



# Future Tech Review

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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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- Web-based programming language like JavaScript and HTML are still popular.
- React.js and jQuery are the most popular Web Framework.
- Windows and Linux still the dominant OS
- For mobile platform, Android wins by far
- Although MySQL is still the most used database, MongoDB and PostgreSQL show increasing trend.

# INTRODUCTION

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- The technology market changes quickly every year.
- It is important to catch-up with the latest technology in each field.
- The comparison between current & next year technology trend will provide great insight into the market.
- The study consist of 4 main parts:
  - Top Programming Language Used
  - Top RDBMS Language Used
  - Top Web Platform Used
  - Top Web Frame Used

# METHODOLOGY

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- The technology trend is studied by comparing current and future technology usage.
- The Data was from the 'Stack Overflow Developer Survey 2019'.
- Different type of charts, such as bar, line, pie, tree-map ... will be used to visualize the result.
- The IBM Cognos Embedded Dashboard is used for Data Visualization

# RESULTS

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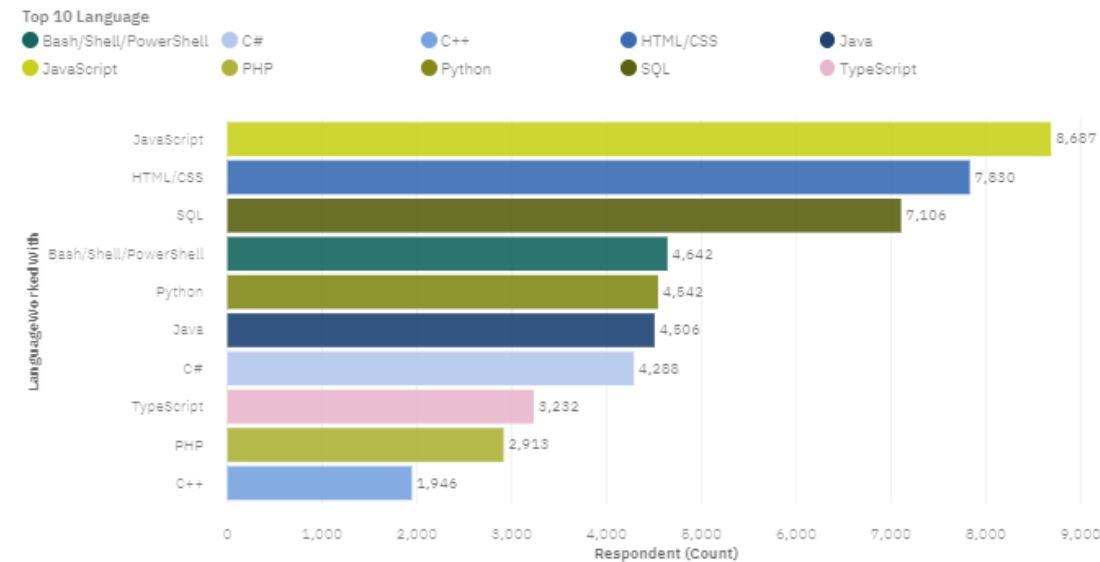
- The results consists of 4 main parts:
  - Programming language trend
  - Database trend
  - Platform trend
  - Web frame trend



