



STACK OVERFLOW DEVELOPER SURVEY 2019

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OUTLINE



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EXECUTIVE SUMMARY



- Keeping up with modern trends is essential to achieving agile development.
- It is important to identify current and future usage of technology to keep pace with trends so as to remain relevant.
- This presentation reveals
 - current trends in programming languages, databases, platforms and webframes
 - The distribution among different sectors of population and
 - The overall aim which is to identify the future technology trend which will help stack overflow make relevant business decisions.

INTRODUCTION



- An exploratory analysis was carried out on the data to find the distribution of data, presence of outliers and determine the correlation between different columns in the dataset.
- Target Audience:
 - Stack Overflow Stakeholders
 - IT Professionals
- It is important to identify current and future usage of technology to keep pace with trends so as to remain relevant.

METHODOLOGY



- Using a modified dataset of an online survey of software professionals across the world, the data was wrangled to remove duplicates, impute missing values and normalize the data.
- An exploratory analysis was carried out on the data to find the distribution of data, presence of outliers and determine the correlation between different columns in the dataset.
- Visualizations were made to study the relationship between the features of the data.
- Cognos dashboard embedded (CDE) was used to create a dashboard comprising of "current Technology Usage", "Future Technology Trends" and "Demographics".

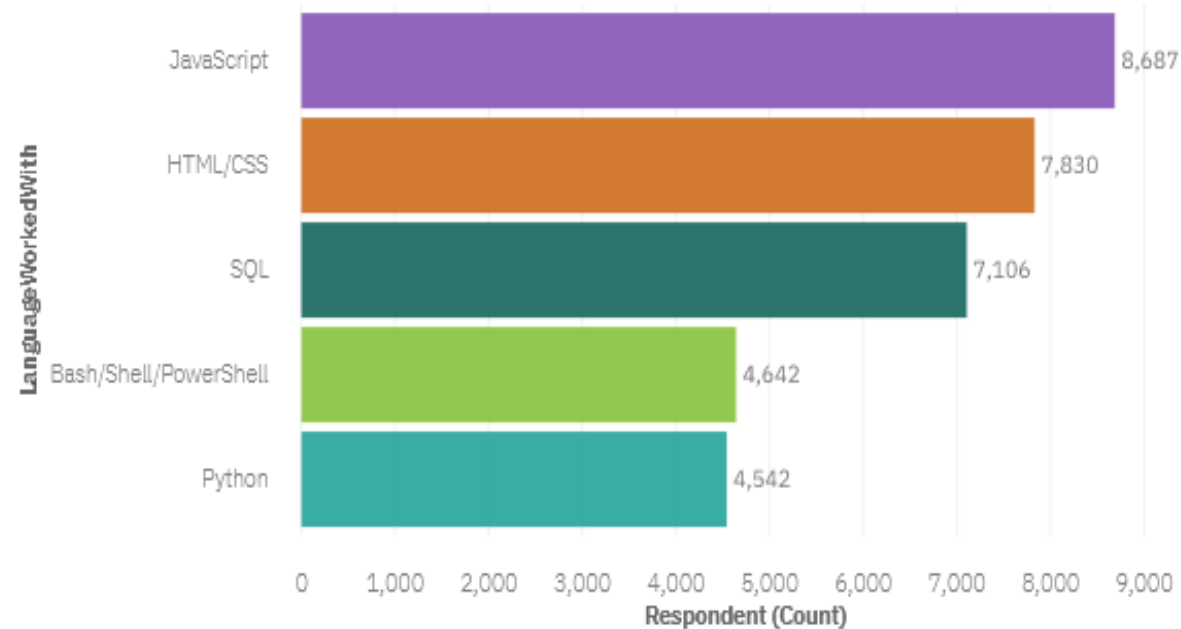


RESULTS

PROGRAMMING LANGUAGE TRENDS

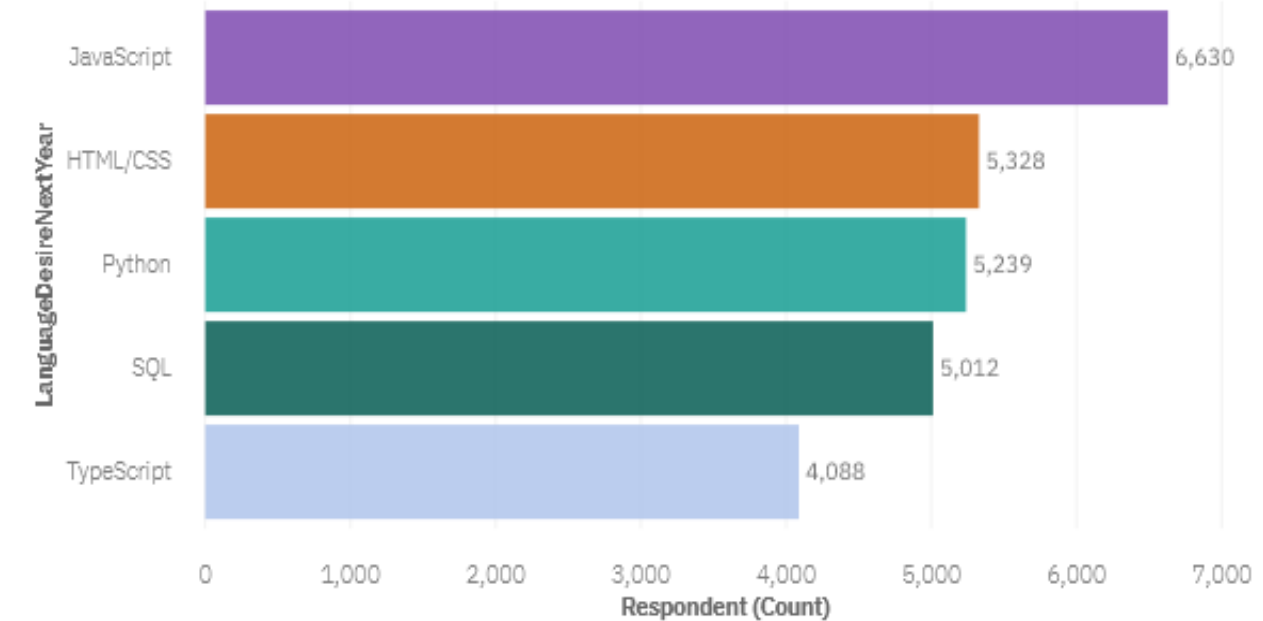
Current Year

Top 5 Languages Worked With



Next Year

Top 5 Language Desired Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

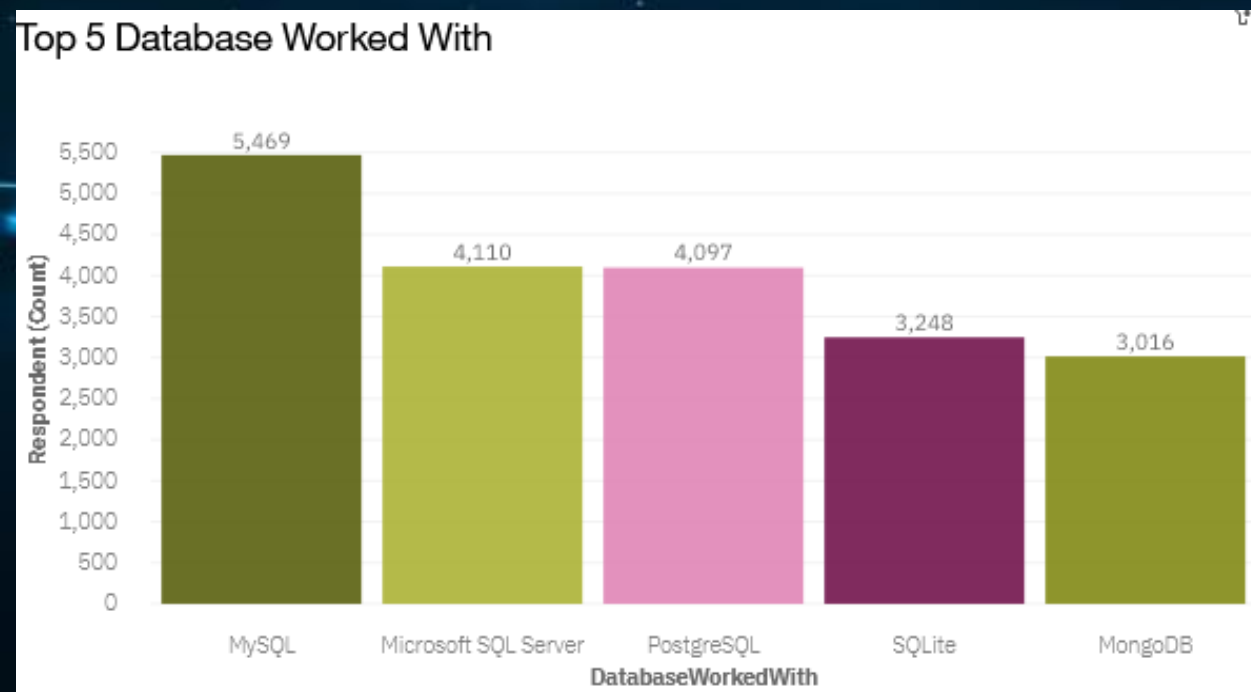
- Javascript and HTML/CSS are the top two programming languages worked with.
- Python and Typescript gained more interest in the Coming year.
- SQL and Bash/Shell/Powershell dropped in the trend

