensely.
- Interest in Microsoft SQL server has decreased in the subsequent year.

Implications

- The results demonstrate the most popular SQL and NoSQL databases used.
- Therefore, the database selection depends on the project's requirement and scalability needs.

DASHBOARD



<https://eu-de.dataplatform.cloud.ibm.com/dashboards/21881ce2-1bd5-4bd4-bc8e-7bfddc8fa919/view/5e64c616678c75e46dc2d0e407ca2a007c3f2454e4bbd10286847b4908697297a9604198c82d1e598c155160a7b8150dc8>

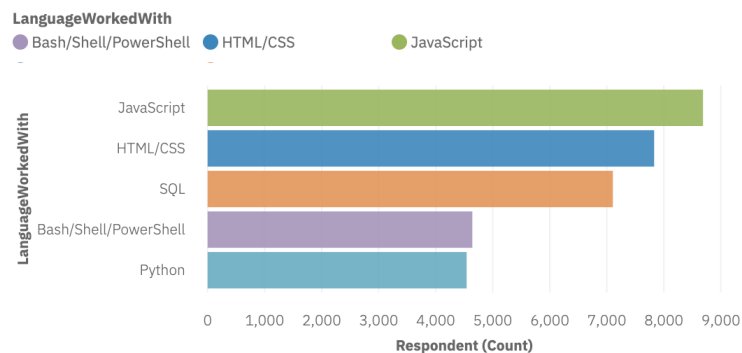
DASHBOARD TAB 1

Current Technologies Usage

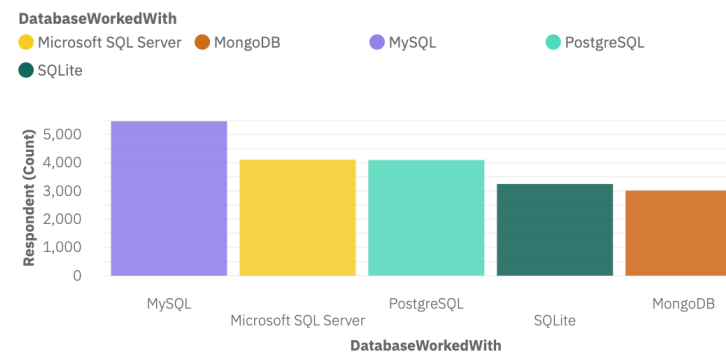
Future Technology Trend

Demographics

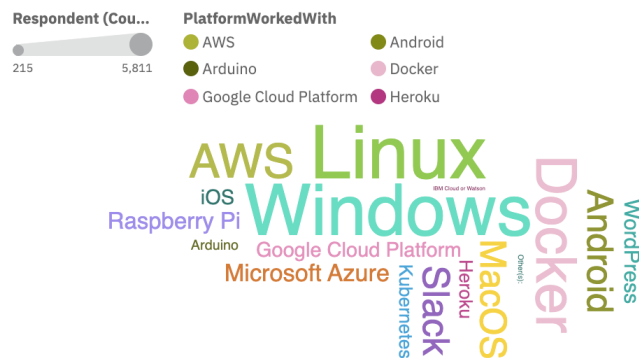
Top 5 Language Worked With



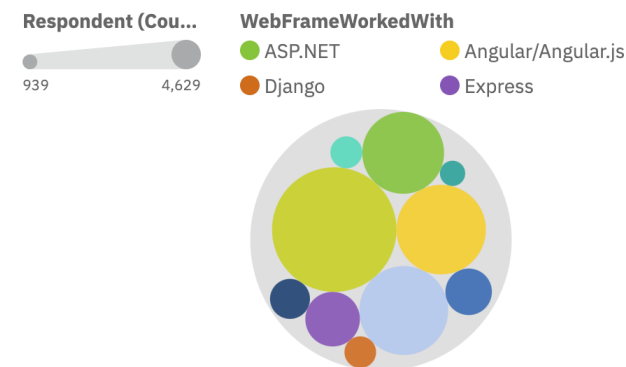
Top 5 Database Worked With



Platform Worked With



Top 10 Web Frame Worked With



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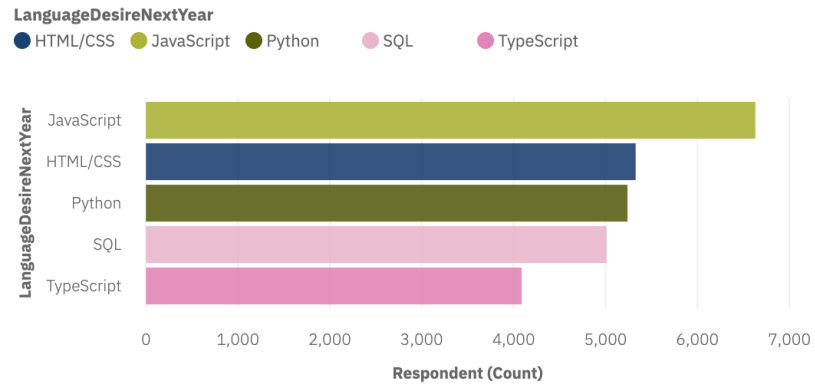
DASHBOARD TAB 2

