

# StackOverflow Developer Survey 2019

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# OUTLINE

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



# EXECUTIVE SUMMARY

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- Data contextualization and analysis objectives
- Methodology description
  - Data gathering
  - Data analysis
  - Data visualisations
- 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

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- 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.



# METHODOLOGY

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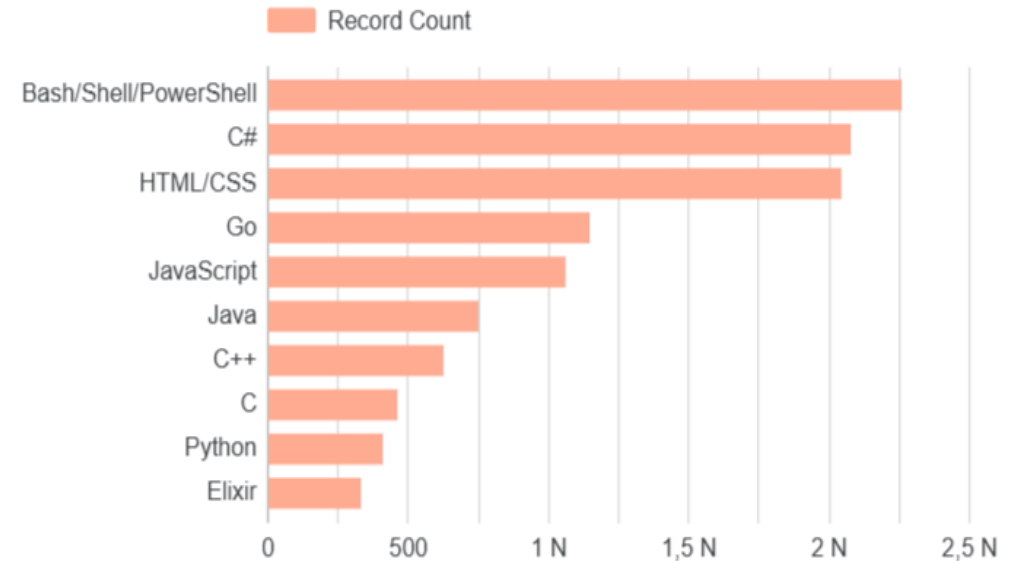
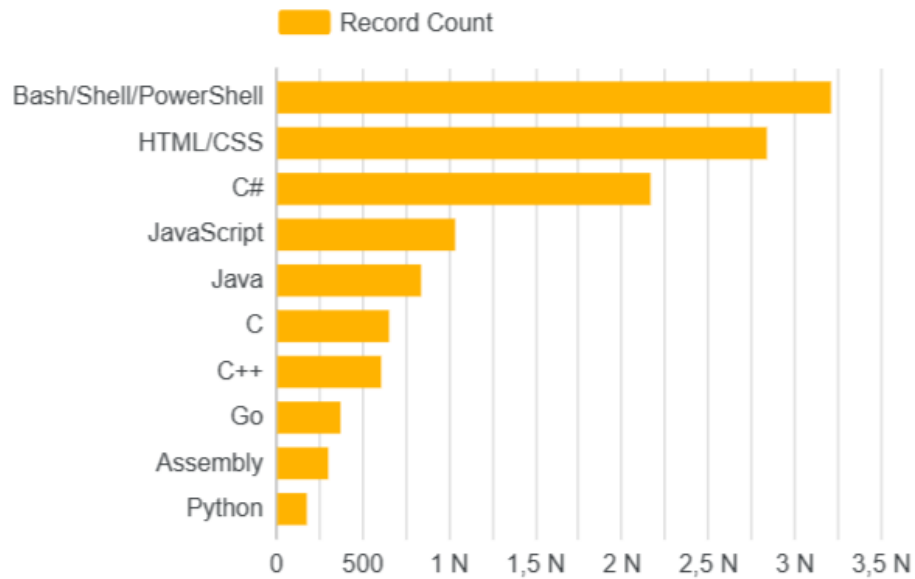
- Collect survey data & explore its content
  - Web Scraping
  - APIs.
  - Request library.
- Data Wrangling
- Exploratory data analysis
  - Analyzing data distribution.
  - Handling outliers.
  - Correlations.
- Data Visualization
  - Highlight distribution of data, relationships, the composition and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



