



# Stack Overflow Developer Survey -2019

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# OUTLINE

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- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
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# EXECUTIVE SUMMARY

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- Stack Overflow's annual Developer Survey is the largest and the most comprehensive survey of people who code around the world.
- It enhances the quality of Trend predictions related to technologies and developing skills.
- The purpose of analyzing the developer dataset is to make well informed decision regarding the hiring, budgeting and usage of relevant data technologies to achieve the business target goals.

# INTRODUCTION

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- The presentation will help identify future skill requirements in the global IT sector necessary for the firm to keep pace with changing technologies and remain competitive.
- Recommendations will be stated based on the analysis.
- This presentation give you insights about :
  - Current and future trends in Programming Languages, Databases, Platforms and Webframes.
  - Demographics based on Country, Age, Educational Level and Gender in IT Development sector.
  - Required or Desired relevant skills and technologies in IT field.

# METHODOLOGY

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- Collecting survey data & explore it's content
  - Web scrapping
  - APIs
  - Request library
- Data Wrangling
- Exploratory data analysis
  - Analyzing data distribution
  - Handling Outliers
  - Correlation
- Data Visualization
- Dashboards

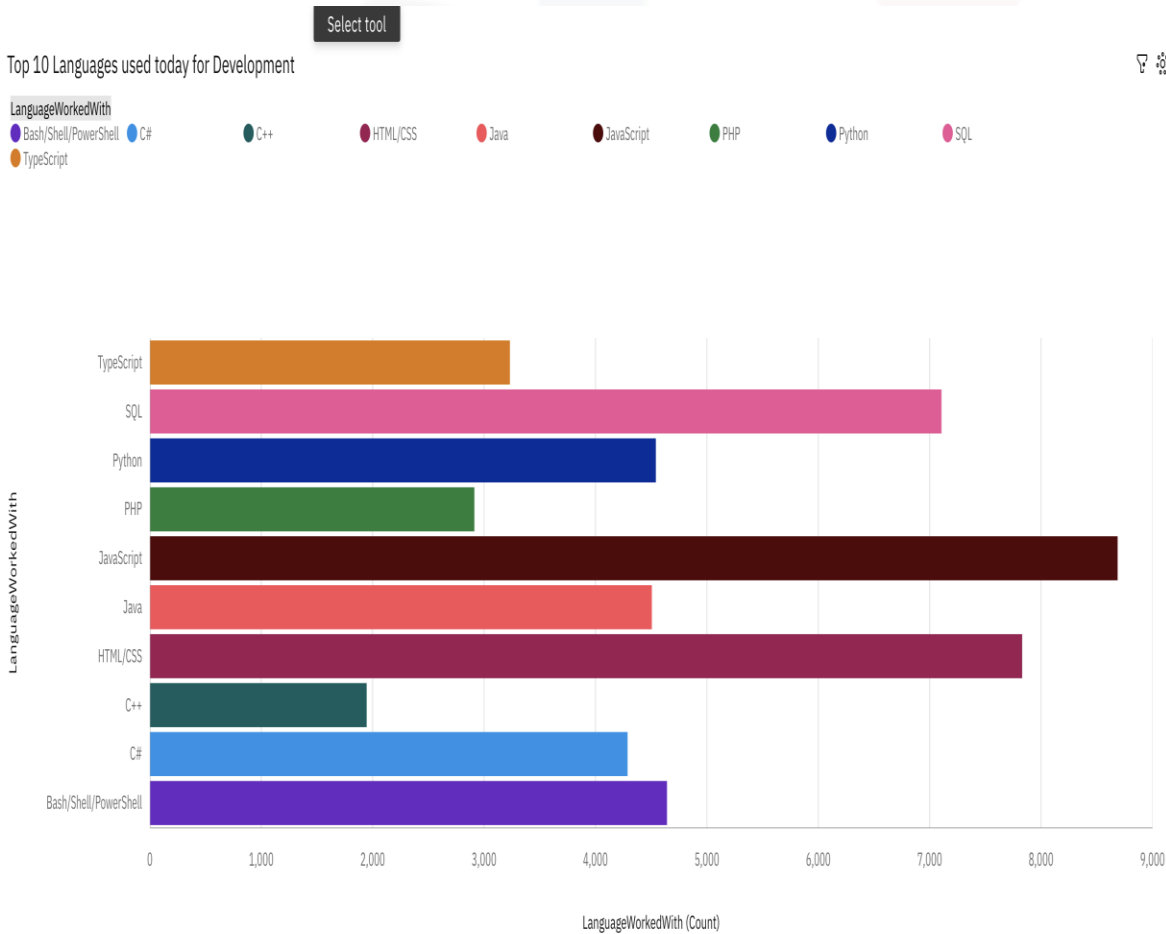
# RESULTS

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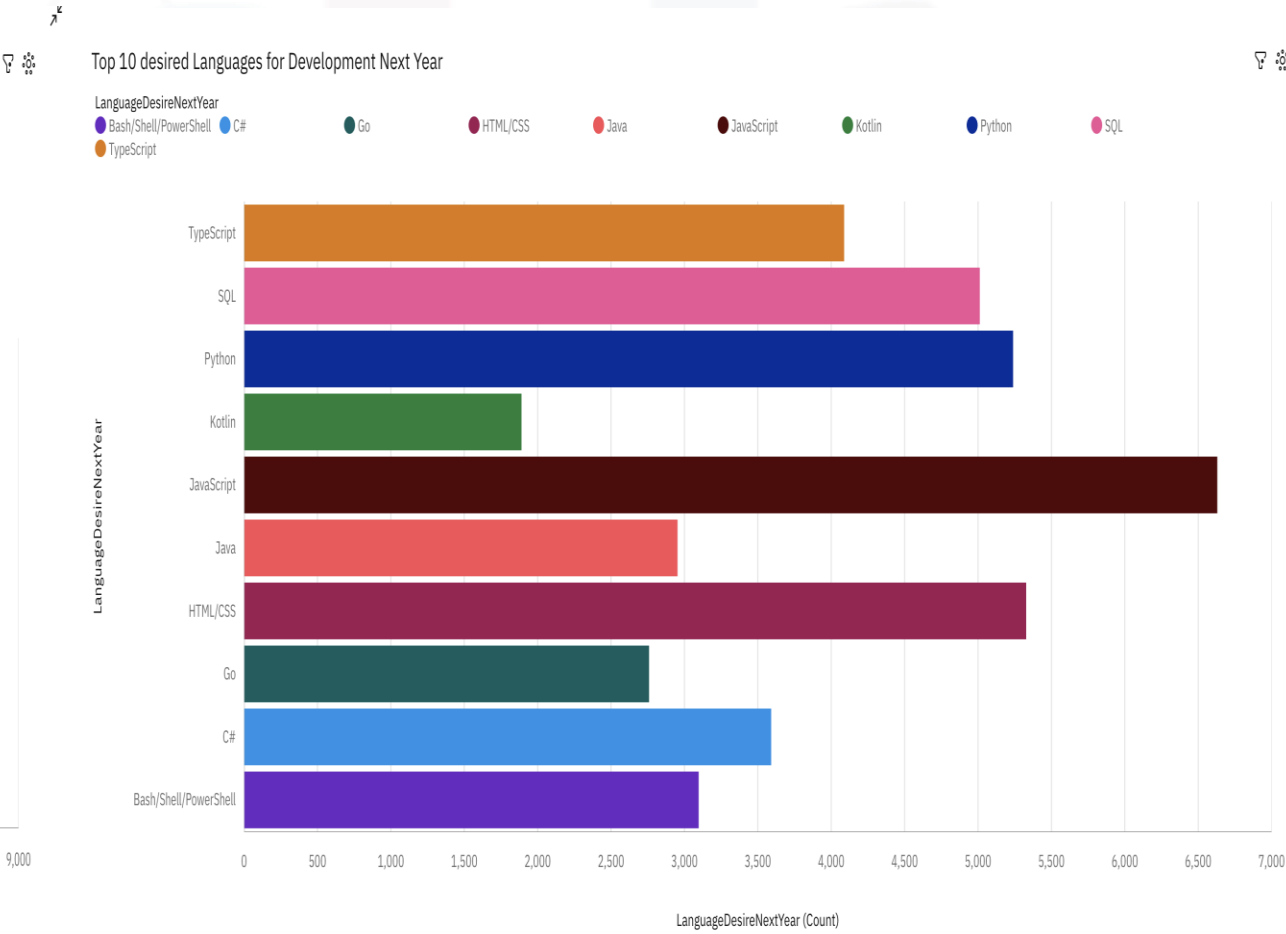


# PROGRAMMING LANGUAGE TRENDS

## Current Year



## Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- JavaScript and HTML/CSS maintain the top spot on the chart as two most popular programming languages for this year and next.
- Python and TypeScript show an upward trend as desired language to work with for the next year.
- Interest in SQL and Bash/Shell/Powershell has dipped for future.