# PROGRAMMING LANGUAGE TRENDS

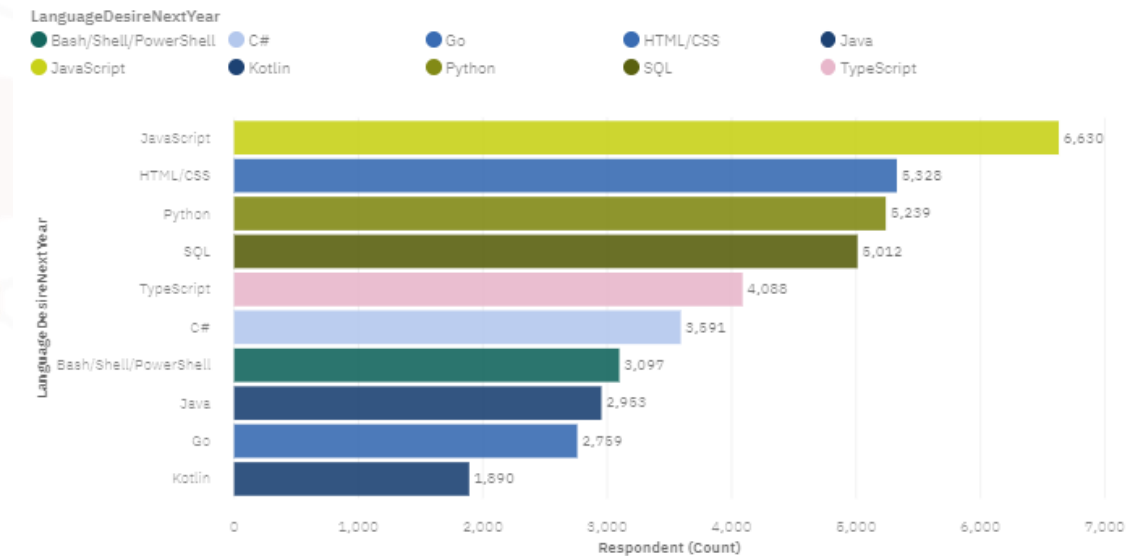
## Current Year

Top 10 Language Worked With



## Next Year

Top 10 Language Desire Next Year



# PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- JavaScript & HTML/CSS are top programming languages for both current and future trend.
- Python moves from 5<sup>th</sup> position to 3<sup>rd</sup> position in top 10.
- C++ and PHP are disappearing from top 10.

## Implications

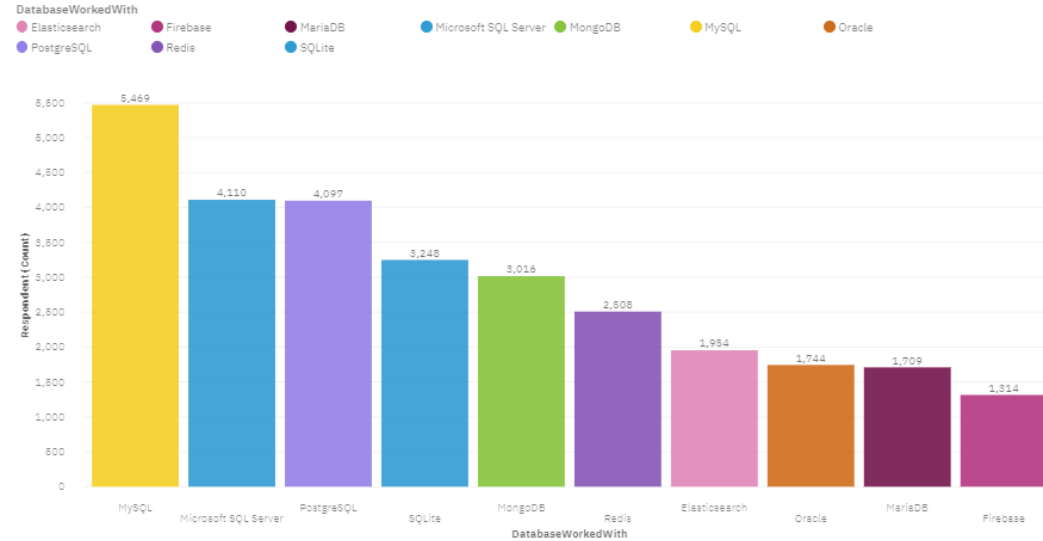
- Web programming languages is still popular
- Python for data science is becoming more and more important.
- Legacy language such as C++, PHP are gradually falling out of interest.



