



# STACK OVERFLOW SURVEY

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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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- Skill required in the IT field keeps on changing and evolving
- Different people try to learn other technologies or skills according to the market demand
- It is very important to have knowledge of the market trends so that the one can prepare themselves
- The purpose of this presentation is to have a brief overview of the current and future trends for different tech stacks

# INTRODUCTION

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- This Presentation will help all the stakeholders of IT, so that they can make decisions accordingly
- All stakeholders analyze the current trends and make decision according to the future trends

# METHODOLOGY

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- Collected the Data using API and Exploring the Data
- The data was wrangled/cleaned (removed duplicate, imputed missing values & normalized the data)
- The data then Analyzed (Exploratory Data Analysis) to find the distribution of data, presence of outliers and determine the correlation between different columns in the dataset
- Data is then visualize using different charts and graphs
- Then two modified subset of Stack Overflow Dataset are downloaded and three dashboard are created on Cognos Dashboard Embedded

# RESULTS

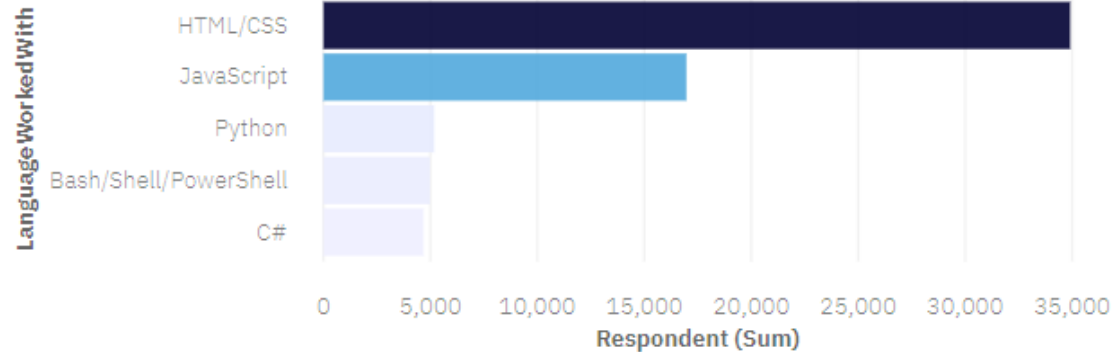
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# PROGRAMMING LANGUAGE TRENDS

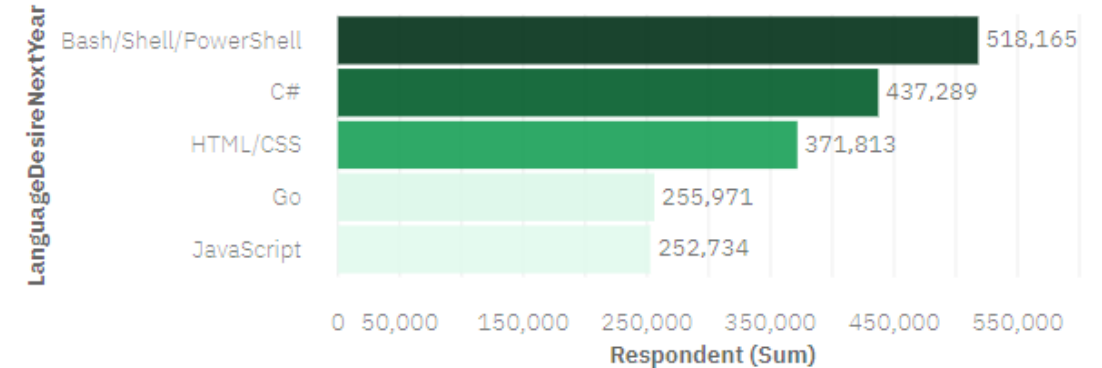
Current Year

Respondent (Sum)



Next Year

Respondent (Sum)



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- HTML/CSS/JAVASCRIPT has decreased
- Bash/Shell/PowerShell become top for next year
- C# gained more interest for next year

## Implications

- Employ more people skilled in C# & Bash
- Employ moderate people skilled in HTML/CSS
- Employ less people skilled in Python and JavaScript