Current Technologies Usage

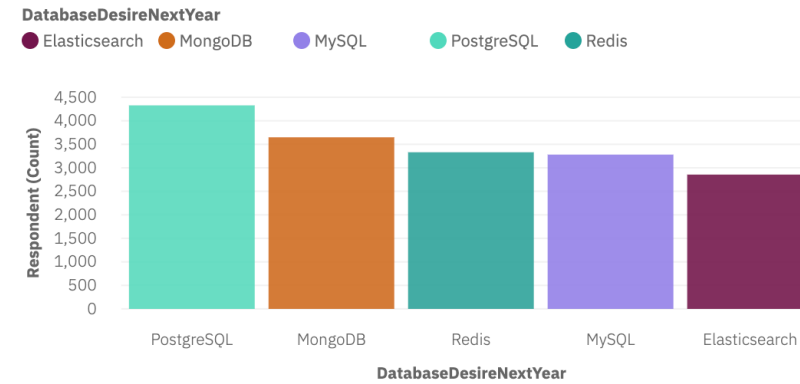
Future Technology Trend

Demographics

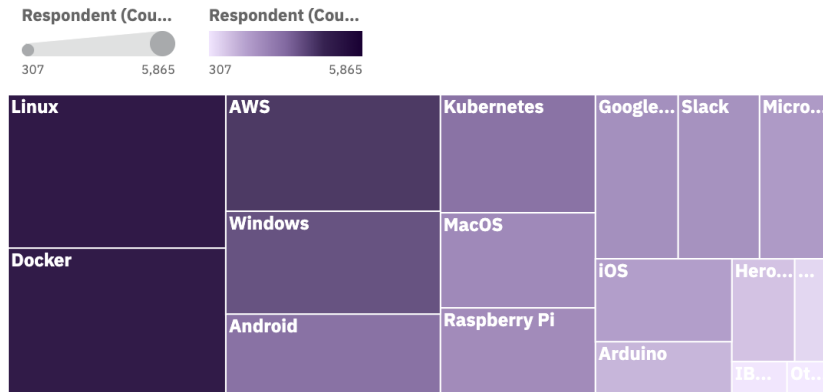
Top 5 Language Desire Next Year



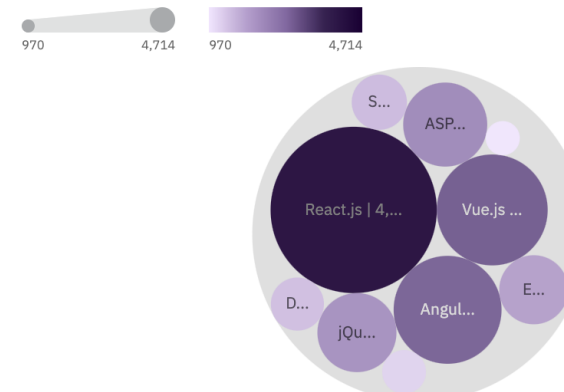
Top 5 Database Desire Next Year



Platform Desire Next Year



Top 10 Web Frame Desire Next Year



DASHBOARD TAB 3

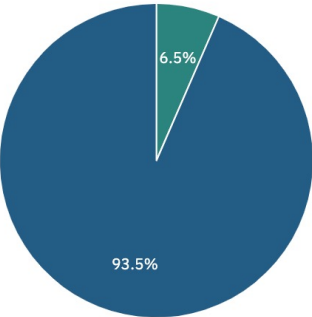
Current Technologies Usage

Future Technology Trend

Demographics

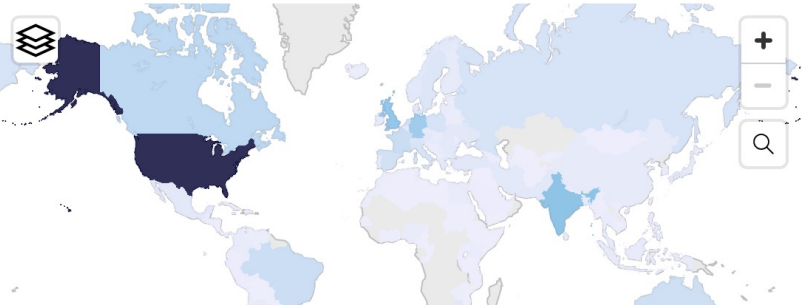
Respondent Classified by Gender

Gender
● Woman ● Man

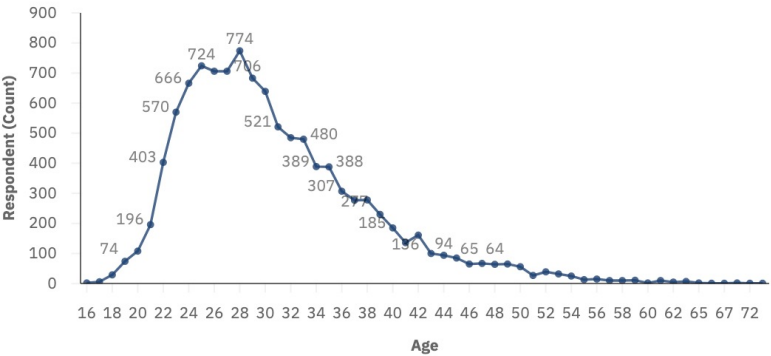


Respondent Count by Countries

Respondent (Cou...
1 3,058



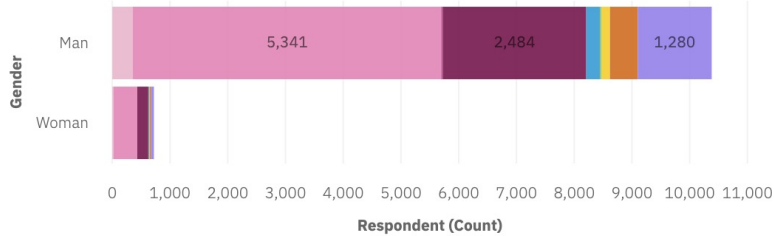
Respondent Count by Age



Respondent Count by Gender Classified by Education Level

EdLevel

● Associate degree ● Bachelor's degree (BA, BS, B.E...
● I never completed any formal ... ● Master's degree (MA, MS, M.E...
● Other doctoral degree (Ph.D, E... ● Primary/elementary school



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DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Python programming language is the fastest growing and records many developers eager to learn this skill. However, JavaScript remains in the utmost ranks in the current and next year.