# DATABASE TRENDS

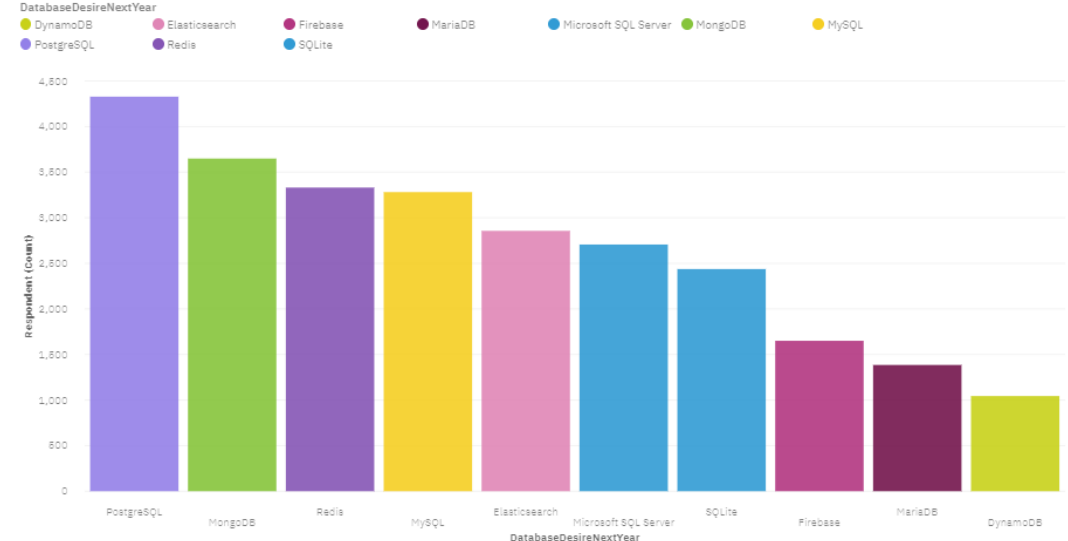
## Current Year

Top 10 Database Worked With



## Next Year

Top 10 Database Desire Next Year



# DATABASE TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- MongoDB & Redis quickly moves up to No.2 and No.3
- PostgreSQL moves from No.3 to No.1
- MS SQL server drops from No.2 to No.5
- Oracle disappear from top

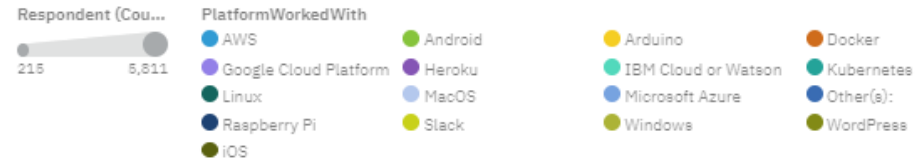
## Implications

- Open source database becomes more and more popular compared with commercial one.
- Non-relational database see increasingly usage in the future.
- Relational database still takes a leading position in the near future.

# PLATFORM TRENDS

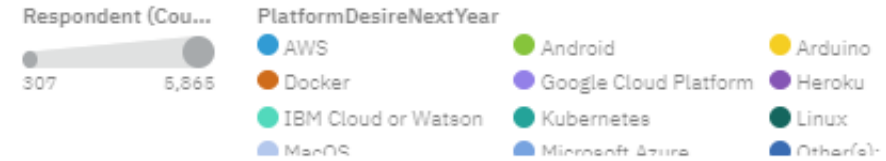
## Current Year

### Platform Worked With



## Next Year

### Platform Desire Next Year



# PLATFORM TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- Windows and Linux still dominates the platform trend.
- Android is No.1 in mobile platform.
- Cloud platform such as Kubernetes, Docker, AWS is getting more and more market share.

## Implications

- Windows and Linux are still main developing platform in a foreseeable future.
- The transformation to cloud computing is a non-reversible process.

# WEB FRAME TRENDS

## Current Year

### Top 10 Web Frame Worked With

Respondent (Cou...  
939 4,629  
WebFrameWorkedWith



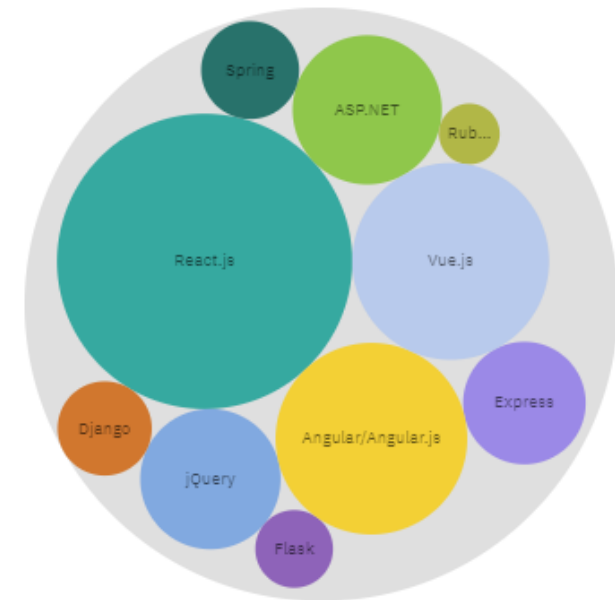
## Next Year

### Top 10 Web Frame Desire Next Year

Respondent (Cou...  
970 4,714  
WebFrameDesireNextYear

Legend:

- ASP.NET
- Angular/Angular.js
- Django
- Express
- Flask
- Ruby on Rails
- Spring
- Vue.js
- jQuery



# WEB FRAME TRENDS – FINDINGS & IMPLICATIONS

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## Findings

- jQuery decreases from No.1 to No.4.
- React.js moves up from No.3 to No.1
- Vue.js moves from No.9 to No.3.
- Angular.js stays at same position.

## Implications

- jQuery quickly loses market share show lack of interest in its future development.
- React.js and Vue.js becomes the new standard for web frame development.

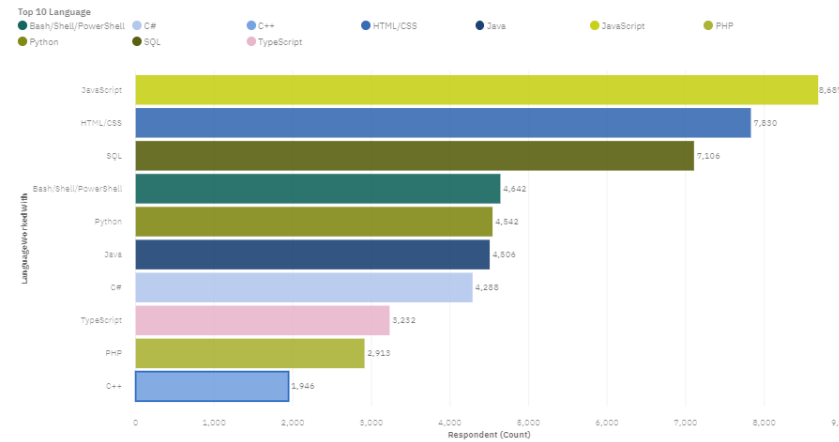
# DASHBOARD

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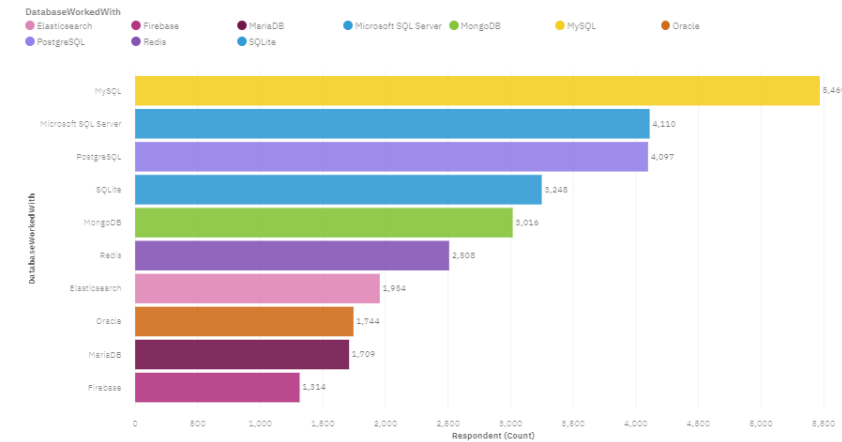
Download the Final Cognos Embedded Dashboard [here](#)