# PROGRAMMING LANGUAGE TRENDS

Current Year

Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Bash/Powershell seems to be the most widely used language
- Followed by HTML/CSS
- Noticeably, Assembly is out of the predicted top most used language in next year

## Implications

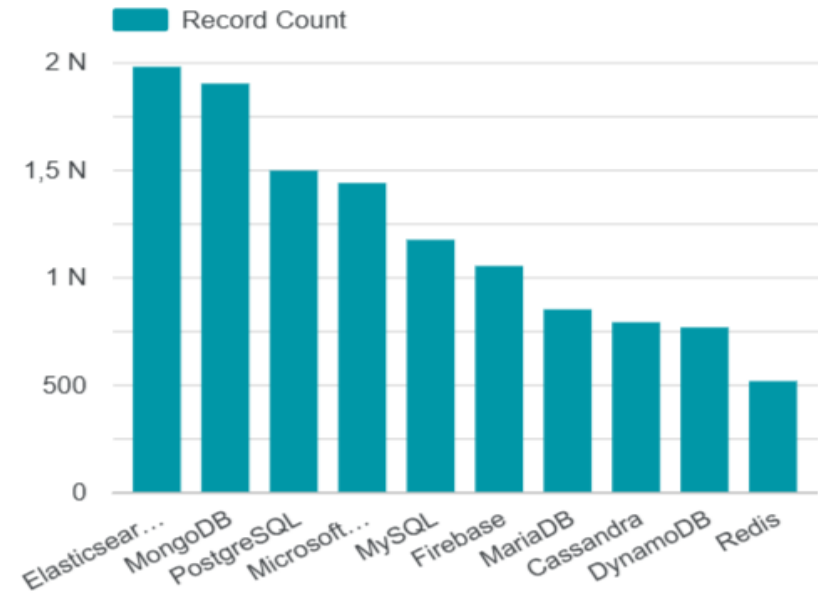
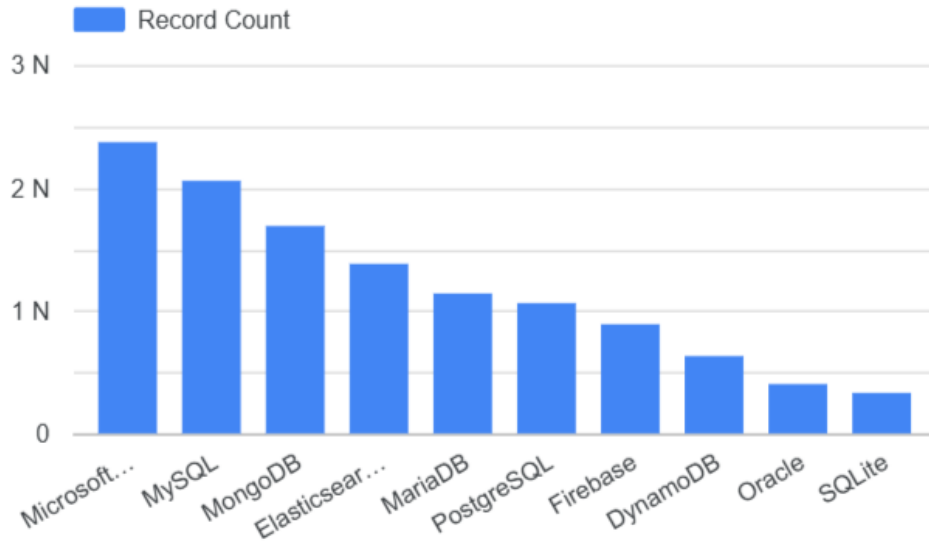
- Potential rise of languages used for web design and development.



# DATABASE TRENDS

Current Year

Next Year





# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Microsoft SQL Server was the most widely used in 2019
- Most of the database are SQL-based in 2019
- Unexpected rise of Elasticsearch amongst the SQL DB

## Implications

- Potential rise of a new competitor
- Microsoft SQL Server is losing its competitive edge to others.



