

# TECHNOLOGY FOR UPCOMING YEAR

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# ● **PRESENTATION OUTLINE**

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

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**01**

# **Executive Summary**

**01**

Programming  
Languages  
/Database  
systems actually  
in use

**03**

What Technology  
to adopt

**05**

Recommendations

**02**

Programming  
Languages  
/Database  
systems desired to  
learn next year

**04**

What Technology  
to avoid

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02

# Introduction

Based on the Developer Survey results for 2019. This report aims to help learners and startups to identify technologies that dominate in the future.

Report provides insight and answer questions:

1. What are programming languages and database system We should care about for next year?
2. What technology we should look at and invest in it?

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03

# Methodology

- Stack Overflow, a popular website for developers, conducted an online survey of software professionals across the world. The survey data was later open sourced by Stack Overflow. The actual data set has around 90,000 responses.
- The dataset we are going to use in this project comes from the following source:  
<https://stackoverflow.blog/2019/04/09/the-2019-stack-overflow-developer-survey-results-are-in/>  
under a ODbL: Open Database License.



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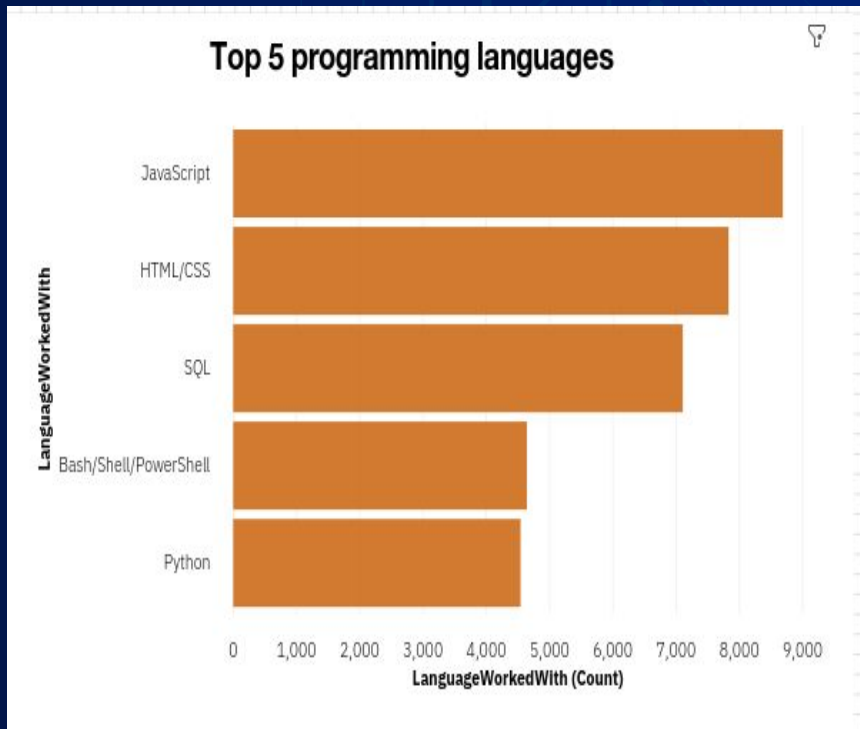
04

# Results

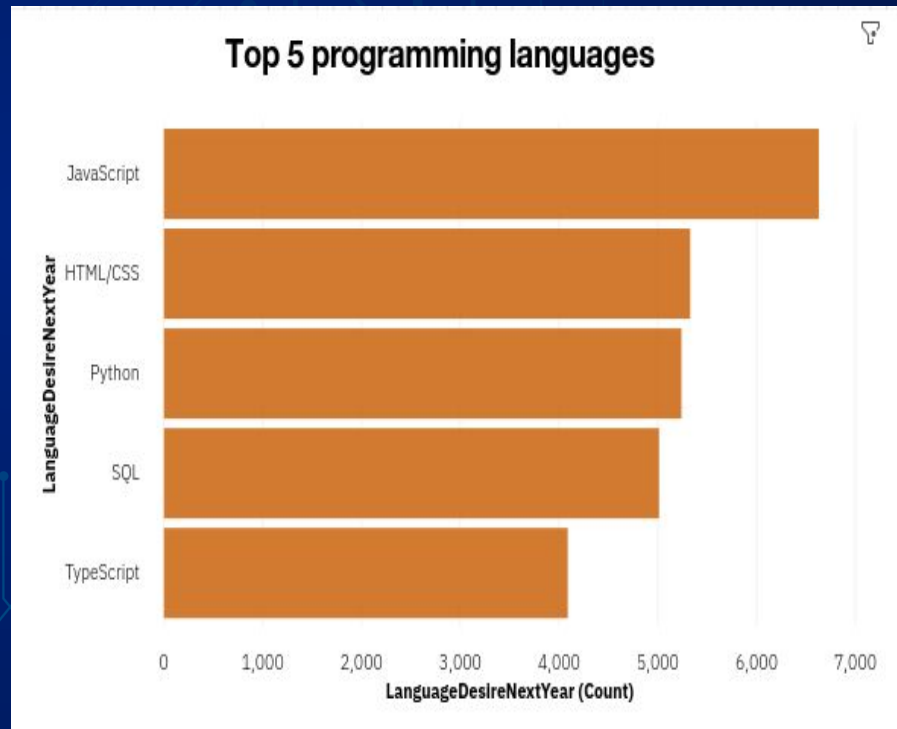
- JavaScript and HTML/CSS in the top 5 in two groups current and next year.
  - Python and SQL keep progress while as powershell out of top 5.
  - TypeScript, Go and Kotlin have high rate progress.
- 
- PostgreSQL and MongoDB in the top 5 for next year
  - Microsoft SQL Server and SQLite out of top 5.
  - Redis and ElasticSearch have high rate progress.