Implications

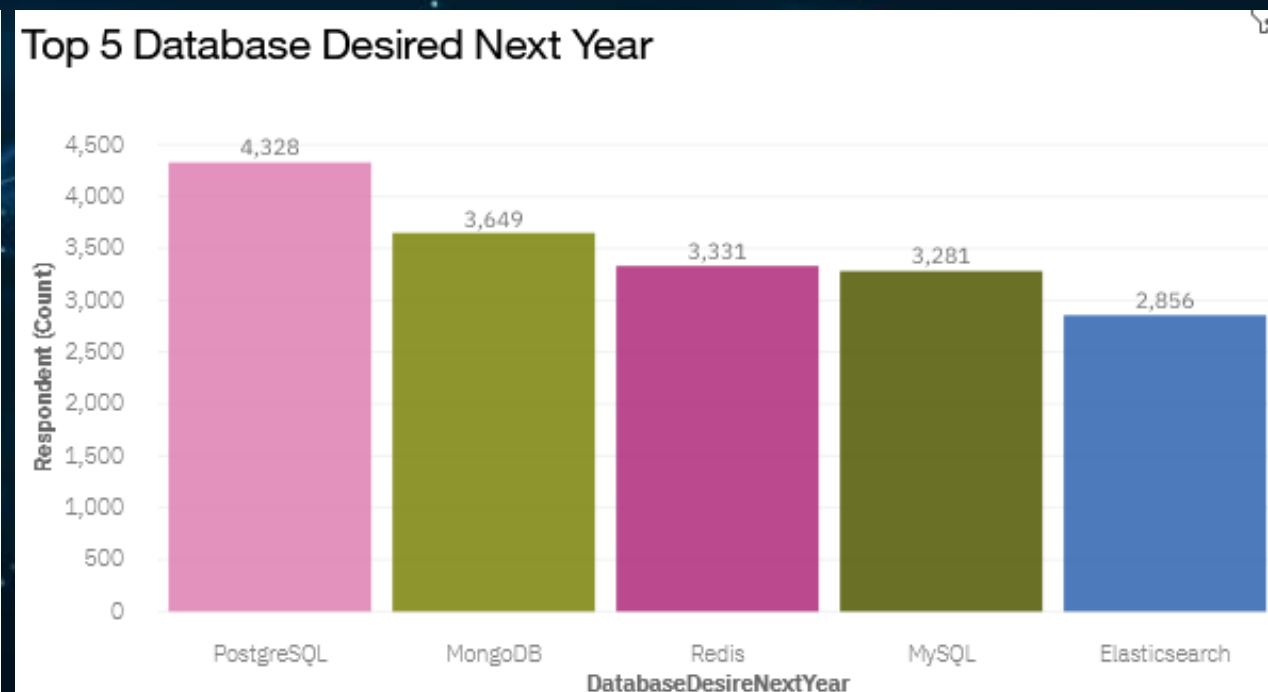
- The focus on Javascript and HTML/CSS should remain as they remain the top languages.
- Attention can be drawn away from SQL and Bash/Shell/Powershell as they appear to go down the trend
- Employ more people with Python and Typescript skill

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the top database worked with but no longer desired next year
- Postgre and MongoDB gained more interest for next year.
- Microsoft Server lost interest for next year as ElasticSearch becomes more desired.