## Implications

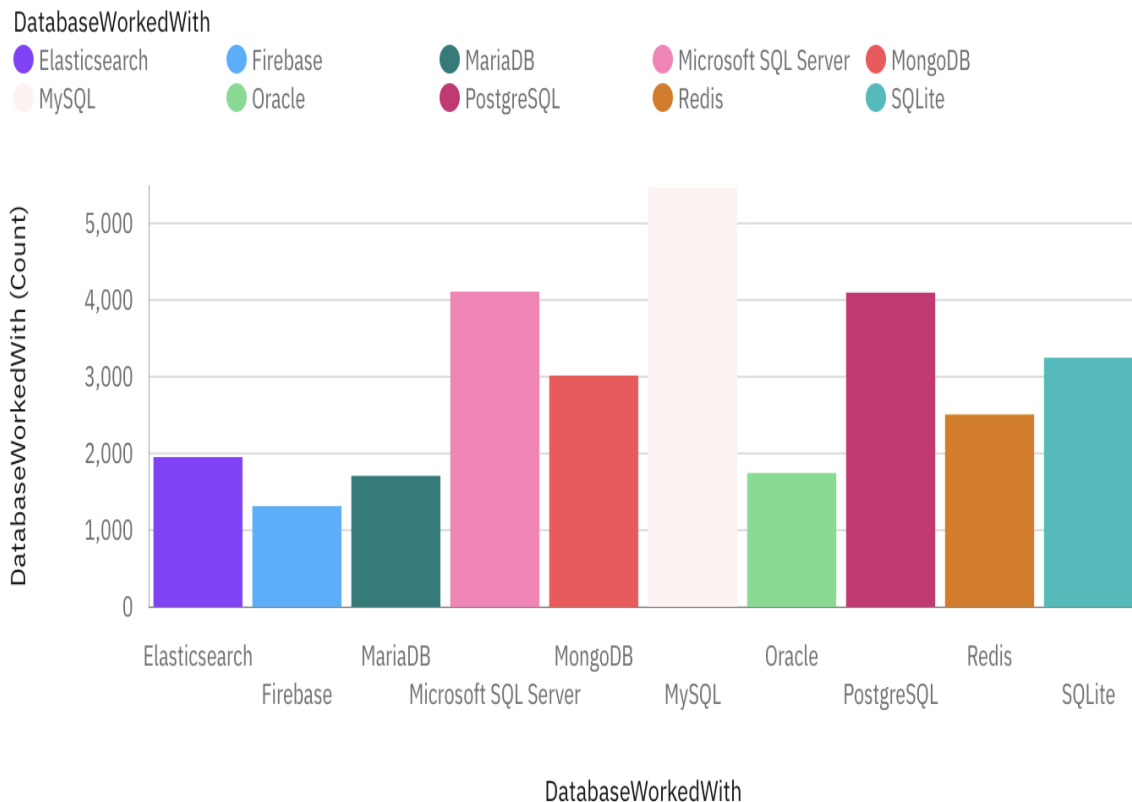
- Businesses can still hire a similar number of people skilled in JavaScript and HTML/CSS.
- Hirings for people skilled in Python and Typescript can be increased.
- Employees skilled in SQL and Bash/Shell/PowerShell should be maintained not hired.