# DASHBOARD TAB 1

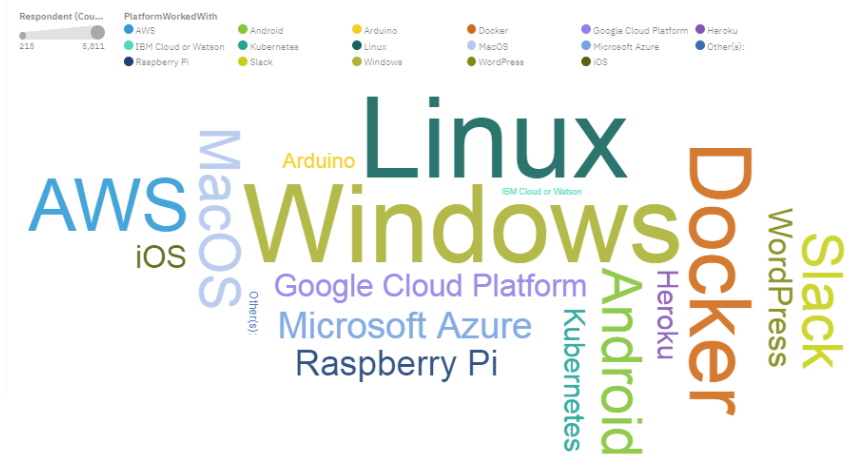
Top 10 Language Worked With



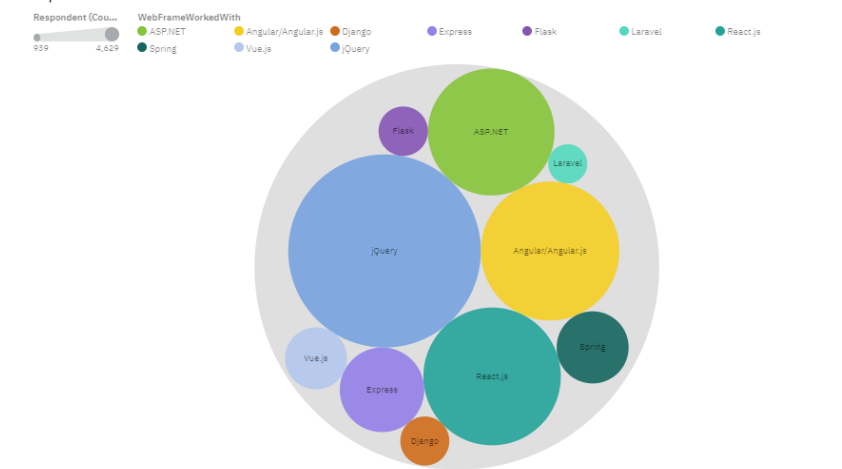
Top 10 Database Worked With



Platform Worked With



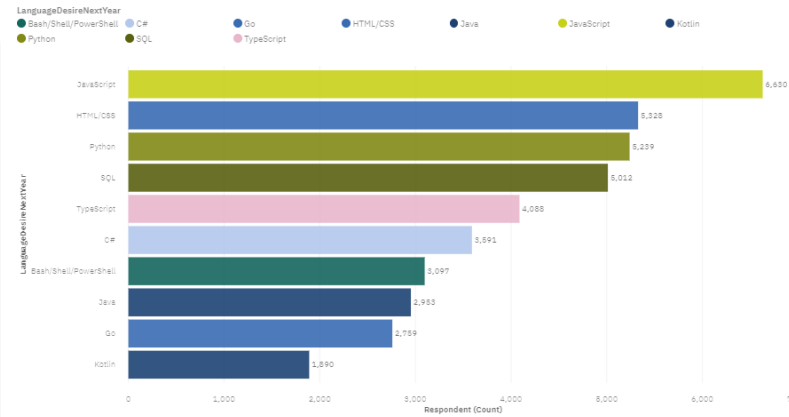
Top 10 Web Frame Worked With



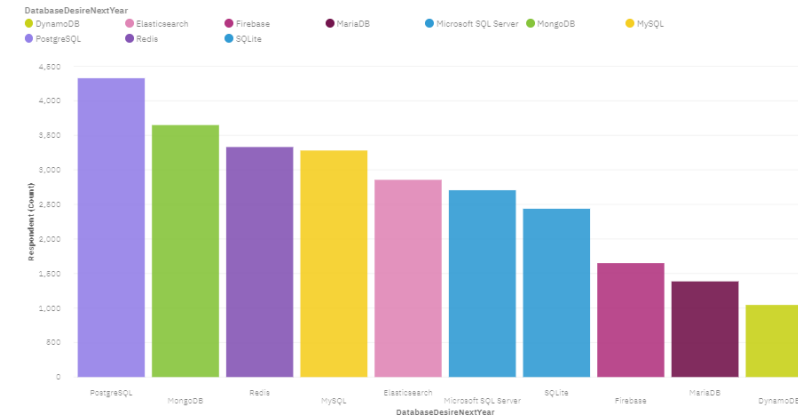


# DASHBOARD TAB 2

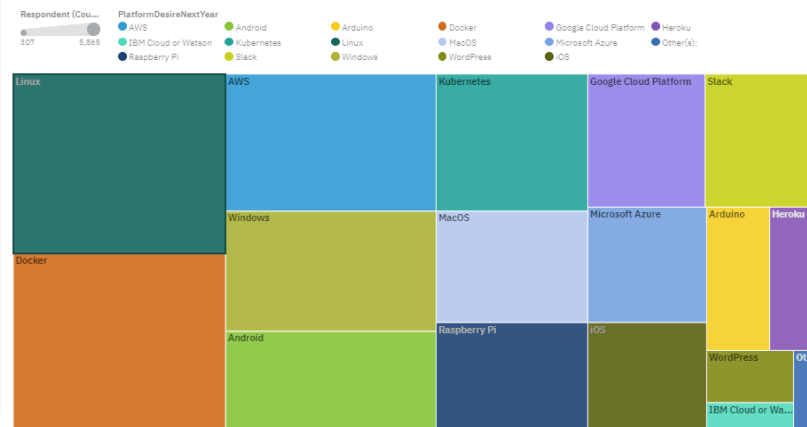
Top 10 Language Desire Next Year



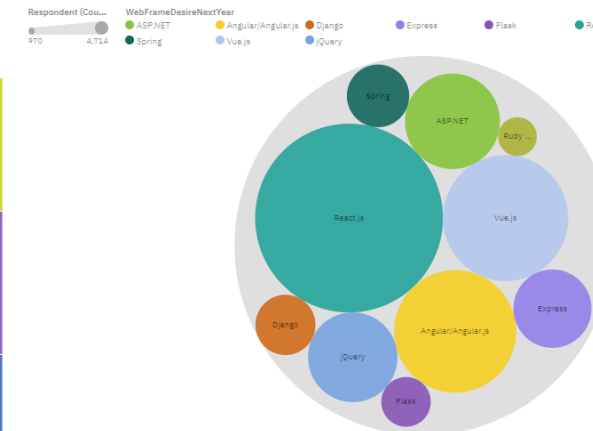