Implications

- Hire more of those skilled in Postgre and MongoDB and ElasticSearch
- Less attention should be given to those with MySQL and MicrosoftServer

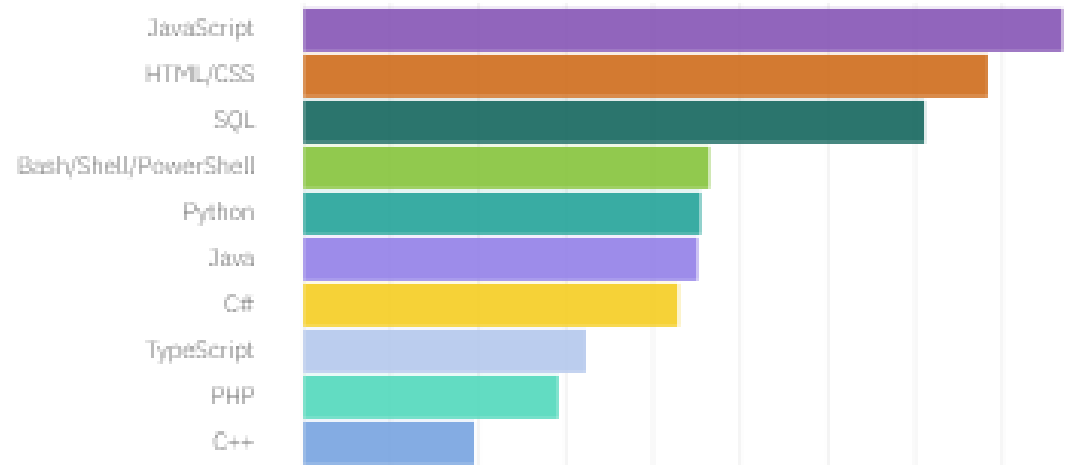
DASHBOARD



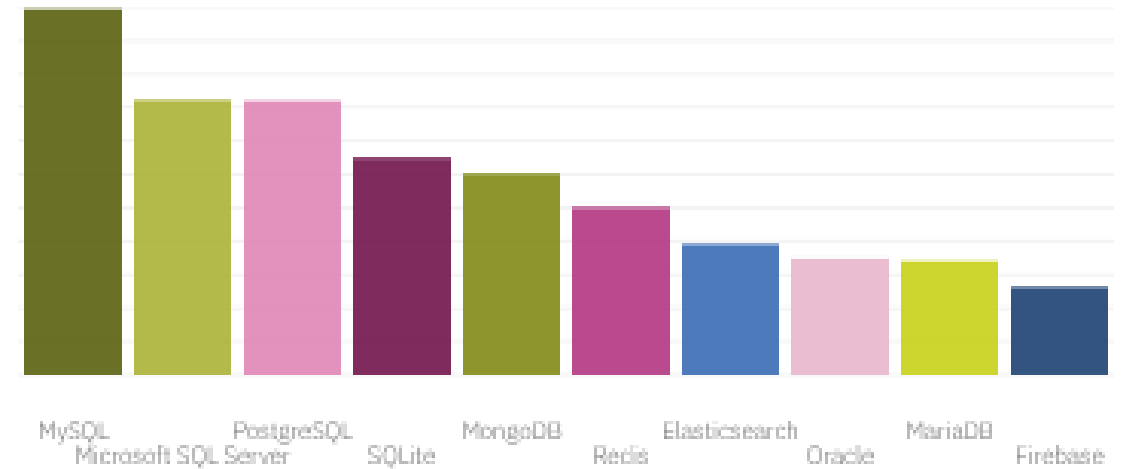
Click [here](#) to view the dashboard

Current Technology Usage

Top 10 Languages Worked With



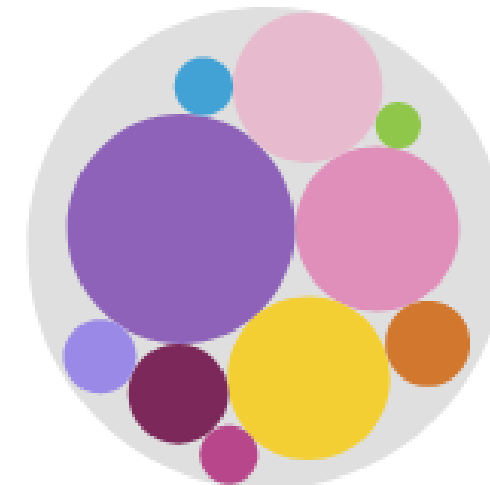
Top 10 Database Worked With



Platform Worked With

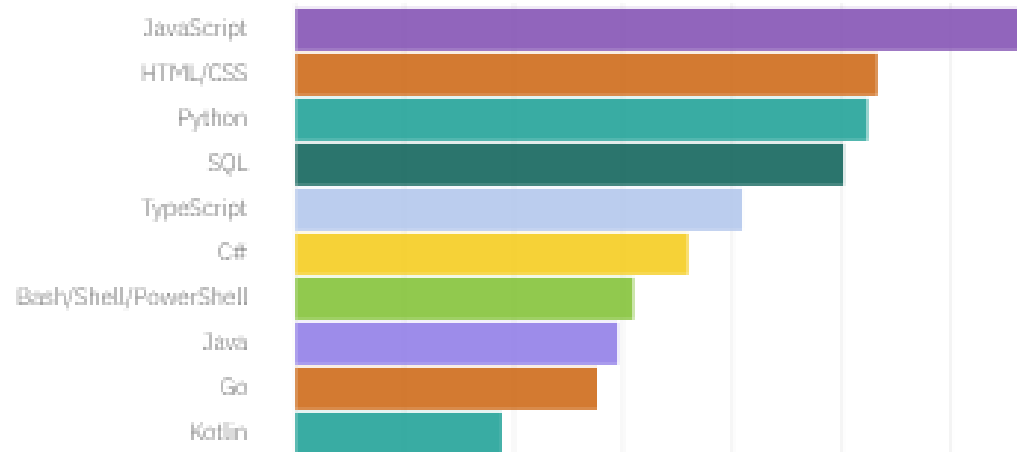


Top 10 Webframe Worked with