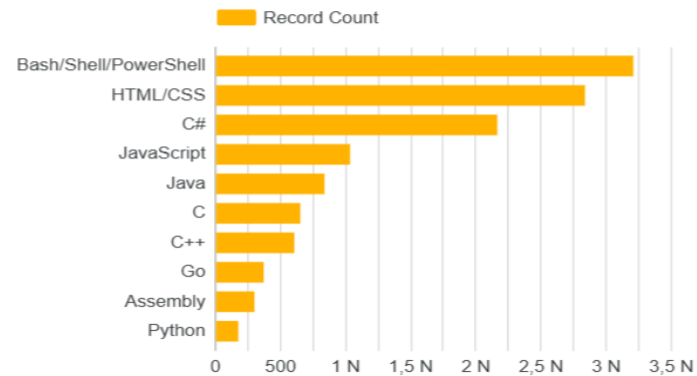
# DASHBOARD

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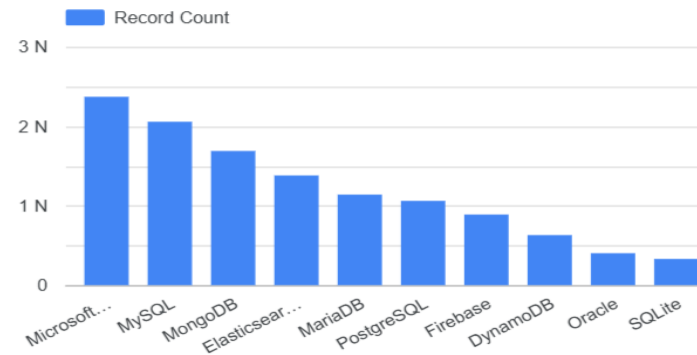