- Web frameworks such React.js and Vue.js are the most popular while jQuery is the most dreaded.
- Most of respondents want to learn PostgreSQL and gained most interest in Next year's records.
- 93.5% of respondents are male.

Implications

- JavaScript and Python programming holds great performances in term of versatilities and scalabilities.
- Technology trends change every year.
- Developers and organizations should utilize future technologies to modify how the business operates.

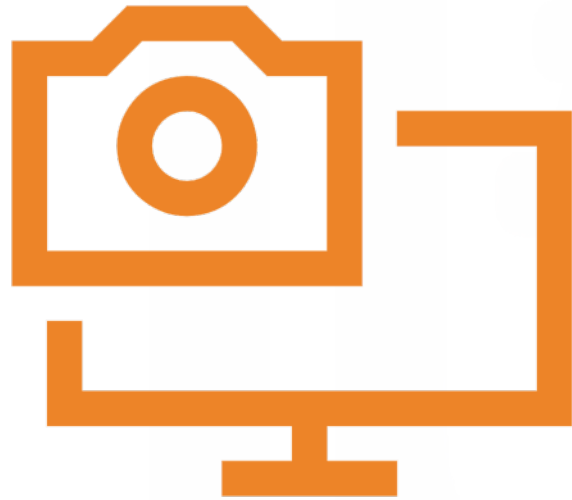
CONCLUSION



The developers and organizations should utilize future technologies to build robust solutions, be highly efficient and gain maximum profit.

Selection of technology depends on the project's requirement and scalability needs.

APPENDIX - RESOURCES



- <https://stackoverflow.blog/2019/04/09/the-2019-stack-overflow-developer-survey-results-are-in/>
- [m5 survey data demographics.csv](#)
- [m5 survey data technologies normalised.csv](#)