



Analyses Around Technology Trends

IJnskje T
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OUTLINE



- Executive Summary
- Introduction
- Methodology
- Results
 - Visualization – Charts
 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
- Appendix

EXECUTIVE SUMMARY



- Trends in Languages & Databases – Current and Future
- Methodology
 - Gathered Data
 - Analyzed Data
 - Visualize & Explanation
- Survey Demographics
- Gap Technology between Countries
- Gender Gaps

INTRODUCTION



- Analyzed Data is based from Stack Overflow Developer Survey in 2019
- We will show the trends between most popular languages & Databases Current & Future
- Platform & Web Frame Current & Future
- Demographics
 - Gender Gap
 - Education
 - Countries overview of all Respondents
 - Age groups of all Respondents

METHODOLOGY

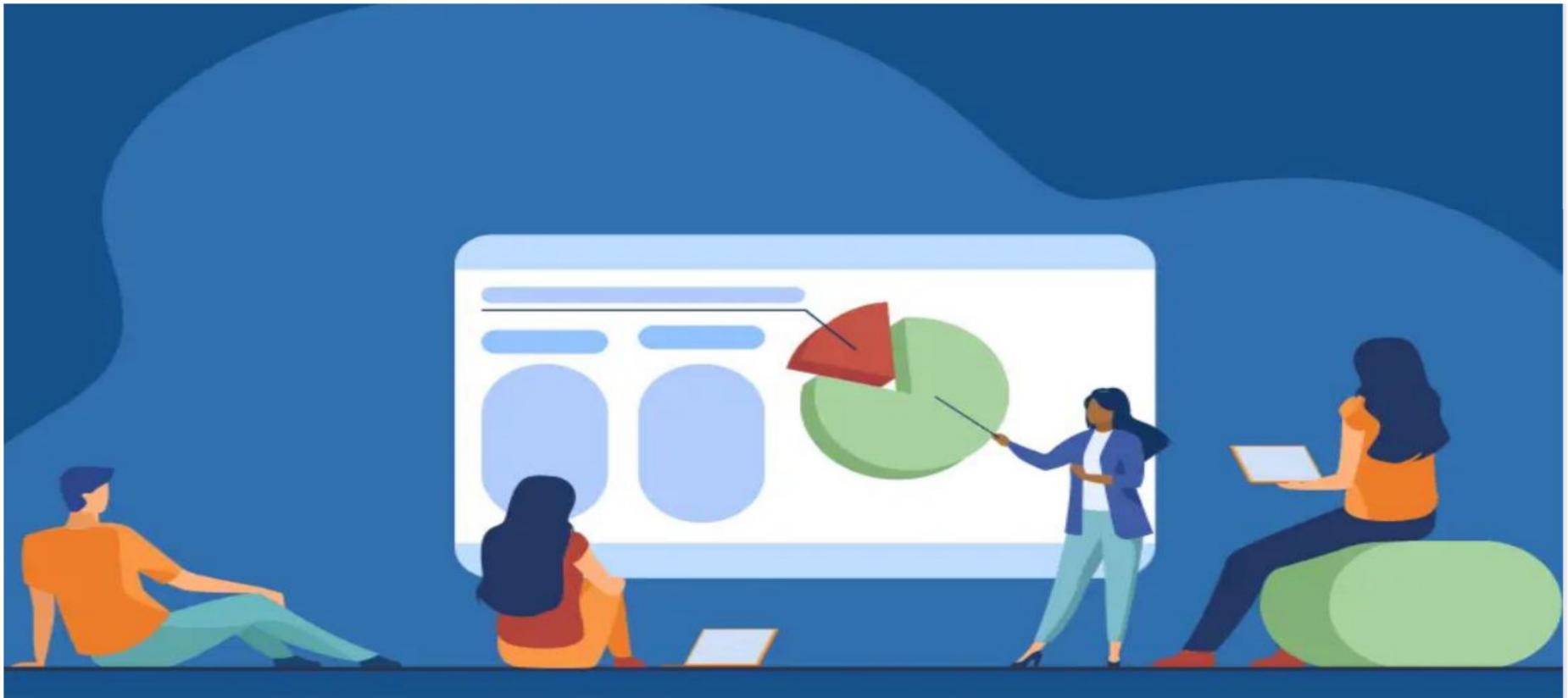


- Collected the data from Stack Overflow Survey
- Web Scrapping
- Data Wrangling
- Data Analyses
 - Cleanup
 - Visualize Data
- Dashboards
- Tools Used
 - Python Jupyter
 - Cognos Analytics
 - Github

