Analysis of Trending • Technologies

-IBM Data Analyst Professional Certificate-

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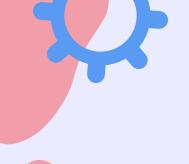
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Executive Summary

- Understanding trends within the IT industry
 - Programming languages
 - Databases
 - Webframes





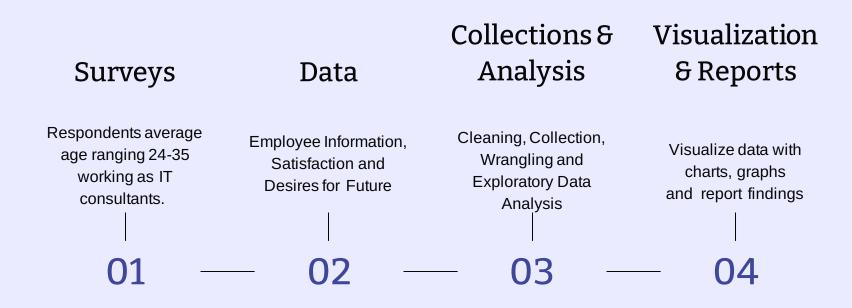
Introduction



- Objective analyze the trends of software development within the IT industries
- Identify
 - What are the top programming languages in the industry and why?
 - What databases are desired by respondents?
 - What are the potential web frames to gain popularity?



Methodology







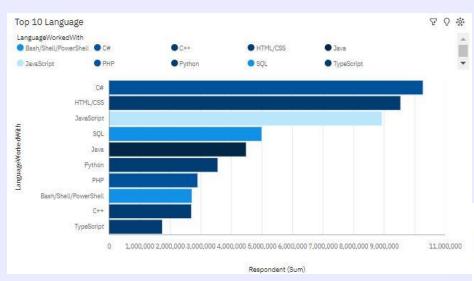
Charts, Findings, Implications and Dashboard Results

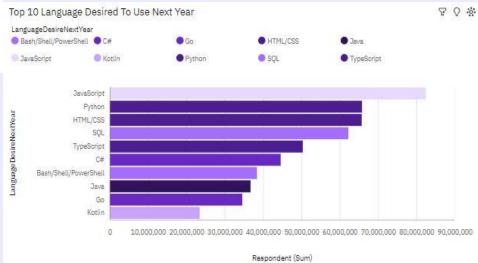






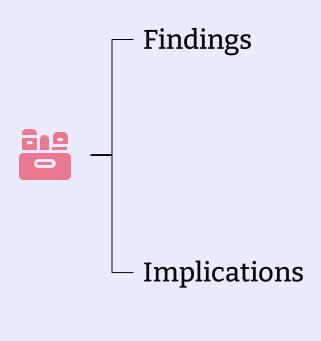
PROGRAMMING LANGUAGE TRENDS







Programming Languages Trend



- JavaScript, HTML/CSS and SQL are the top three current languages being used
- JavaScript, Python and HTML/CSS are the top three languages desired to use next year
- Go and Kotlin are two languages that are highly desired in the field, but were not commonly used by respondent.

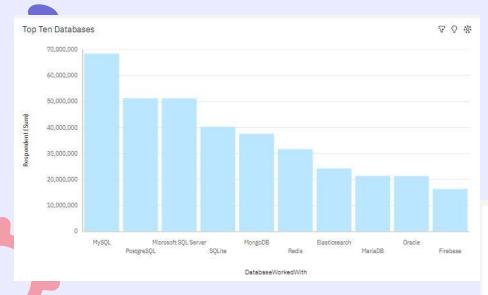
- Web Development languages are highly preferred
- Python is becoming more desired on the backend
- Go and Kotlin are becoming more popular as they have easier processes to create code and can be used in backend projects, like using it for Android applications or webpages.