# DATABASE TRENDS

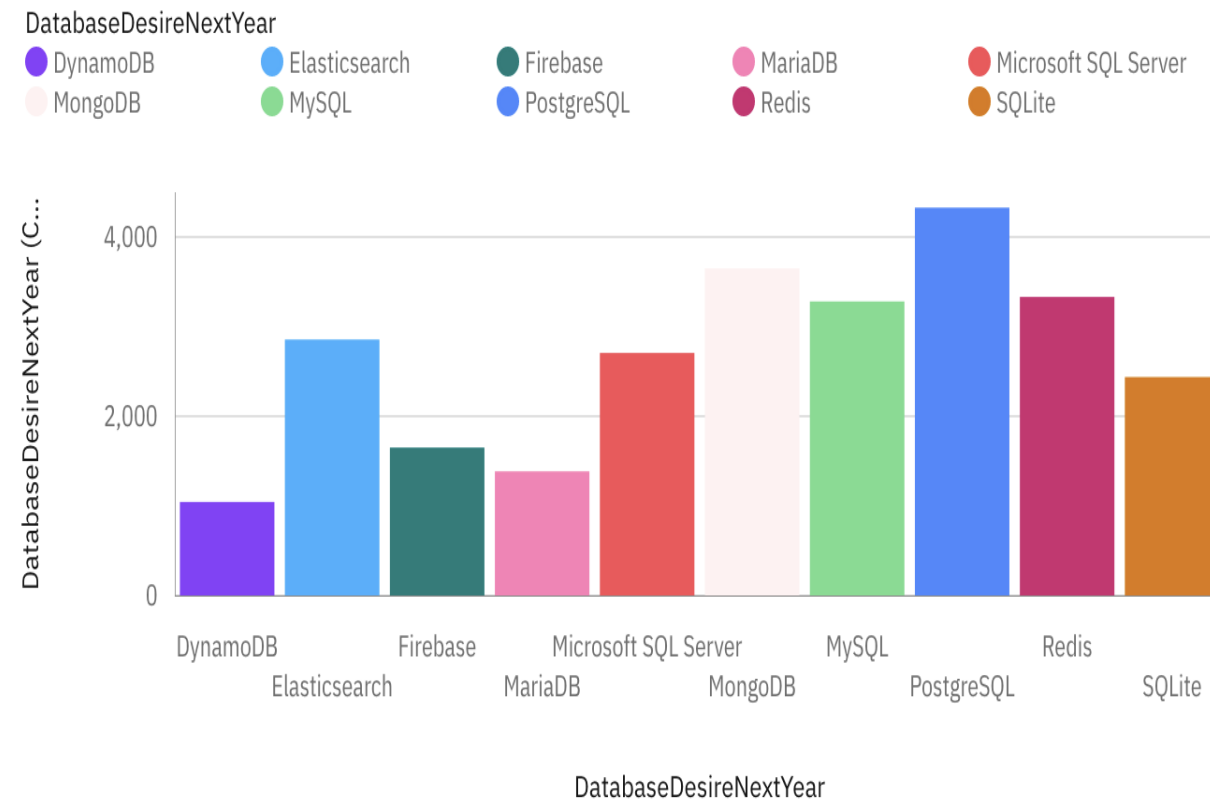
## Current Year

Currently Used Top 10 Databases



## Next Year

Top 10 Desired Databases in Data Technologies for Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Trend depicts a downfall in interest in MySQL, Microsoft SQL Server and SQLite for next year.
- Interest in PostgreSQL and MongoDB have drastically increased the future year.
- Redis and Elasticsearch also gained interest as desired databases for next year.

## Implications

- Hiring for people skilled in MySQL, Microsoft SQL Server and SQLite should be lowered.
- Employment in PostgreSQL and MongoDB skilled workforce can be raised.
- Number of people skilled in Redis and Elasticsearch can also be increased.

# DASHBOARD

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[Click here to view Cognos dashboard](#)

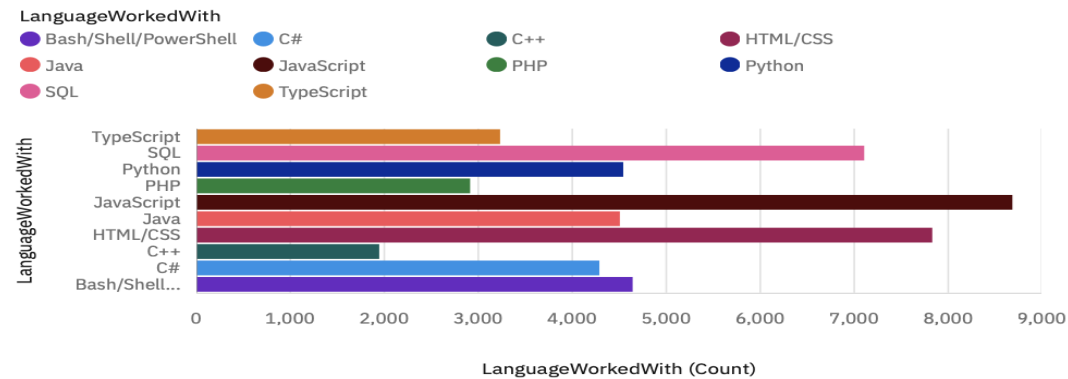
# DASHBOARD TAB 1

Current Technology Usage dashboard

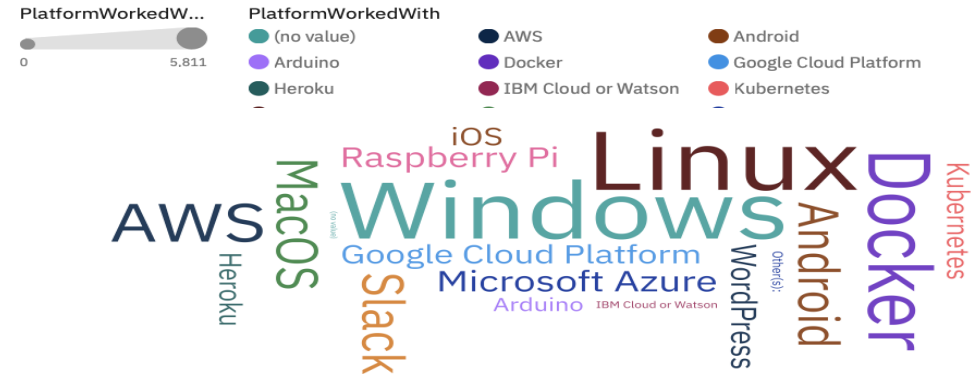
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## Technology Usage