# Current Technology Trend

Top 10 Languages Used



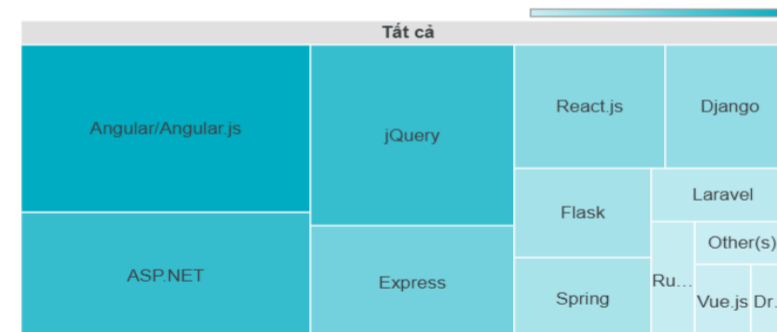
Top 10 Databases Used



Top 10 Platforms Used

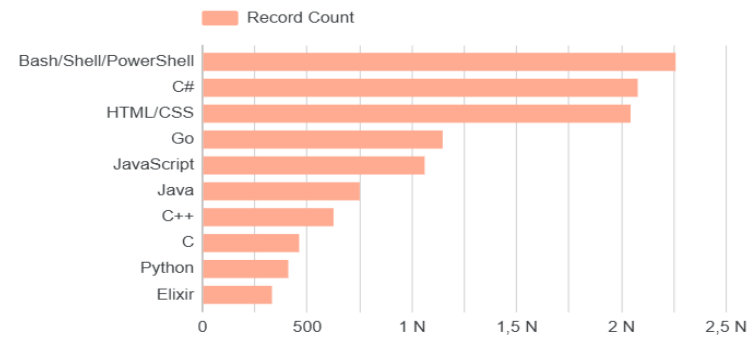


Top 10 Web Frameworks Used

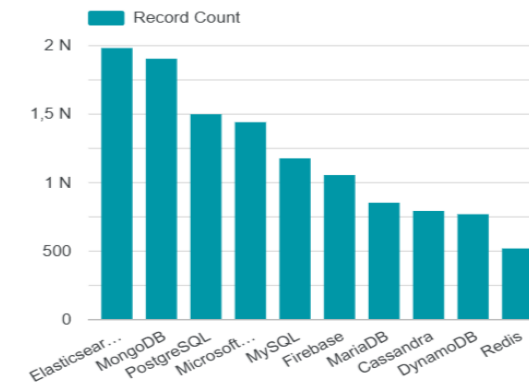


# Desired Technology Trend

Top 10 Desired Languages



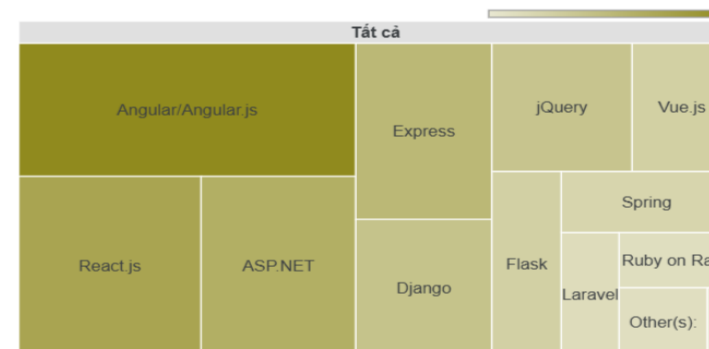
Top 10 Desired Databases



Top 10 Desired Platforms

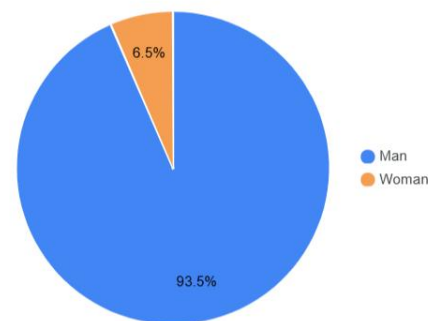


Top 10 Desired Web Frameworks

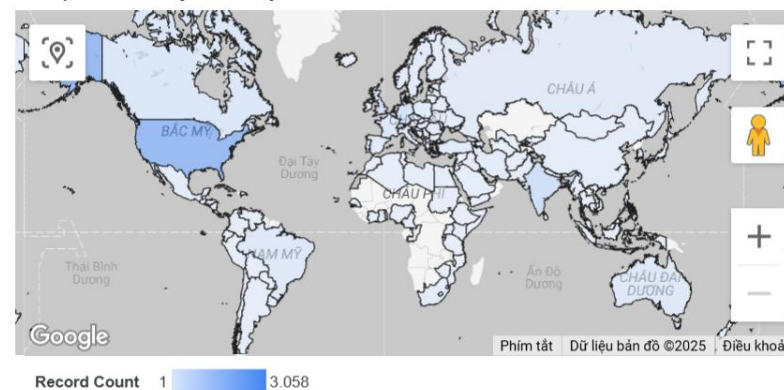


# DASHBOARD TAB 3

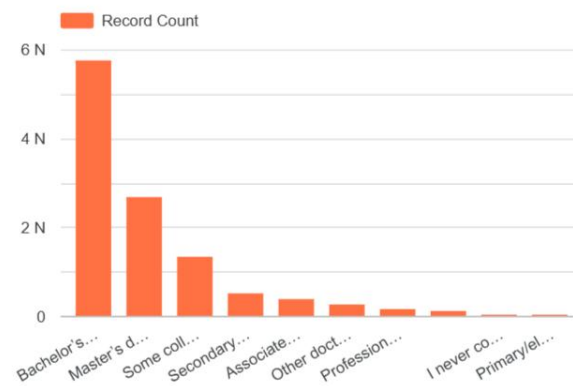
Respondents by Gender



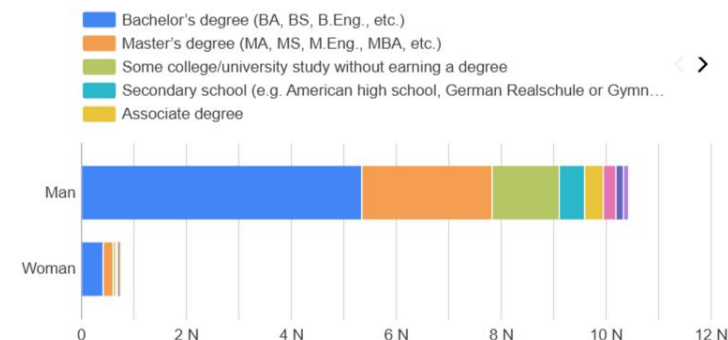
Respondents by Country



Education Level Distribution



Respondents by Age and Education Level



# DISCUSSION

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# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Some of the most widely used platforms are AWS, Docker, Android...
- More than 90% of the respondents are Male
- USA has the most number of respondents

## Implications

- AWS, Docker, Android are gaining popularity
- Major gap in IT as profession for both genders
- Most developers are from the USA, which is evident as StackOverflow itself was created in the country.