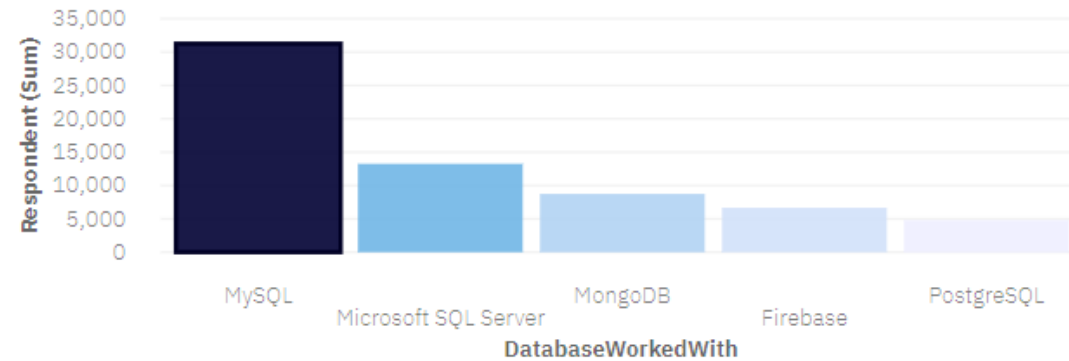
# DATABASE TRENDS

Current Year

Respondent (Sum)



4,782 31,259

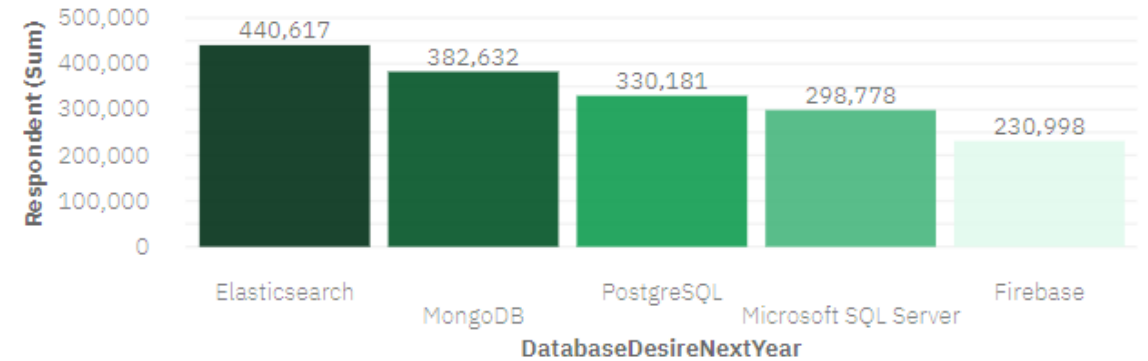


Next Year

Respondent (Sum)



230,998 440,617



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL failed to get position in top 5 for the next year and Elastic search hot first position
- MySQL server loses interest and MongoDB & PostgreSQL gained interest for the next year
- Firebase almost loses some interest for the next year

## Implications

- Stop Employing people with MySQL skill instead start employing Elasticsearch skilled people
- Employ people skilled in MongoDB and PostgreSQL

# DASHBOARD

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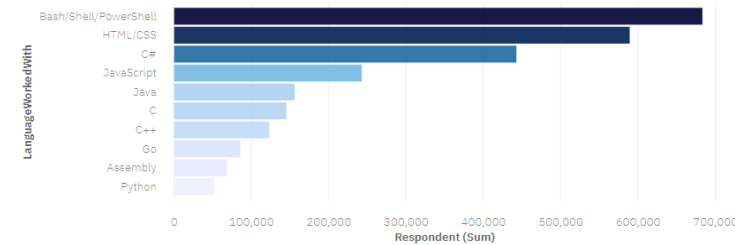
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# DASHBOARD TAB 1