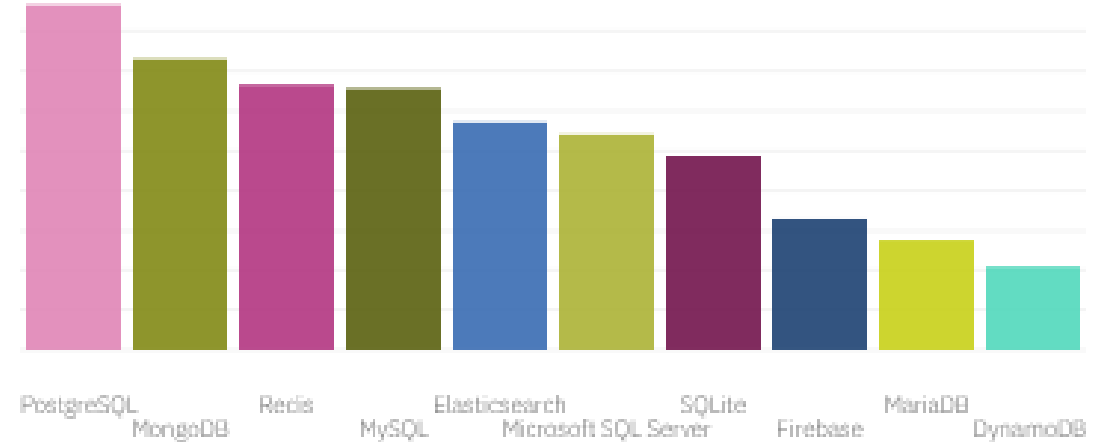


Future Technology Trend

Top 10 Language Desired Next Year



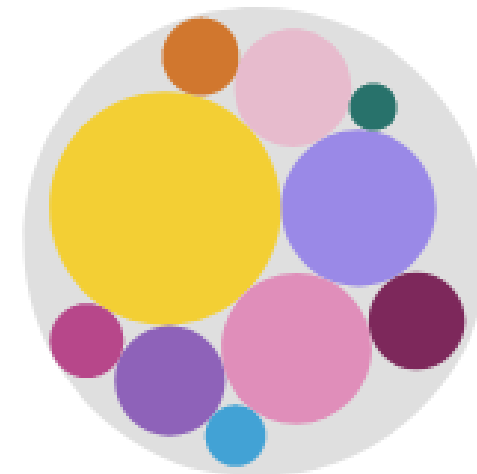
Top 10 Database Desired Next Year



Platform Desired Next Year



Top 10 WebFrame Desired Next Year

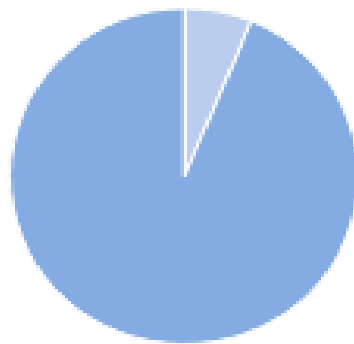


Demographics

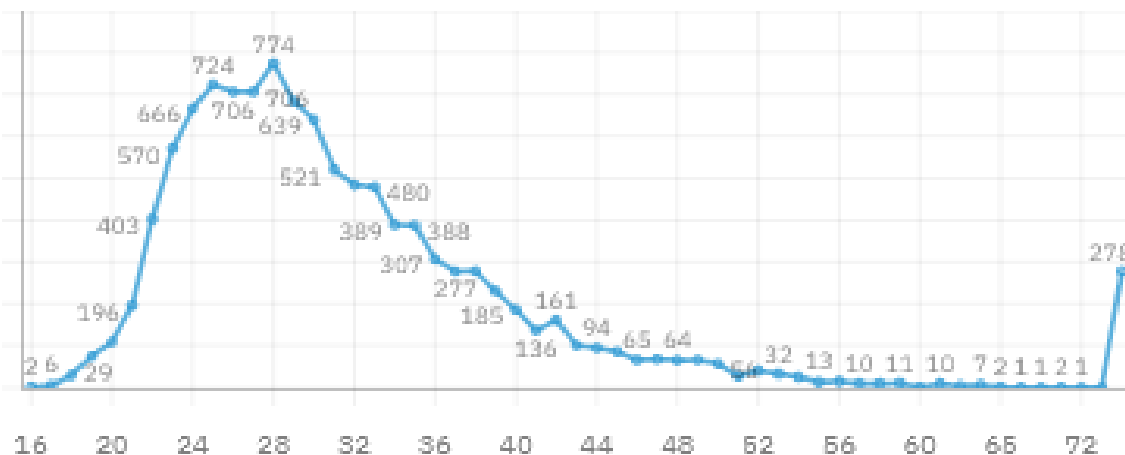
Respondent Classified by Gender

Gender

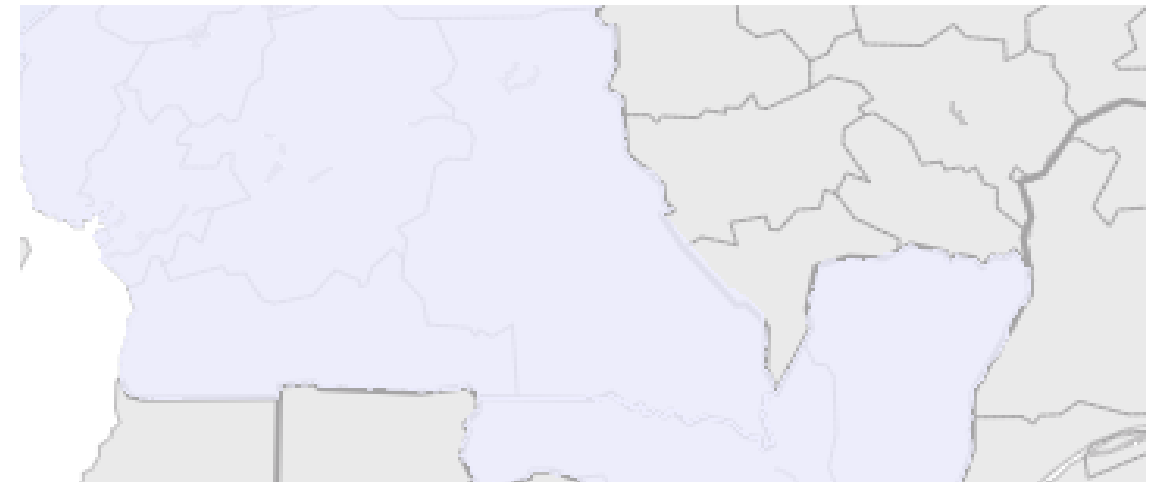
● Woman ● Man



Respondent Count by Age



Respondent Count for Countries