Top 10 Database Desire Next Year



Platform Desire Next Year



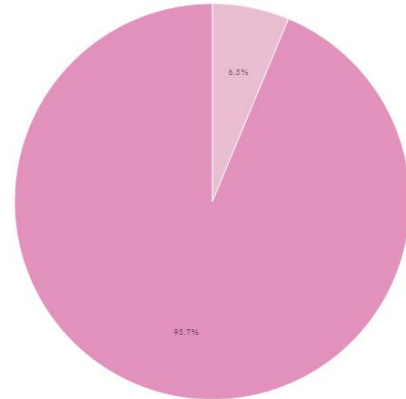
Top 10 Web Frame Desire Next Year



# DASHBOARD TAB 3

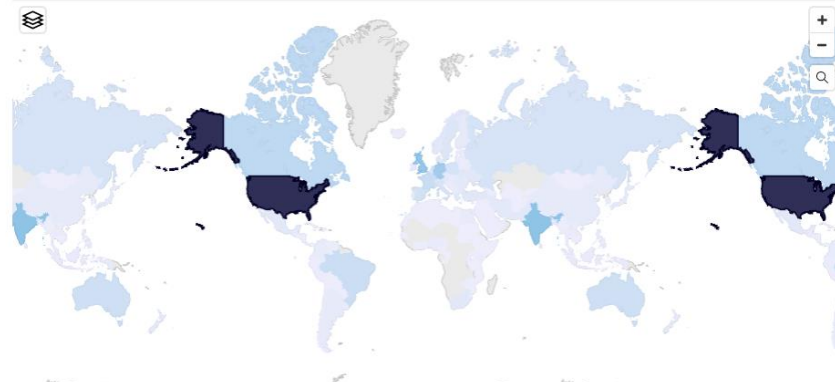
Respondent Classified by Gender

Gender  
Woman Man

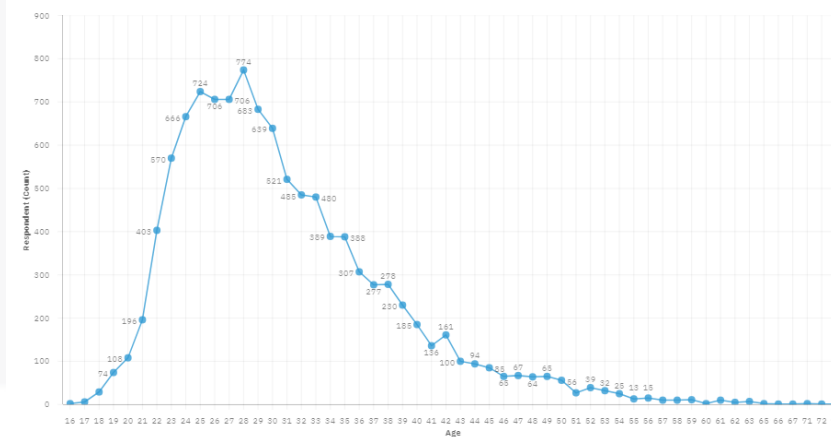


Respondent Count for Countries

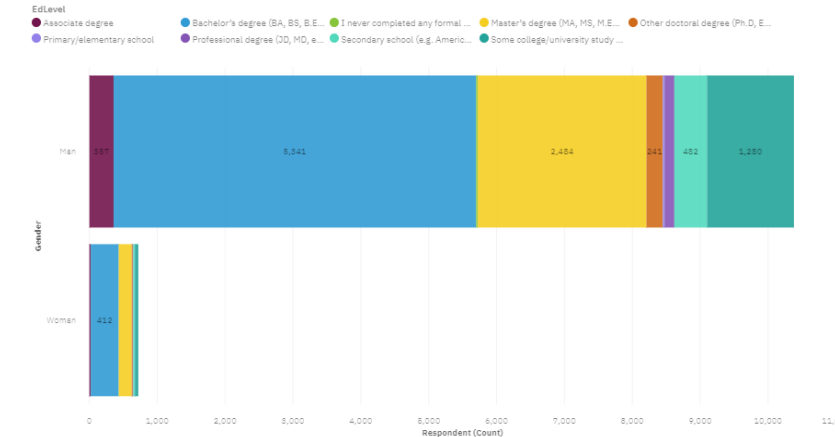
Respondent (Cou...  
1 3,058



Respondent Count by Age



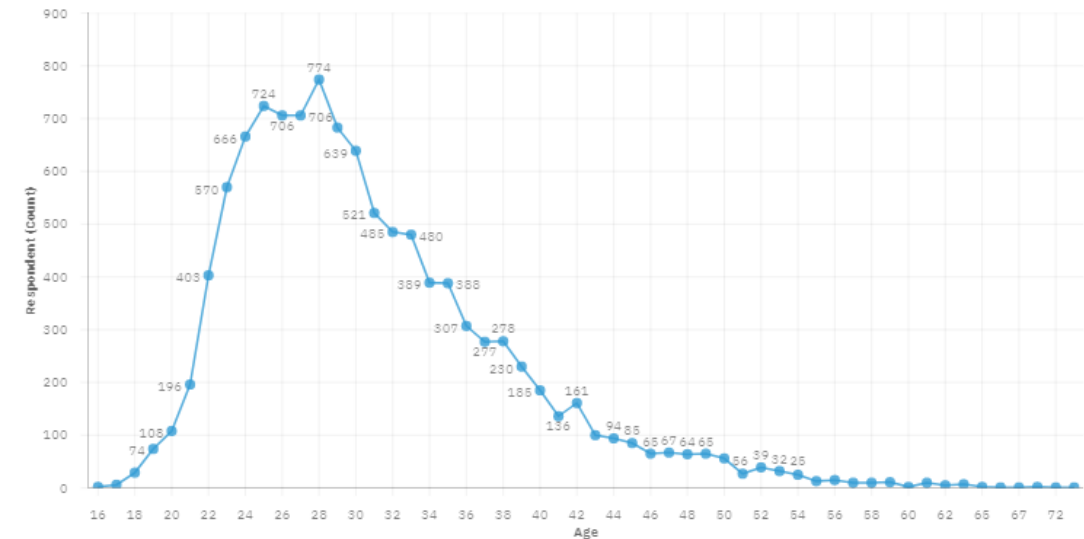
Respondent Count by Gender, classified by Ed Level



# DISCUSSION



Respondent Count by Age



- Majority of respondents are at young age (20, 30s)
- This biased age data could skew the result in favor of new technology.

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Web based language stays at No.1
- Non-relational database moves to No.2 & No.3
- Cloud-based platform moves to No.1
- React.js stays at No.1 on web framework.