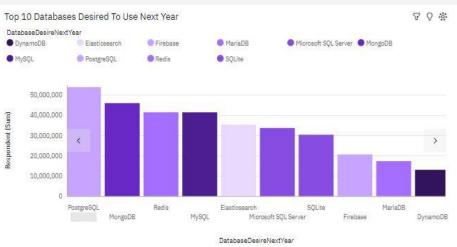




DATABASE TRENDS

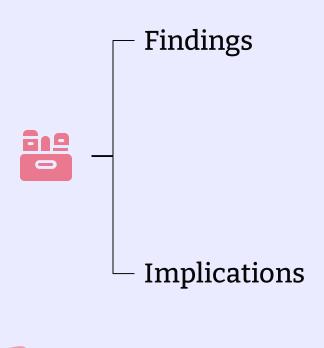








Database Trends



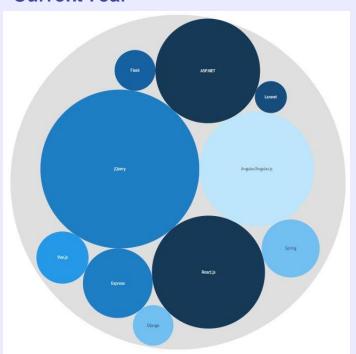
- The top three databases being used are MySQL,
 PostgreSQL, and Microsoft SQL Server
 - Next years top desired databases are Postgre, MongoDB, and Redis
 - New upcoming database wanting to be used is DynamoDB
 - Relational databases are more popular and desired
- Better when sorting data and dealing with projects such as simple data analysis through charts and tables
- Non-relational databases (NoSQL), like MongoDB and Redis, are starting to build popularity
- Would be better to use when dealing with Big Data and having to convert over different types of files and data for analysis



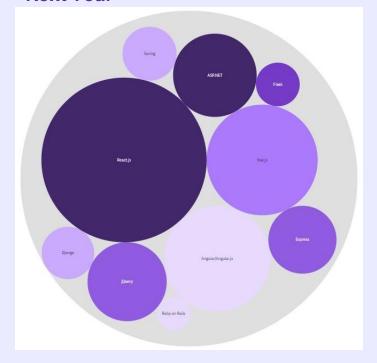


WEBFRAMES TRENDS

Current Year

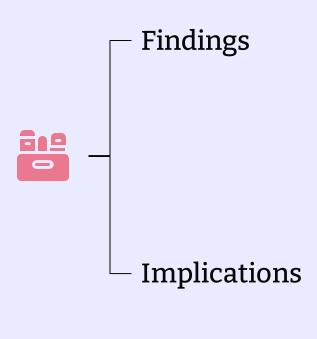


Next Year



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Web frames Trends



- The top three web frames include jQuery,Angular.js, and React.js
 - The top three desired web frames to use next year are React.js, Vue.js, and Angular.js
 - Ruby on Rails replaced Laravel in the top three desired web frames

- The web frames that are desired to use are consistent with the current year record
- Vue.js is gaining popularity
- O High-functionality on front-end development
 - Top companies are already adapting vue.js into their projects, ex. Facebook, Netflix, & Adobe







Dashboard

https://github.com/RafiaHanif/Capstone-Project-2023/blob/f022bbb47e48a1bdf003eadaa7b0274ec1f459 e2/Dashboard%20Final%20Assignment%20(2023).pdf