### Top 10 Languages used today for Development

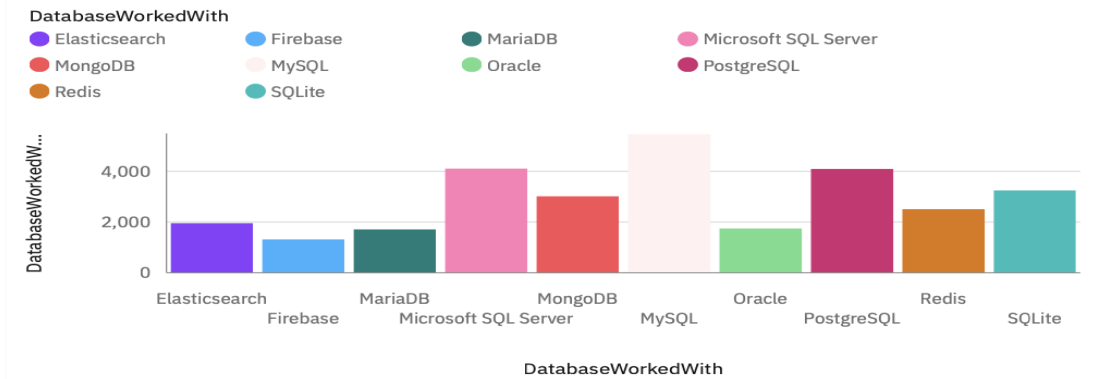


### Most used Platforms by Developers Today



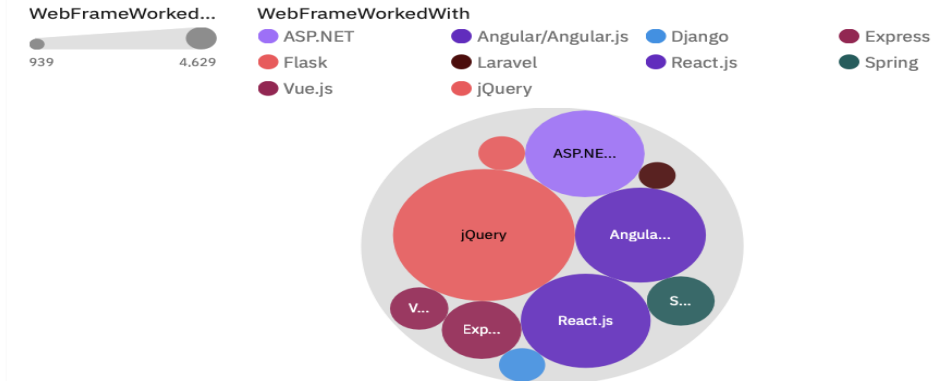
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### Currently Used Top 10 Databases



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### Currently used Top 10 WebFrames in Data Technologies



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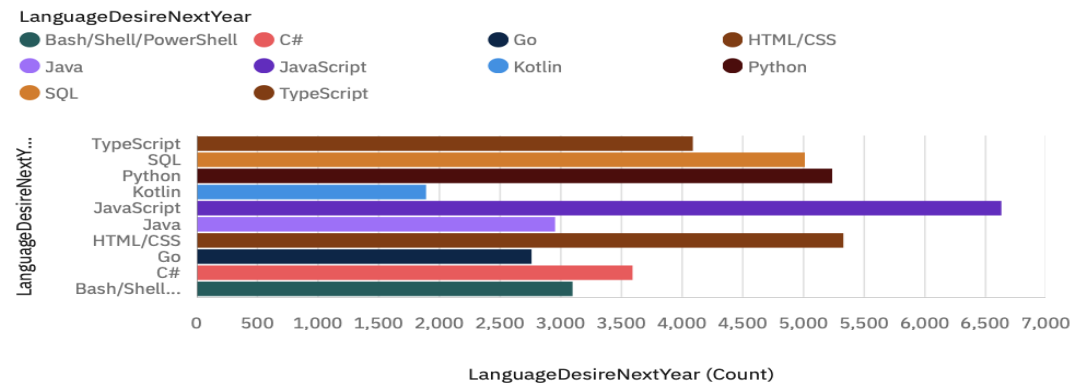
# DASHBOARD TAB 2