## Implications

- Web based application is taking over the traditional application.
- Non-relational database sees increasing adoption.
- Cloud-based services become top-choice for platform development.

# CONCLUSION

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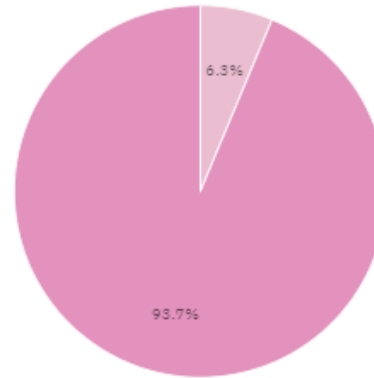
- To stay relevant in the technology field, it's important to learn web-based language & non-relational database.
- Among web framework, React.js is the best to learn for your future.
- Cloud-based service is the right direction for IT investment.

# APPENDIX



Respondent Classified by Gender

Gender  
● Woman ● Man

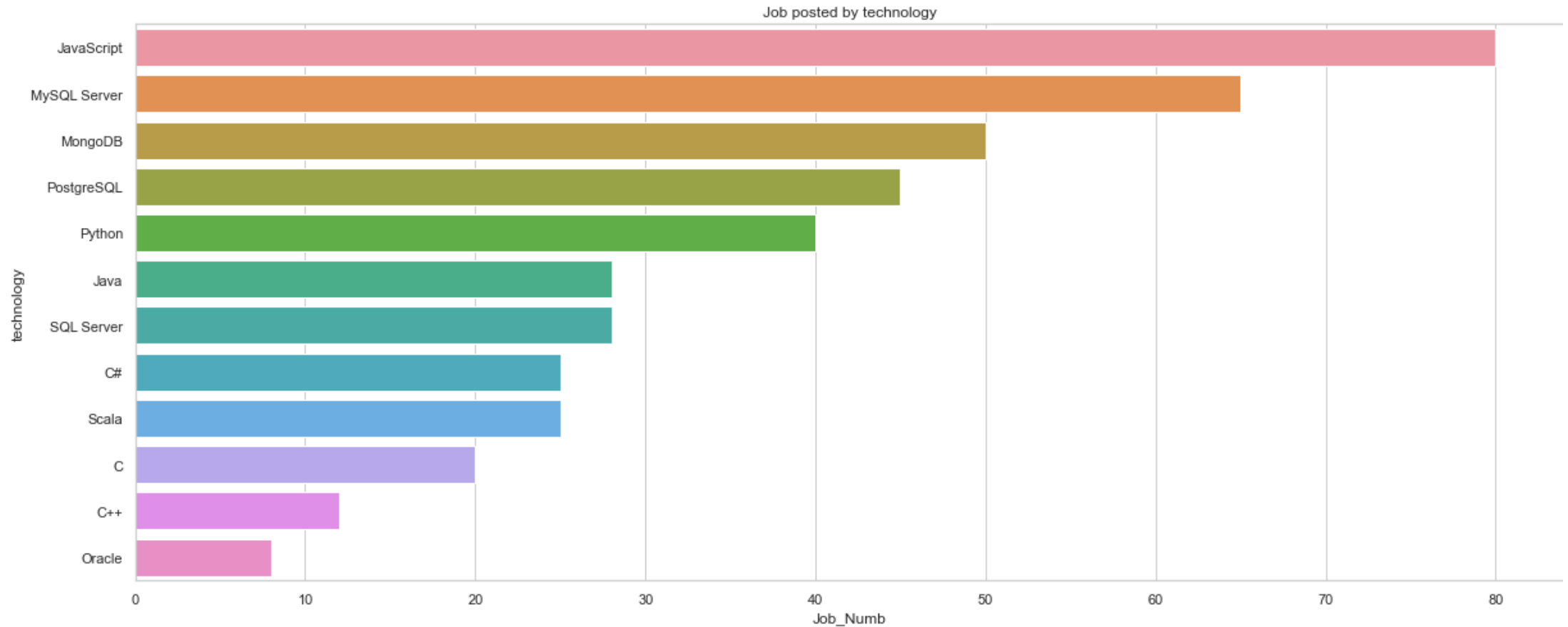


Respondent Count for Countries

Respondent (Cou...  
1 3,058



# GITHUB JOB POSTINGS



# POPULAR LANGUAGES