# CONCLUSION

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- The dashboard visualized the most important components of tech
- There are still some bias such as the large gender gap of respondents
- Overall, there is a need to spread accessibility of this labor market to countries in development.





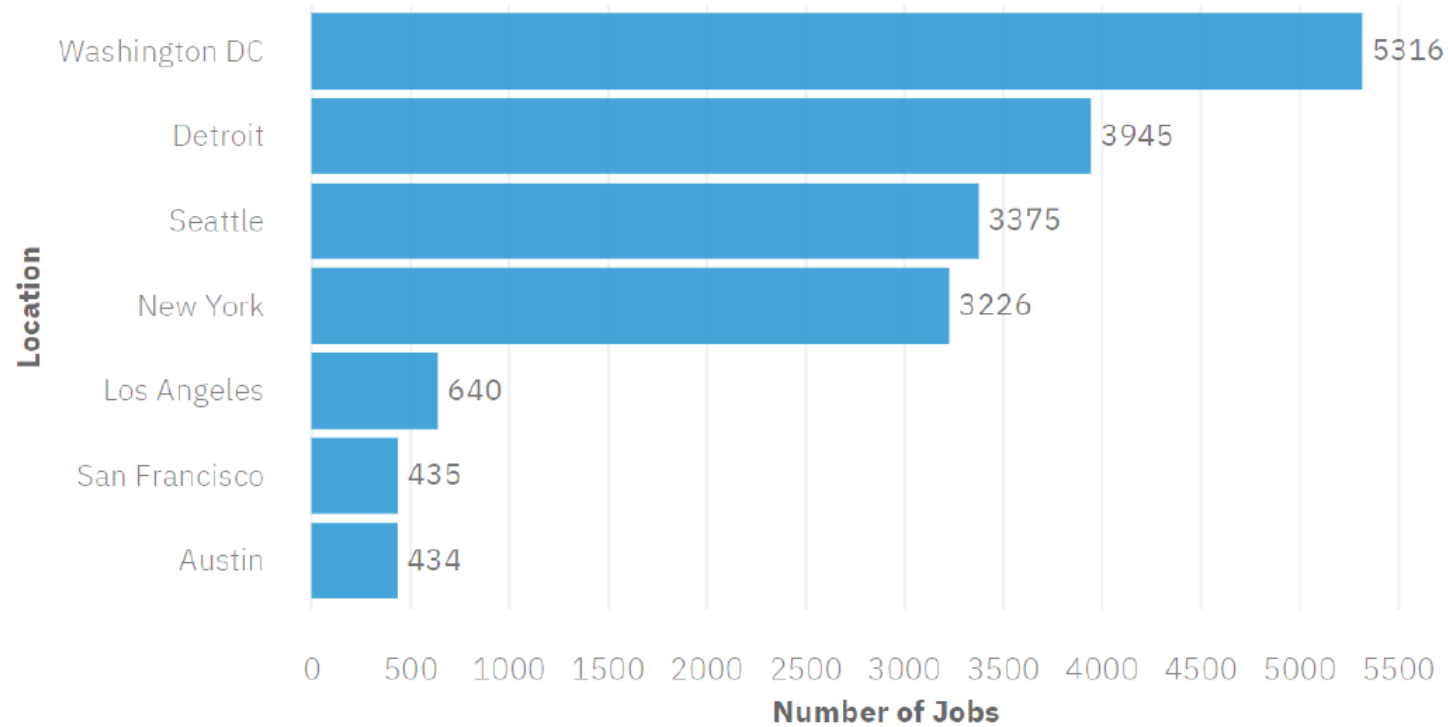
# APPENDIX

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# JOB POSTINGS

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# POPULAR LANGUAGES