Future Technology Trend dashboard

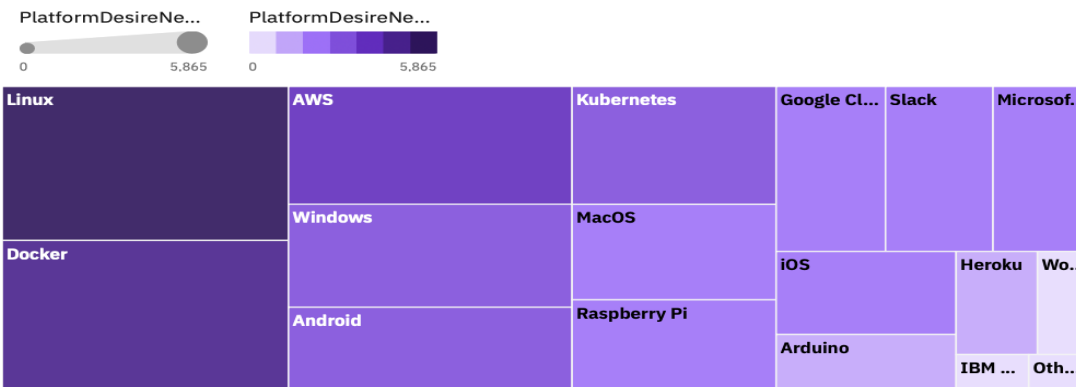
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## Technology Trend

### Top 10 desired Languages for Development Next Year

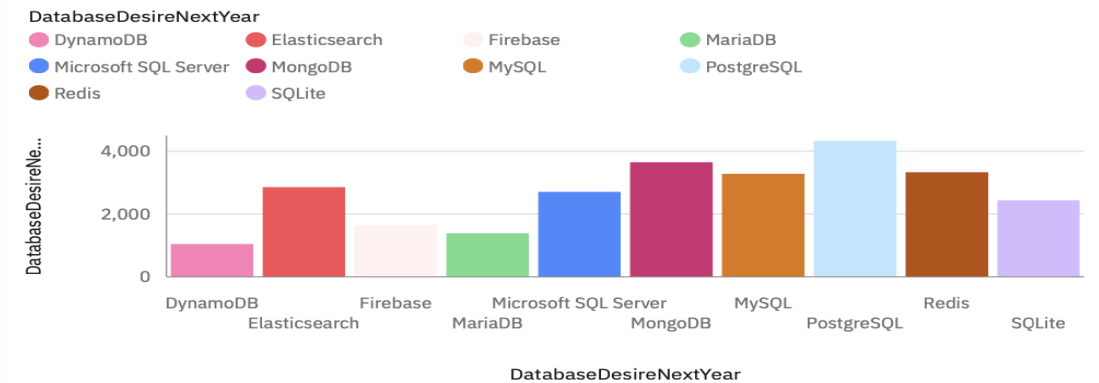


### Desired Platforms to Work on for Coming Year



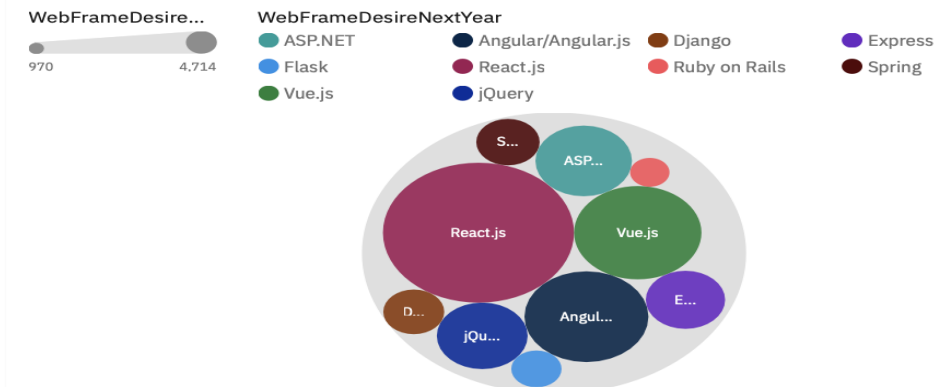
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### Top 10 Desired Databases in Data Technologies for Next Year



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### Top 10 Desired WebFrames to Work With Next Year