Respondent by Gender Classified by Formal Education Level

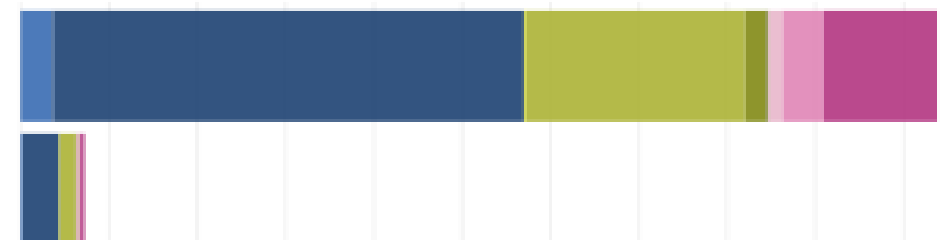
EdLevel

● Associate degree

● Bachelor's degree

Man

Woman



OVERALL FINDINGS & IMPLICATIONS

Findings

- Languages: Javascript and HTML/CSS remains the top 2 languages meanwhile, Python and Typescript gains significant desired interest as Bash/Shell/PowerShell loses interest.
- Databases: PostgreSQL topples MySQL with ElasticSearch, MongoDB and Redis gaining interest.
- Platforms: There is significant fall in desire for Windows as Linux remains top