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RESULTS



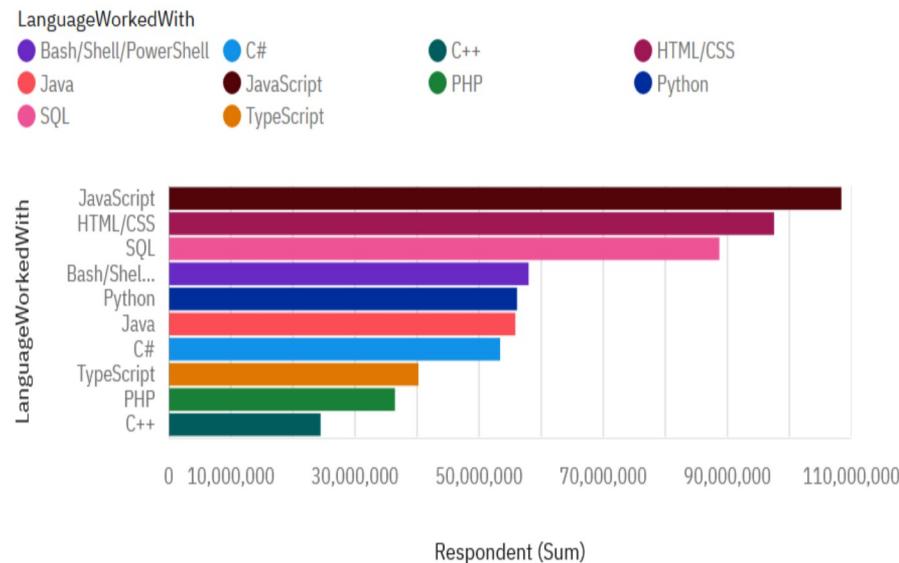
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PROGRAMMING LANGUAGE TRENDS

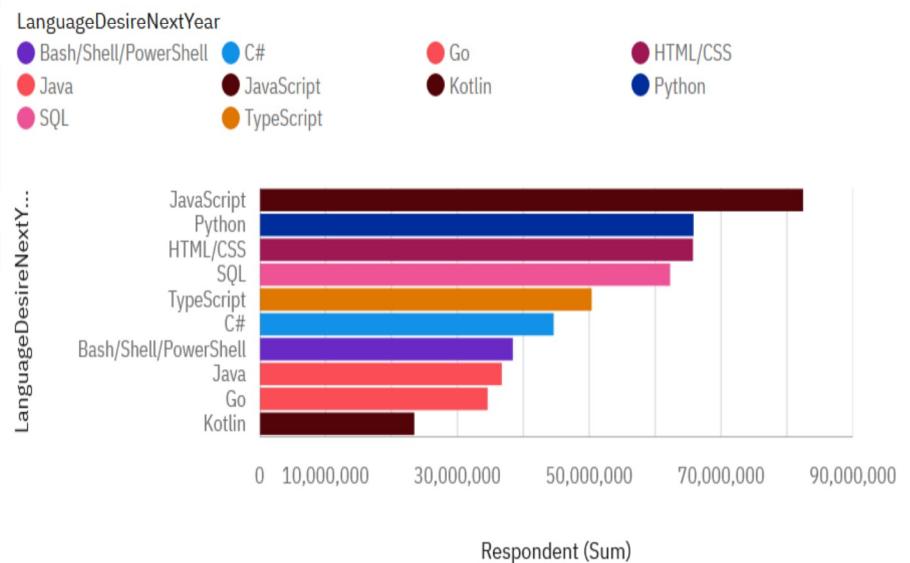
Current Year

Top 10 Language Work With



Next Year

Top 10 Language Desire Next Year



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PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript, HTML/CSS & SQL are still the most popular Languages
- Python is current in the top 5, but next year it on the 2nd place and growing in popularity
- While next year Go & Kotlin made their way in the top 10, PHP left the top 10.