3

# DASHBOARD TAB 3

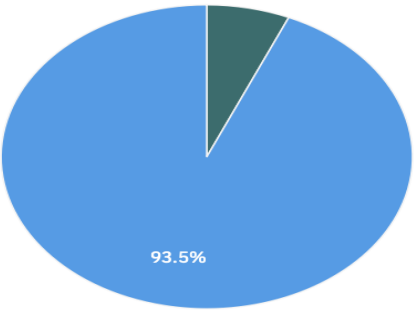
Demographics dashboard

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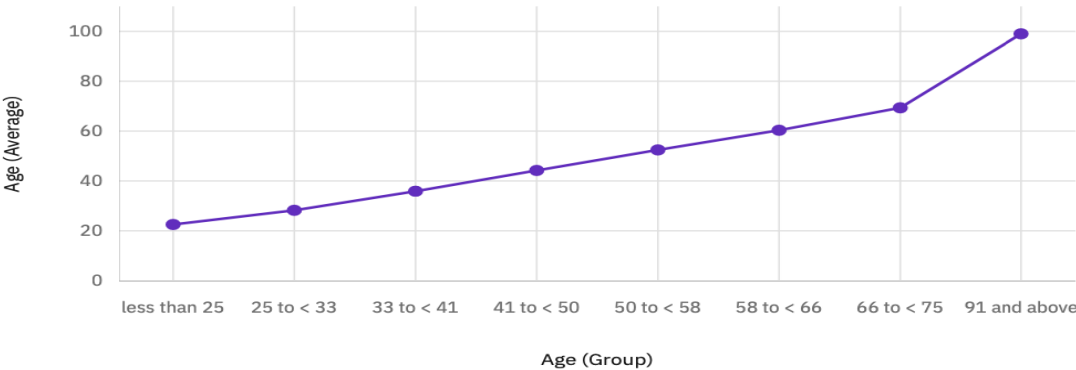
## Stats

Demographics in IT Development sector by Gender

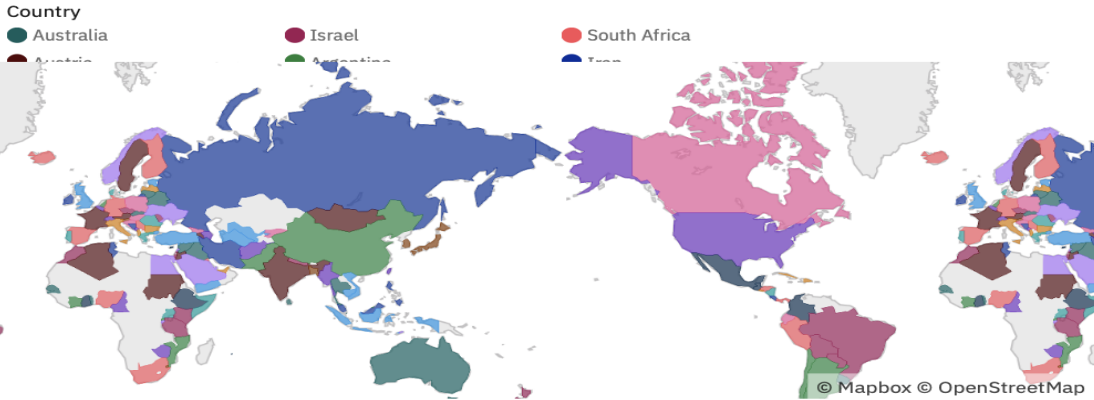
Gender  
● Woman ● Man



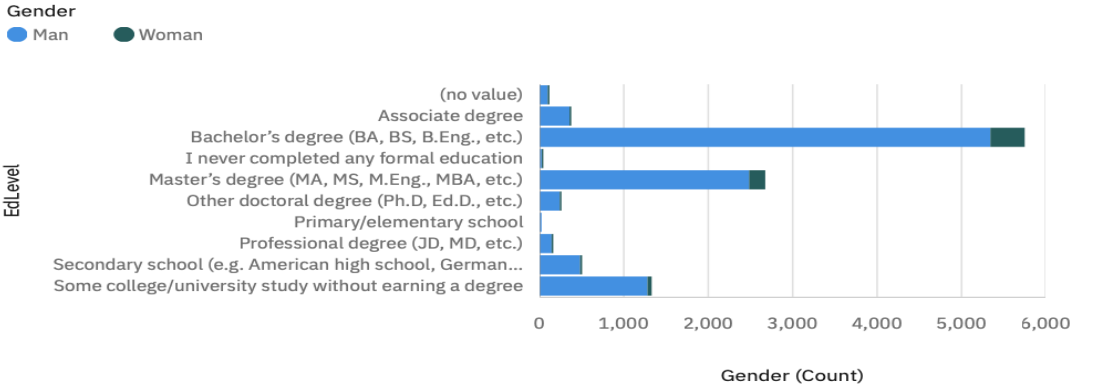
Statistics of Developers in Different Age Groups



1 Demographics of Developers by Country



2 Education Level Statistics by Gender



# DISCUSSION

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# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- More than 90 percent of people surveyed are men.
- The average age of the respondents is 30.
- Typescript is gaining a significant interest and Python shows a steady growth.
- Databases like Redis, Elasticsearch, PostgreSQL and MongoDB are becoming more popular and desired.
- Vue.js is showing a substantial increase in interest and React.js continues to grow as well.
- Slack and Windows are dipping as a platform choice.