- WebFrames: Vue.js gains significant interest and JQuery loses substantial interest next year.

Implications

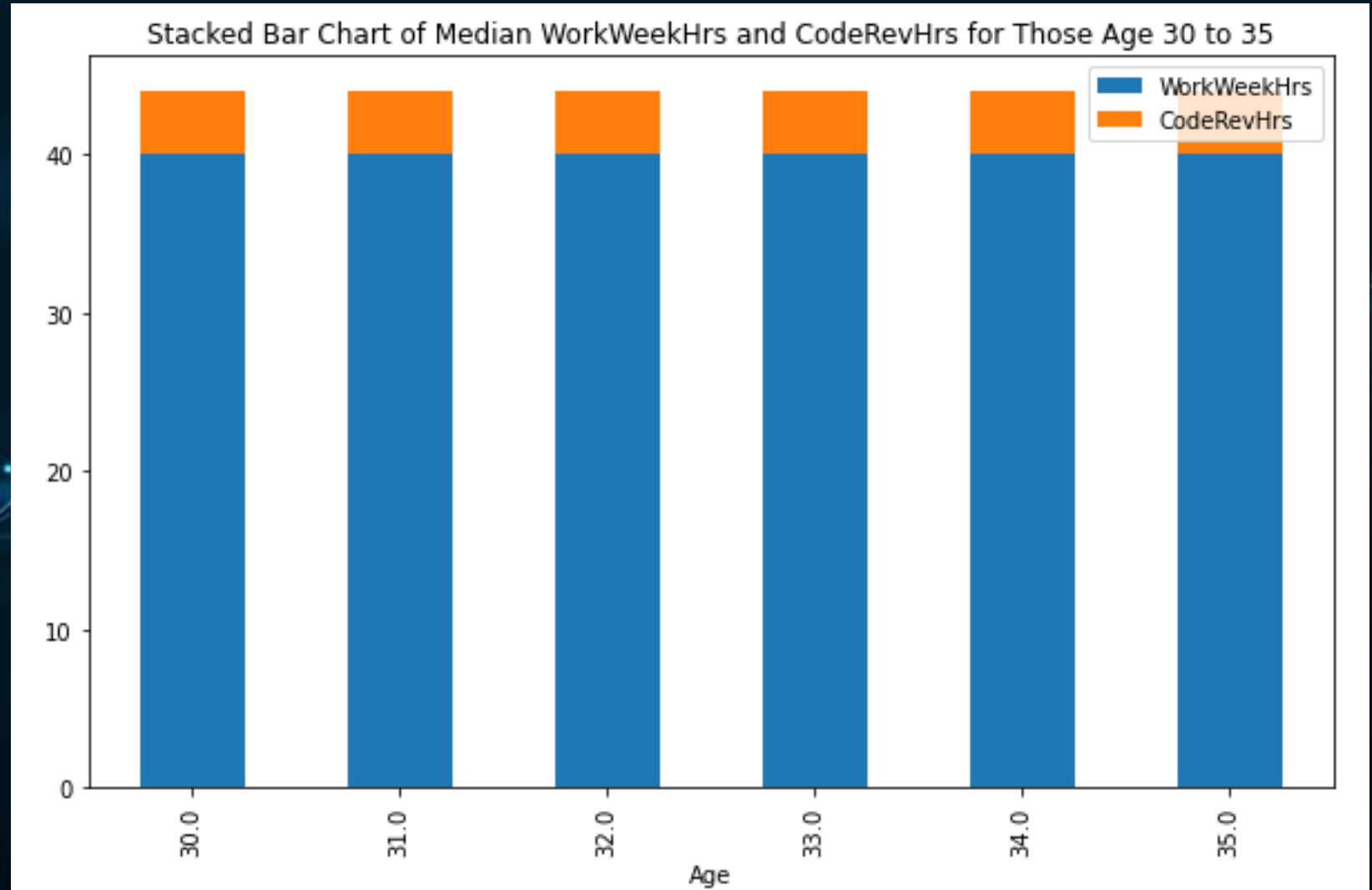
- Languages: people with Python and Typescripts will be needed.
- Databases: Adjustments will be made for those with MySQL knowledge and attention will be drawn towards MondoDB, ElasticSearch and Redis.
- Staff reduction to Windows will be required or an upskill to Linux.
- Webframes: More staff with vue.js will be valued.