# PROGRAMMING LANGUAGE TRENDS

## Current Year



## Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings:

- JavaScript and HTML/CSS keep leading.
- PHP and VBA regression.
- Go, Kotlin and TypeScript with high progress rate.

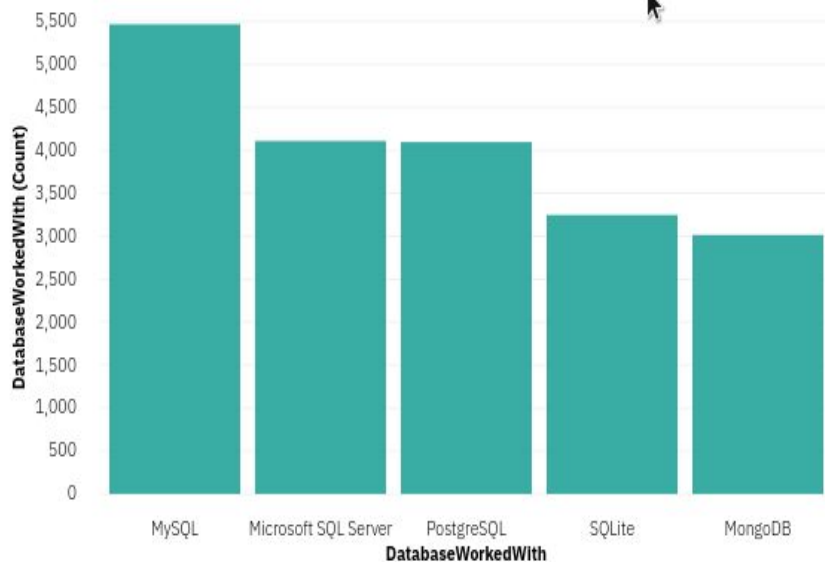
## Implications:

- Learn and invest in Web development.
- Stop investing in both.
- Although there are out of top 5 but should observe with attention.

# DATABASE TRENDS

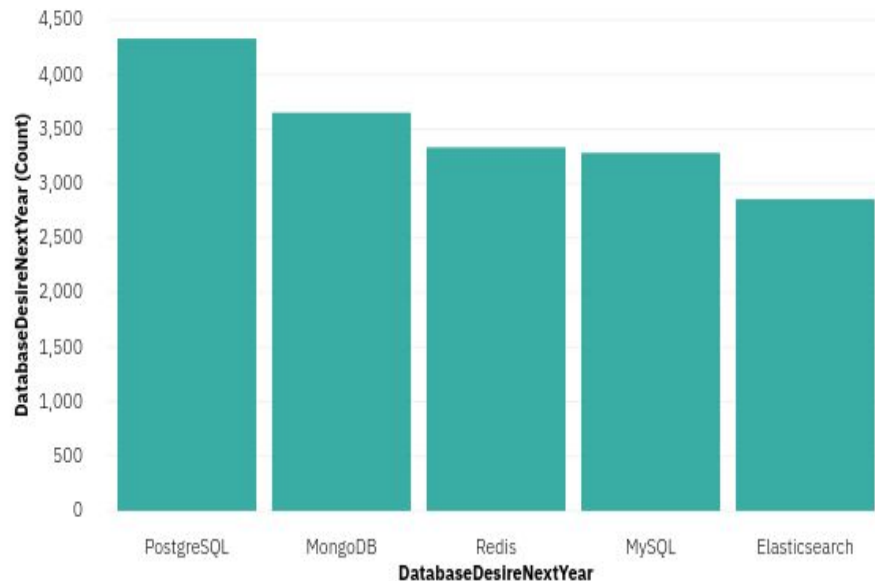
## Current Year

Top 5 Database Systems



## Next Year

Top 5 Database Systems



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings:

- PostgreSQL taking the lead, and MongoDB progressing higher.
- Oracle and SQLite moving back.
- Redis and ElasticSearch make progress.