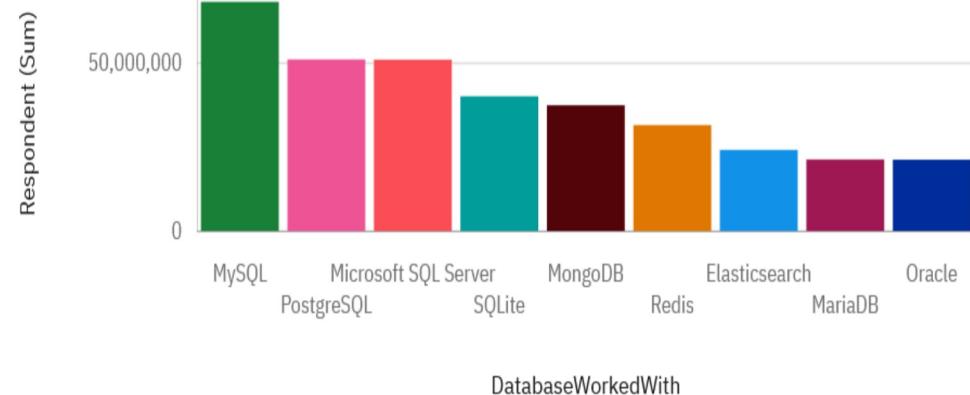
Implications

- If you are in the Data Analyst/Science world, keep up with the changes, and popular languages,
- If you want to became a Data Analyst/Science, follow the trends, Learn Python due to AI skills in demand, SQL is still very important
- If you want to become a Web developer HTML/CSS & JavaScript are still high in demand to have these as skills.

DATABASE TRENDS

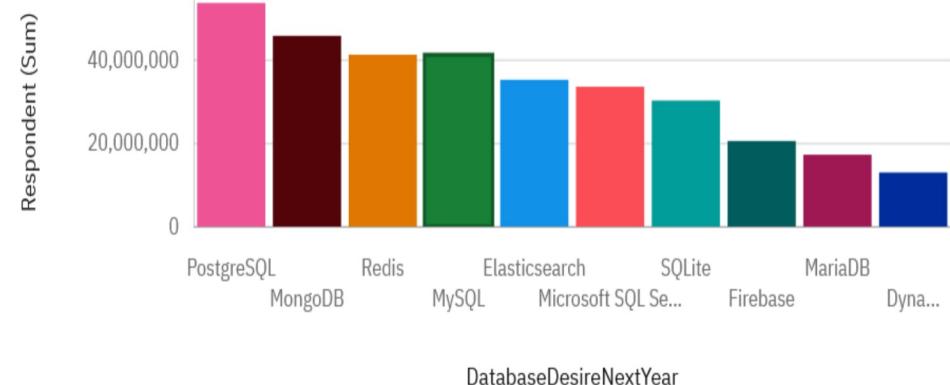
Current Year

Top 10 Database Worked With



Next Year

Top 10 Database Desire Next Year



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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Currently MySQL is the most popular followed by PostgreSQL & Microsoft SQL
- While next year MySQL moved to the 4th place. Replace by PostgreSQL
- MongoDB & Redis increase next year moved to top 2 & 3