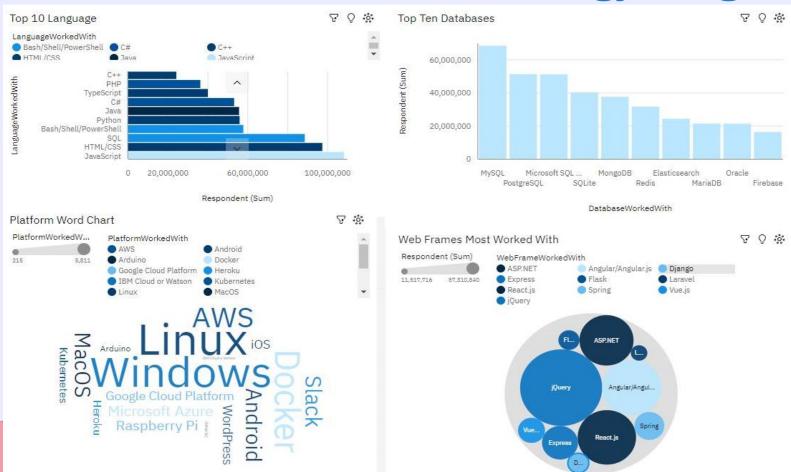




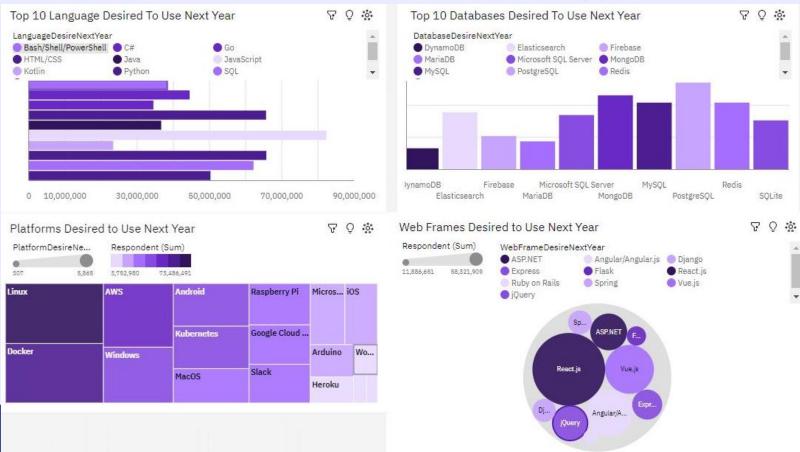


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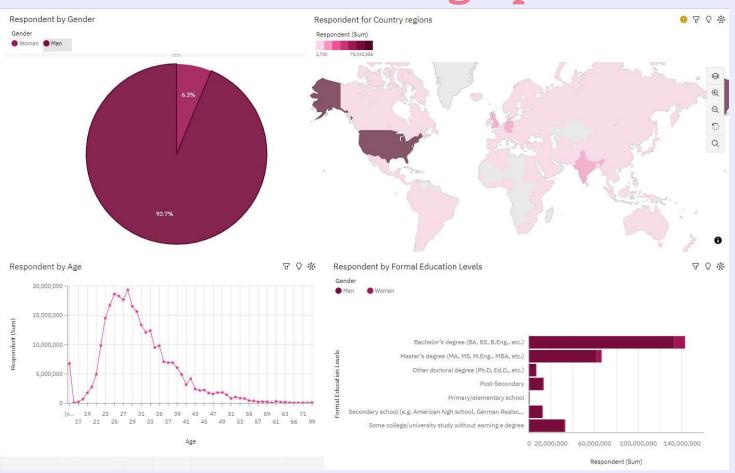
Dashboard: Current Technology Usage



Dashboard: Future Technology Trends



Dashboard: Demographics



Discussion

Which languages would be best for a front-end developer to use to create an Android application?

For the purpose of security and encryption protection, which database would be best suited for the project?

Which web frame is more suitable for a company that wants to build their website and corresponding applications for IOS and Android?

Overall Findings and Implications

Findings

- There is a consistent standard across all respondents on which languages are more suitable to use.
- No-SQL databases are becoming more desired than relational.
- Many web frames only let you create one application, newer web frames allow for better multitasking with making multiple applications through one source

Implications

- Companies should look into which language is best suited for their employees projects
- Comparing the benefits of working with SQL and no-SQL databases can improve productivity within teams
- Respondents are wishing to use more functional web frames that can allow them to use one program for multiple applications





Conclusion

The IT firm would benefit into looking at resources that allow for more efficient production times and better safety nets for the development process.







Thanks!



https://github.com/RafiaHanif/Capstone-Project-2023/

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