## Implications:

- Learn and invest
- Stop investing in both.
- Observe with attention.

# DASHBOARD

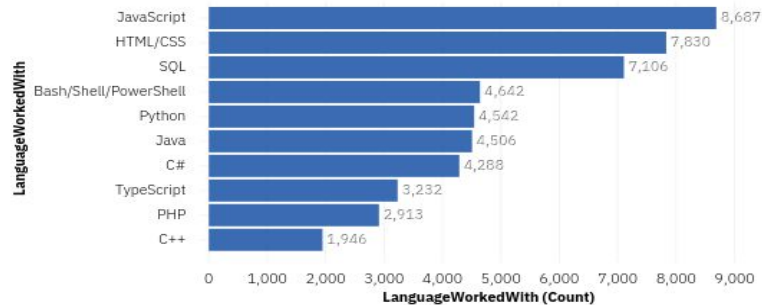
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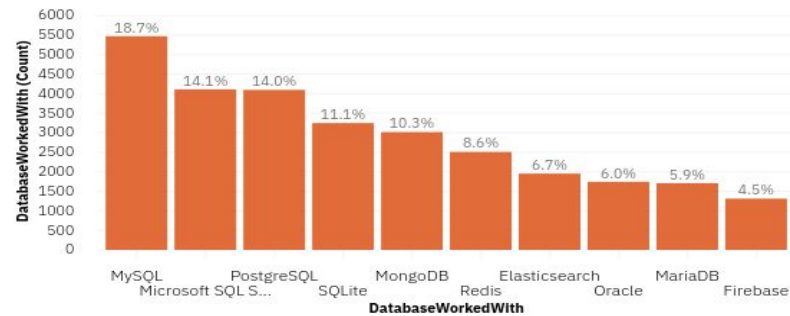
<https://eu-gb.dataplatform.cloud.ibm.com/dashboards/194412af-8f3e-4b60-be42-7341f15e5a49/view/5060dc20208f33d449cdf6e407ca2b507833240fb5bb820786d67b495b662297a8614698c82f485dd8105662a7e410599b>