Implications

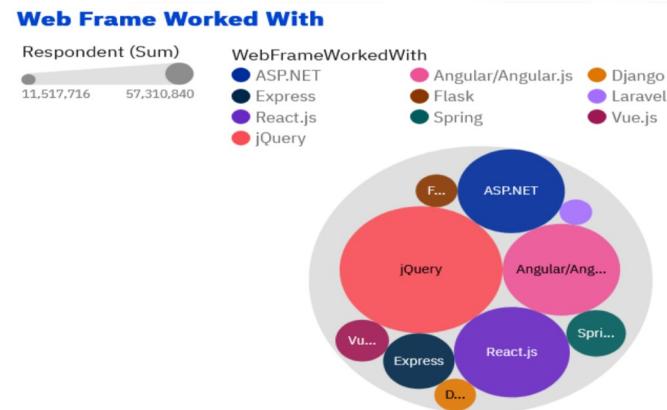
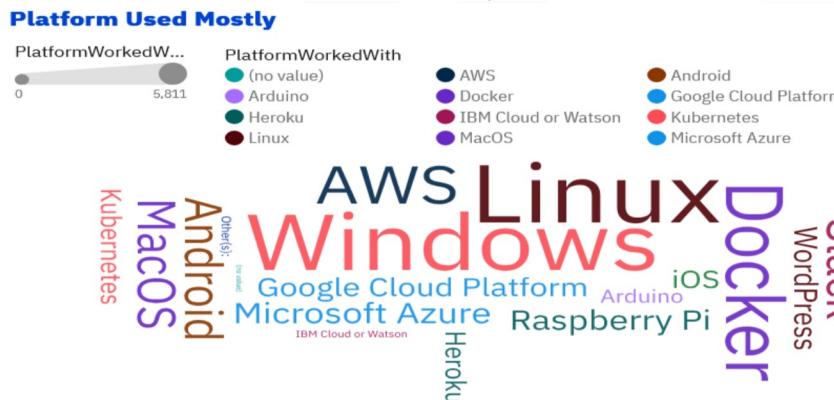
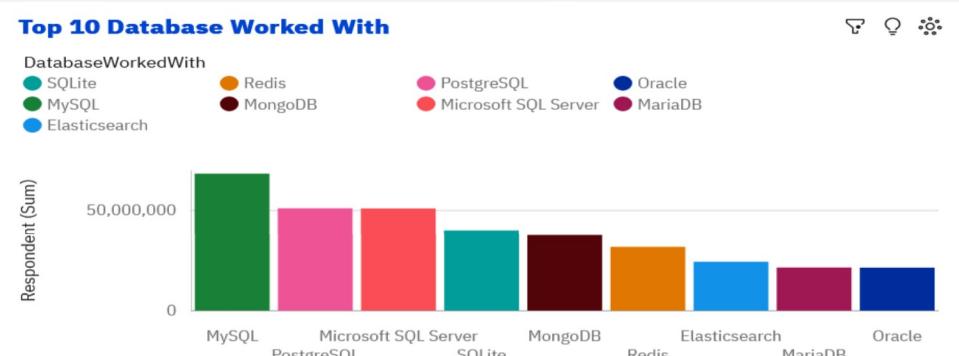
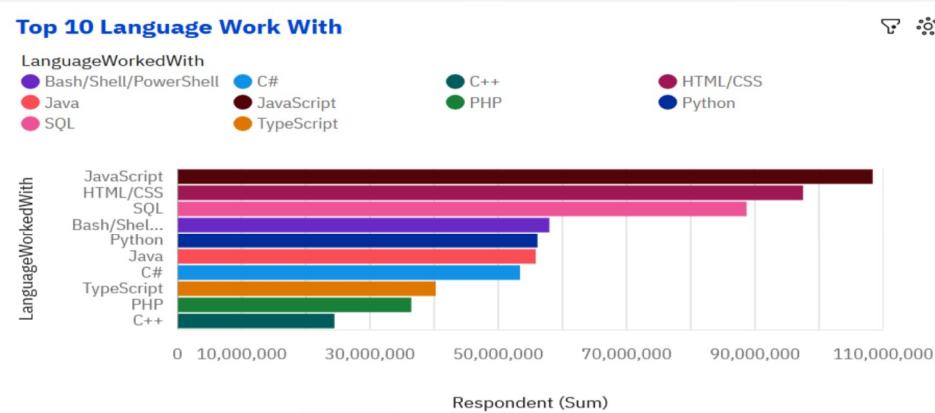
- The different SQL Databases are reduced in popularity in the coming year.
- Reason might be that you can use SQL Code for example in Python.
- Oracle seems to get less desired and next year leaving the top 10

DASHBOARD



<https://github.com/IJns46/IBM-Data-Analyst-Capstone-Project---Cognos-Dashboard---IJnskje>