CONCLUSION

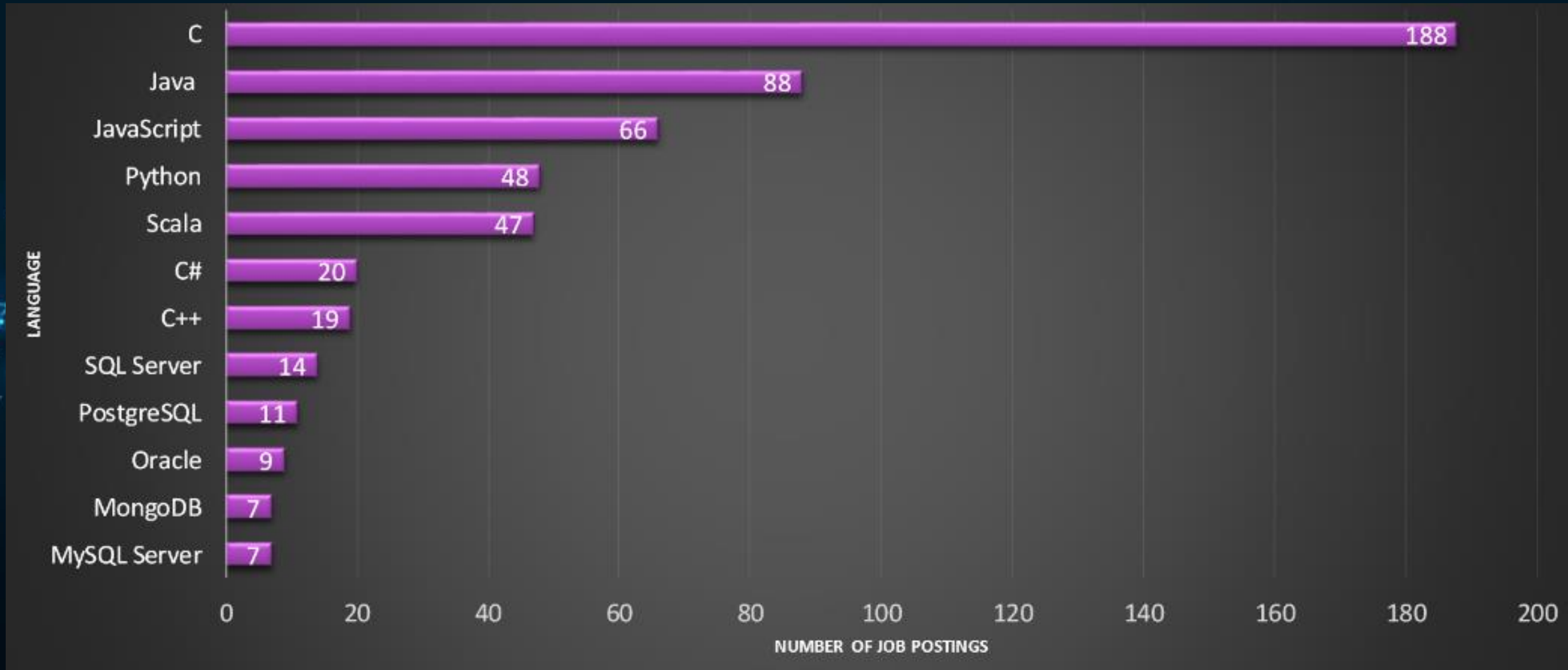


- Hire more people with the top skills and desired skills.
- Plan to upskill employees with the relevant skills.
- Make considerations for those with skills no longer in demand

APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