# DASHBOARD TAB 1

## Top 10 LanguageWorkedWith



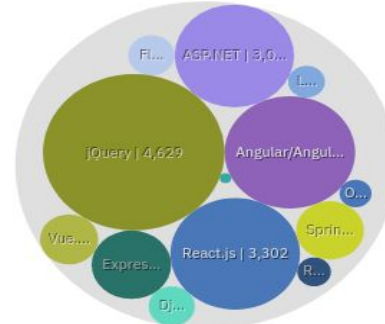
## Top 10 DatabaseWorkedWith



## PlatformWorkedWith



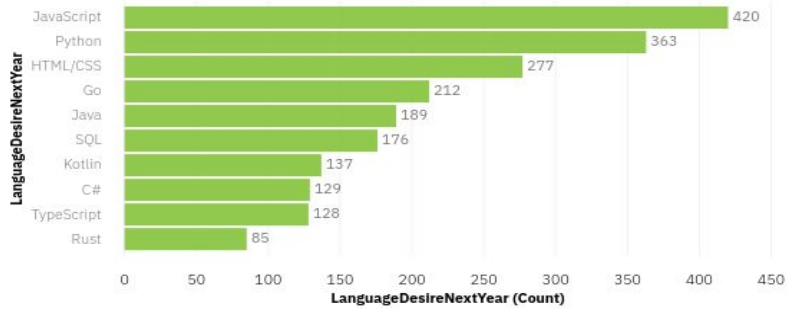
## Top 10 WebFrameWorkedWith



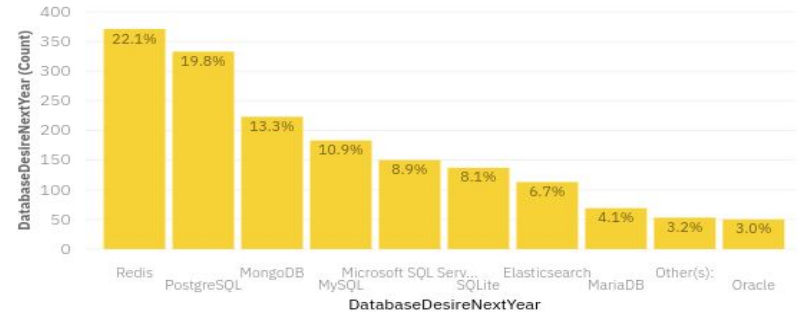


# DASHBOARD TAB 2

## Top 10 LanguageDesireNextYear



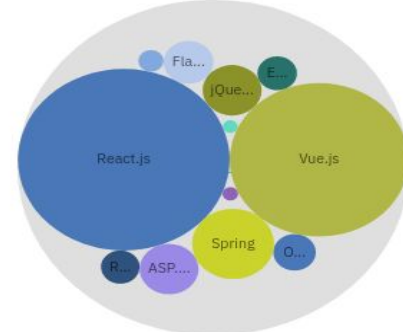
## Top 10 DatabaseDesireNextYear



## PlatformDesireNextYear



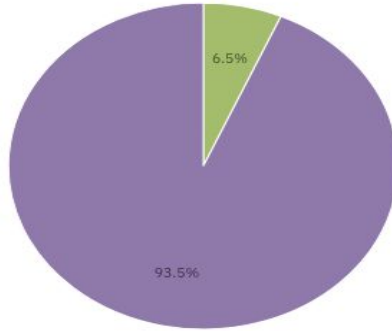
## Top 10 WebFrameDesireNextYear



# DASHBOARD TAB 3

## Respondent Count by Gender

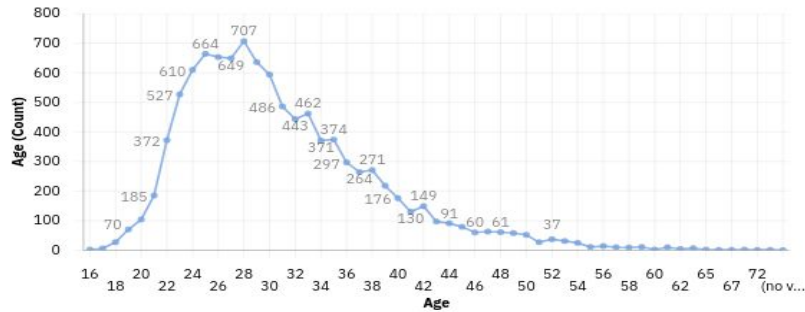
**Gender**  
● Woman  
● Man



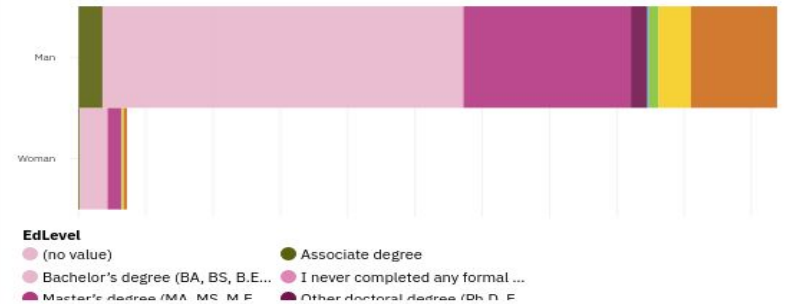
## Respondent Count for Countries



## Respondent Count by Age



## Respondent Count by Gender, classified by Formal Education Level



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## **DISCUSSION**

# OVERALL FINDINGS & IMPLICATIONS

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## Findings:

- Technologies which have high progress rate or still leading.
- Technologies which go out from top 5 trend or out of top 10.
- Technologies which come new in top 5 trend or top 10.

## Implications:

- Learn, develop and invest
- Stop investing time and money.
- Observing with attention.

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06

**conclusion**

# CONCLUSION

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Based on the Developer Survey results for 2019.

- For Programming Language, JavaScript and Python are dominant but should keep eye on Go, Kotlin and TypeScript.
- For Database systems, Postgresql and MongoDB will be the most dominant next year.
- In the other hand, PHP is regression against Python and Javascript and must be left even by developers and enterprises.
- Also VBA is losing the market due to the Python language and its different libraries.



## APPENDIX

# APPENDIX

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## STACK OVERFLOW SURVEY:

[HTTPS://INSIGHTS.STACKOVERFLOW.COM/SURVEY/2019](https://insights.stackoverflow.com/survey/2019)



# GITHUB JOB POSTINGS

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**JOB POSTINGS API HAS BEEN DEPRECATED AND NO LONGER EXISTS**

# POPULAR LANGUAGES

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Relationship between Language and annual average salary