DASHBOARD – Current Technology Usage

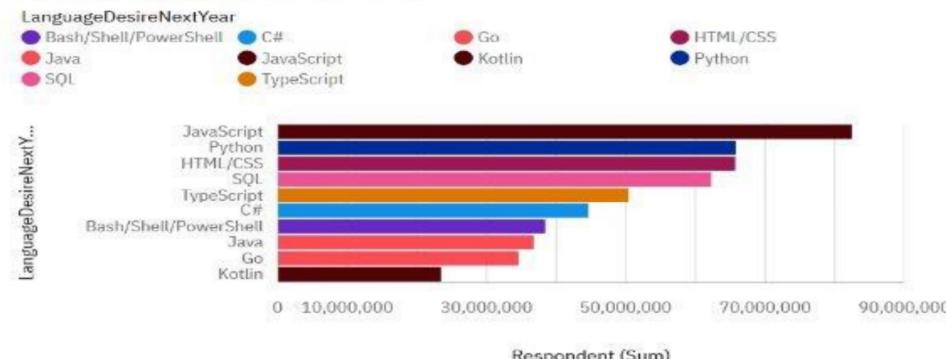


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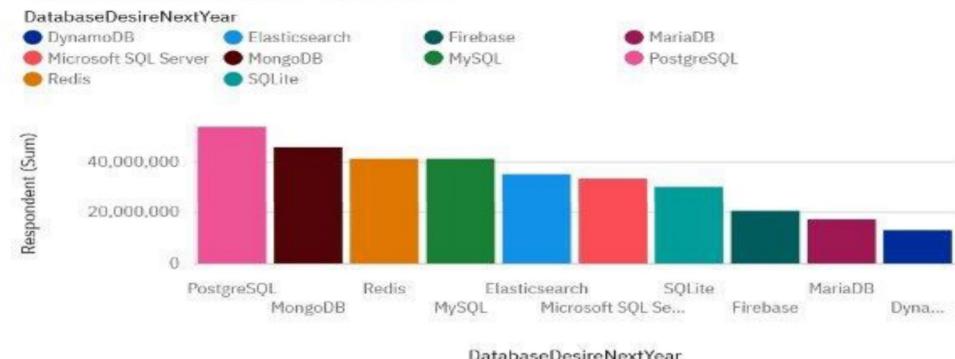
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DASHBOARD – Future Technology Trend