## Implications

- The software space continues to be male-dominated sector.
- It still seems difficult to find highly experienced personnel in the field of development.
- Hire enough people for Javascript and HTML/CSS along with an increase in employment for people skilled in Python and Typescript.
- Since PostgreSQL, MongoDB, Elasticsearch, and Redis are gaining interest, a suitable number of workforce can be hired for the same.
- Employ more people skilled in Vue.js and React.js.
- Hire a larger number of people skilled in Docker, AWS and Android, but make reductions to Slack and Windows.



# CONCLUSION

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- Make suitable changes in hiring process according to the skills in demand.
- Financial plans can be made for the fresh recruitments for people skilled in trending technologies.
- Required marketing should be done to increase the reach in labor market across countries in development sector.
- A budget can be assigned to programs that enhance the employment of women in tech.

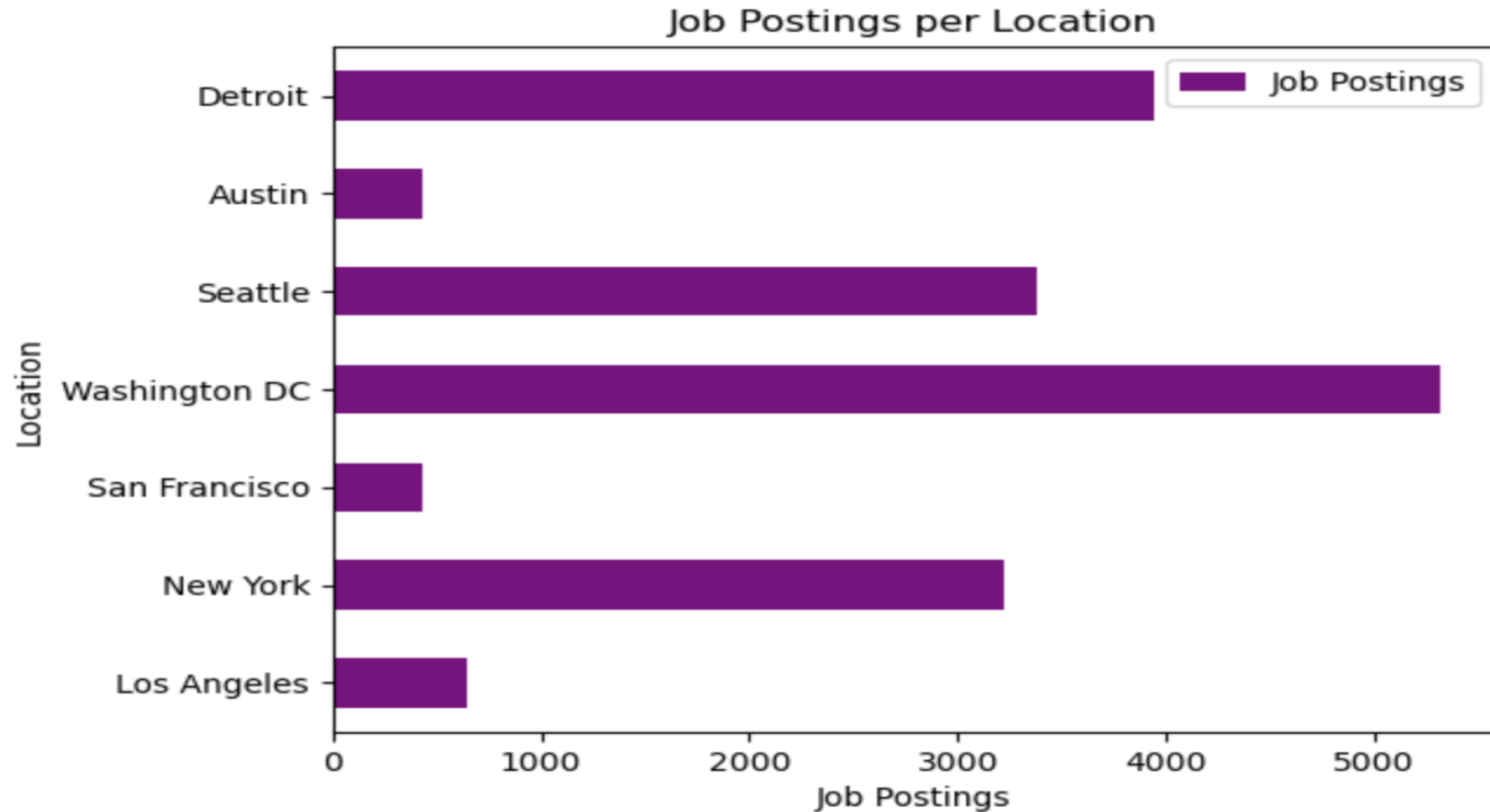
# APPENDIX

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- Relevant additional charts include below that were created during the analysis phase.

# JOB POSTINGS



# POPULAR LANGUAGES