Current Technology Usage Future Technology Trend Demographics

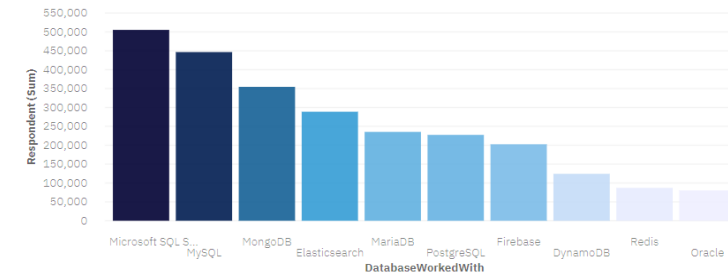
Top 10 LanguageWorkedWith

Respondent (Sum)  
51,375 683,190



Top 10 DatabaseWorkedWith

Respondent (Sum)  
80,192 305,383



PlatformWorkedWith

Respondent (Sum) Respondent (Sum)  
12,409 509,164 12,409 509,164



Top 10 WebFrameWorkedWith

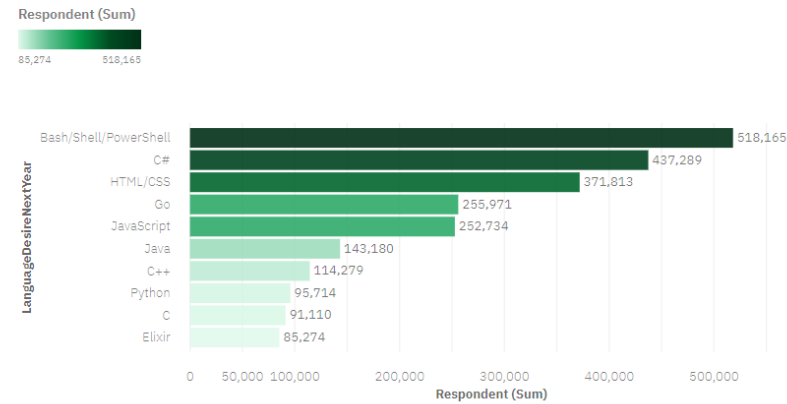
Respondent (Sum) Respondent (Sum)  
77,407 578,238 77,407 578,238