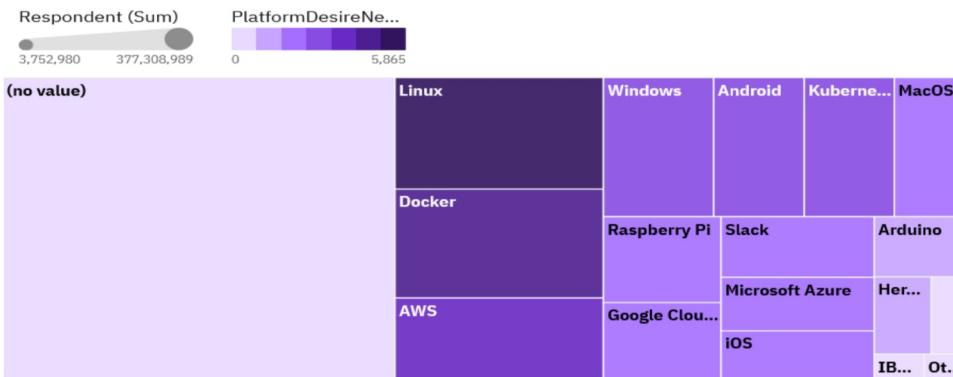
Top 10 Language Desire Next Year



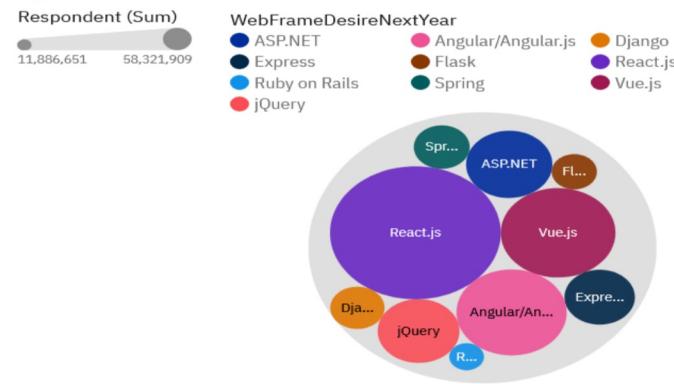
Top 10 Database Desire Next Year



Platform Desire Next Year



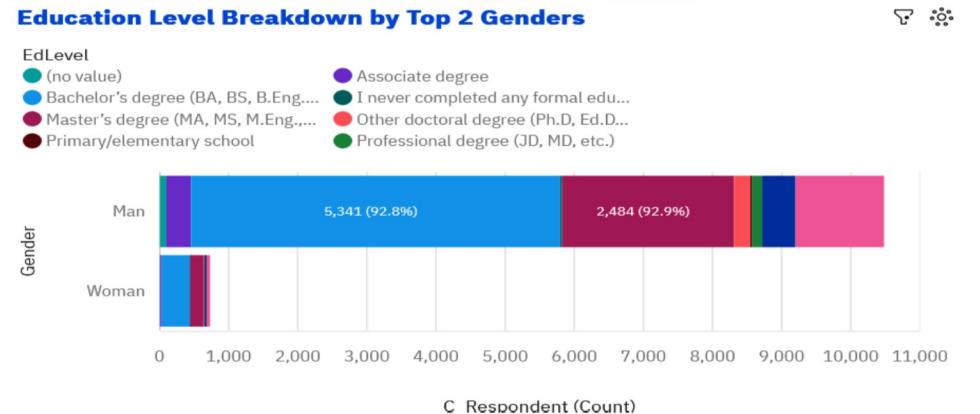
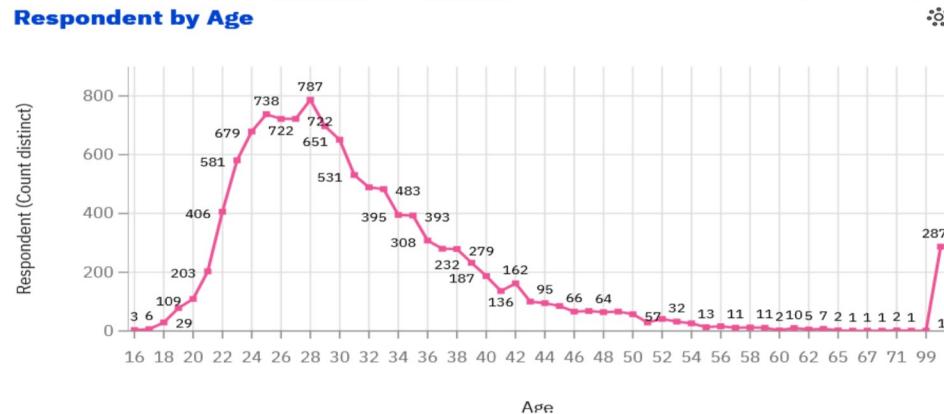
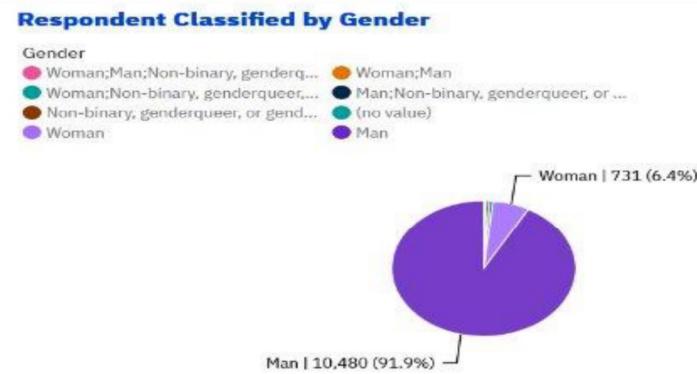
Top 10 Web Frame Desire Next Year



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DASHBOARD - Demographics



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DISCUSSION



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OVERALL FINDINGS & IMPLICATIONS

Findings

- While JavaScript/HTML are still very popular, other languages like Python, Typewriter are catching up.
- Only 6.4% are women compare to 91.9% man
- Biggest age group of Respondent are between 22 - 26

Implications

- AI Market is growing quick and need for specific Languages are needed and for companies to be flexible to stay on track
- More should be done to attract women into the tech world
- As more Databases could work across different languages, the main Language Database for example MySql & Microsoft SQL is getting less popular in next year, while the language is still in the top 5.

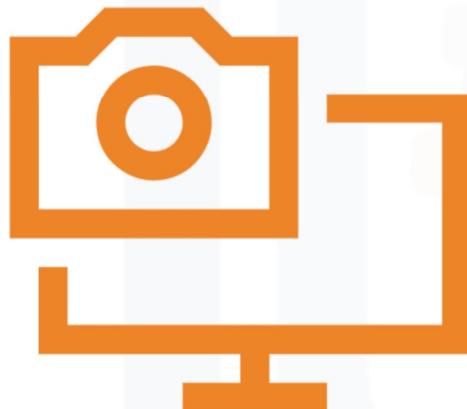
CONCLUSION



- Make Technology more accessible to learn the development in more countries
- Attract more women into Technology and Analytics
- More information could be gathered to see why certain language loses popularity while others are growing
- While higher education is still highly requested, there are many of the respondent with little education. Markets should keep this in mind. There are many people able to learn and do the job, but for various reason could not have the education. Ignoring this is losing out to potential talented people.