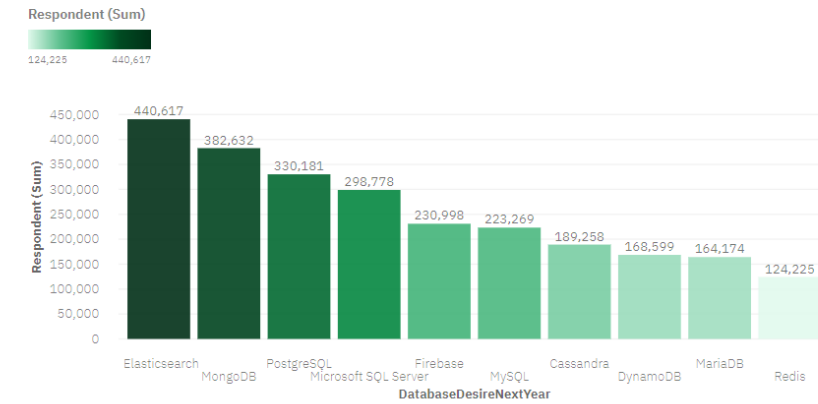
# DASHBOARD TAB 2

Current Technology Usage   **Future Technology Trend**   Demographics   +

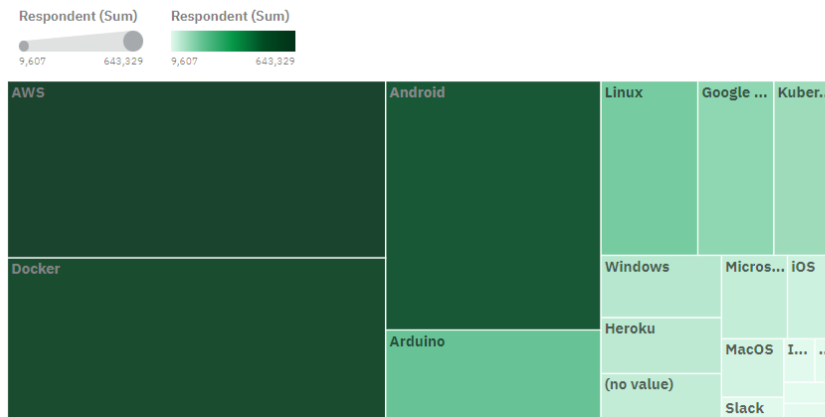
### Top 10 LanguageDesireNextYear



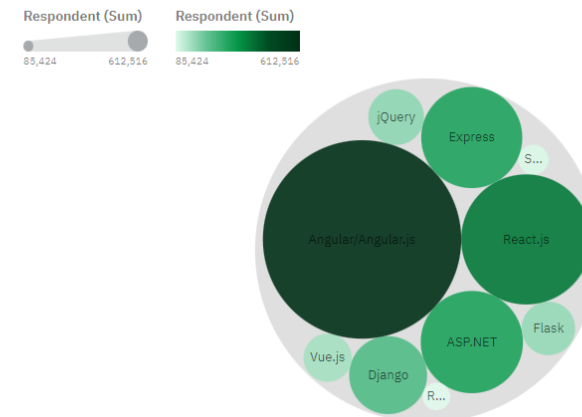
### Top 10 DatabaseDesireNextYear



### PlatformDesireNextYear



### Top 10 WebFrameDesireNextYear



# DASHBOARD TAB 3

Current Technology Usage

Future Technology Trend

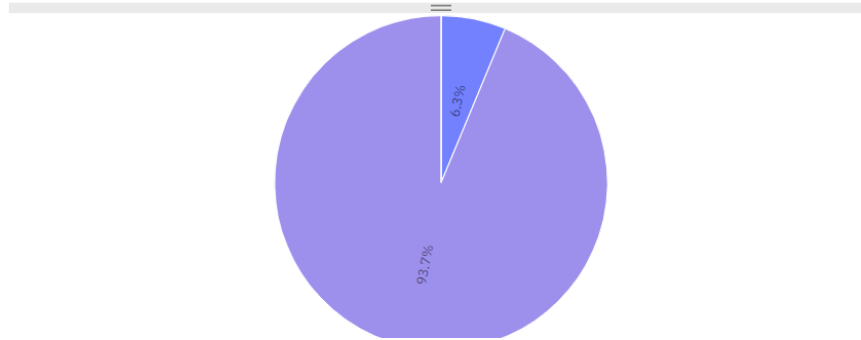
Demographics



Respondent classified by Gender

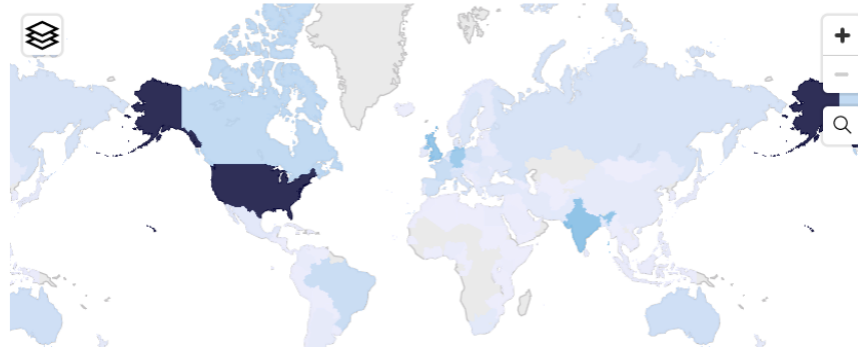
Gender

● Woman ● Man

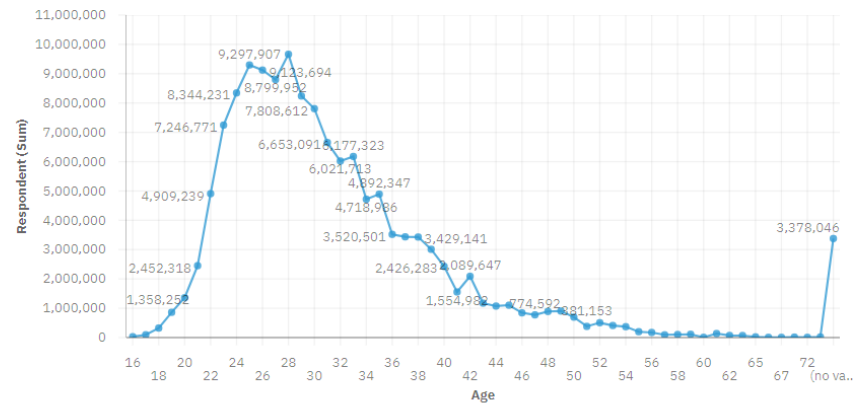


Respondent Count for Countries

Respondent (Sum)  
865 38,170,293

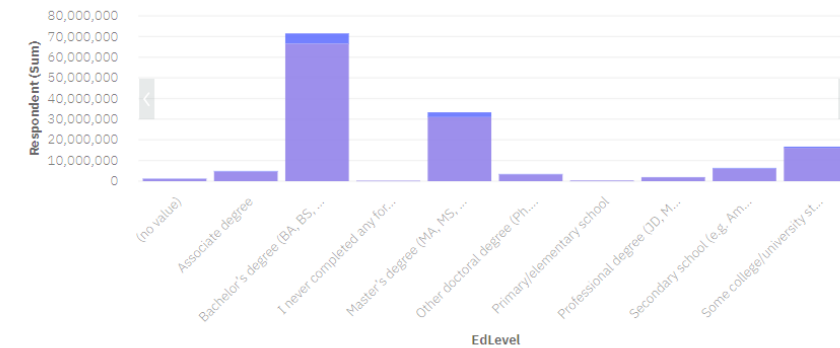


Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level

Gender  
● Man ● Woman



# DISCUSSION

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- Employ People Skilled according to Future Trends
- Employees should learn the new tech stacks keeping in view the future trends so that they don't have to lose job in Future

# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- In Programming C# and Python gaining strength
- In Database Elastic Search and Mongo DB is gaining strength
- In Platforms AWS and Docker remain unchanged
- In Web frames Angular.js remains unchanged whereas React.js is gaining strength

## Implications

- Employers should hire people skilled according to the future trends
- Employees and Beginners should try to learn new technologies



# CONCLUSION

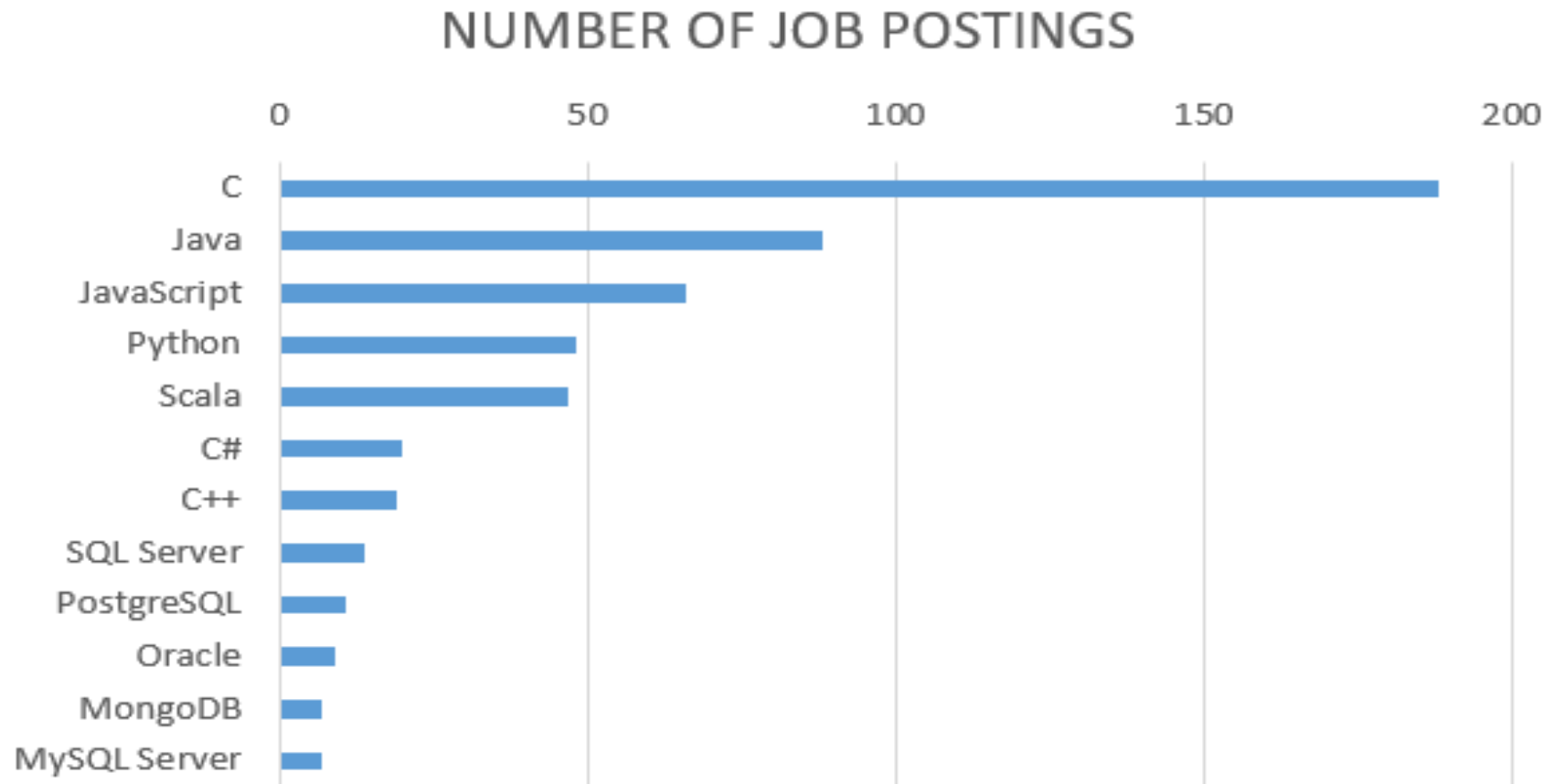
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- Employers should make adjustments in staff for those skills no longer in demand
- Making Adjustment means Companies should make arrangements for their existing employees to learn and adapt new tech stacks before hiring new employees

# JOB POSTINGS

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# POPULAR LANGUAGES

AVERAGE ANNUAL SALARY