APPENDIX

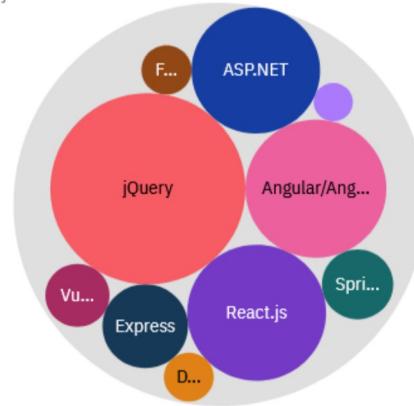
- See some Related charts in the following Slides



WebFrame usage Current vs Next Year

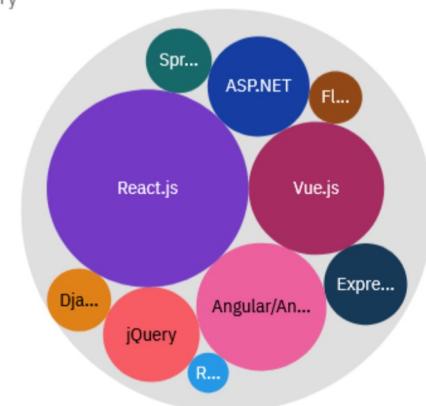
Current Year

Web Frame Worked With



Next Year

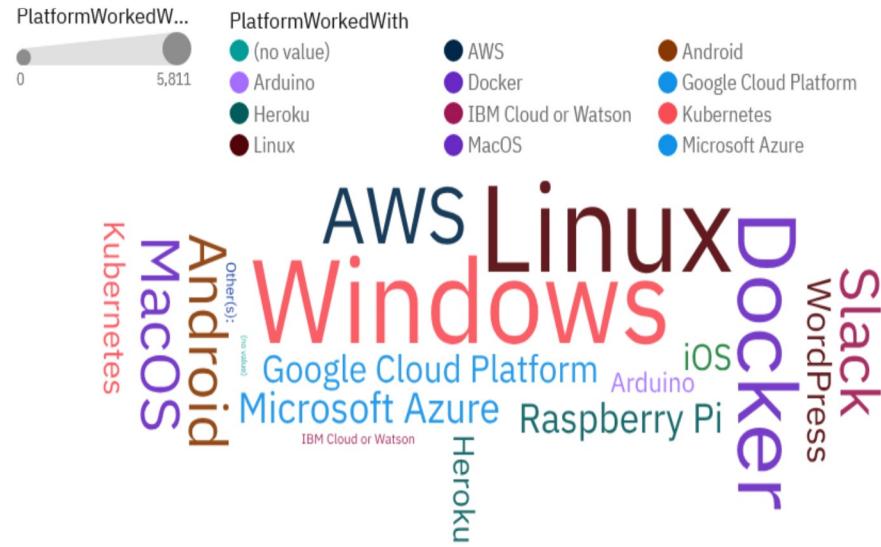
Top 10 Web Frame Desire Next Year



Platform usage Current vs Next Year

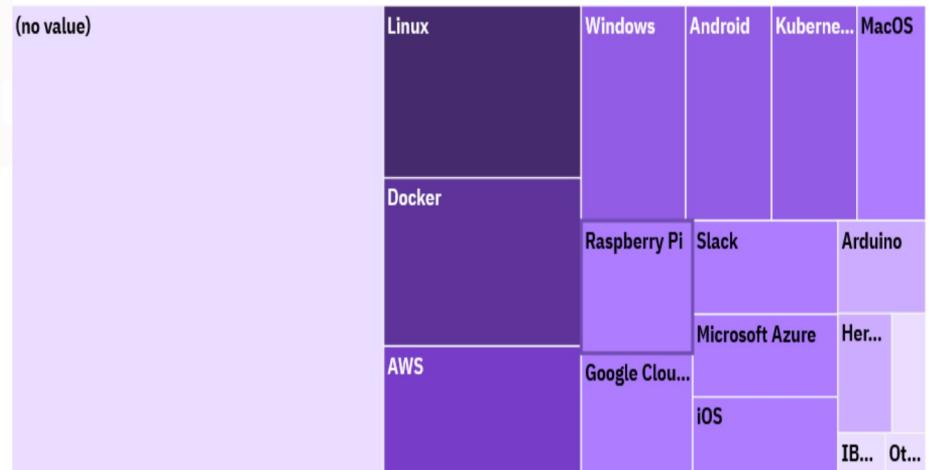
Current Year

Platform Used Mostly



Next Year

Platform Desire Next Year



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Platform & Webframe TRENDS - FINDINGS & IMPLICATIONS

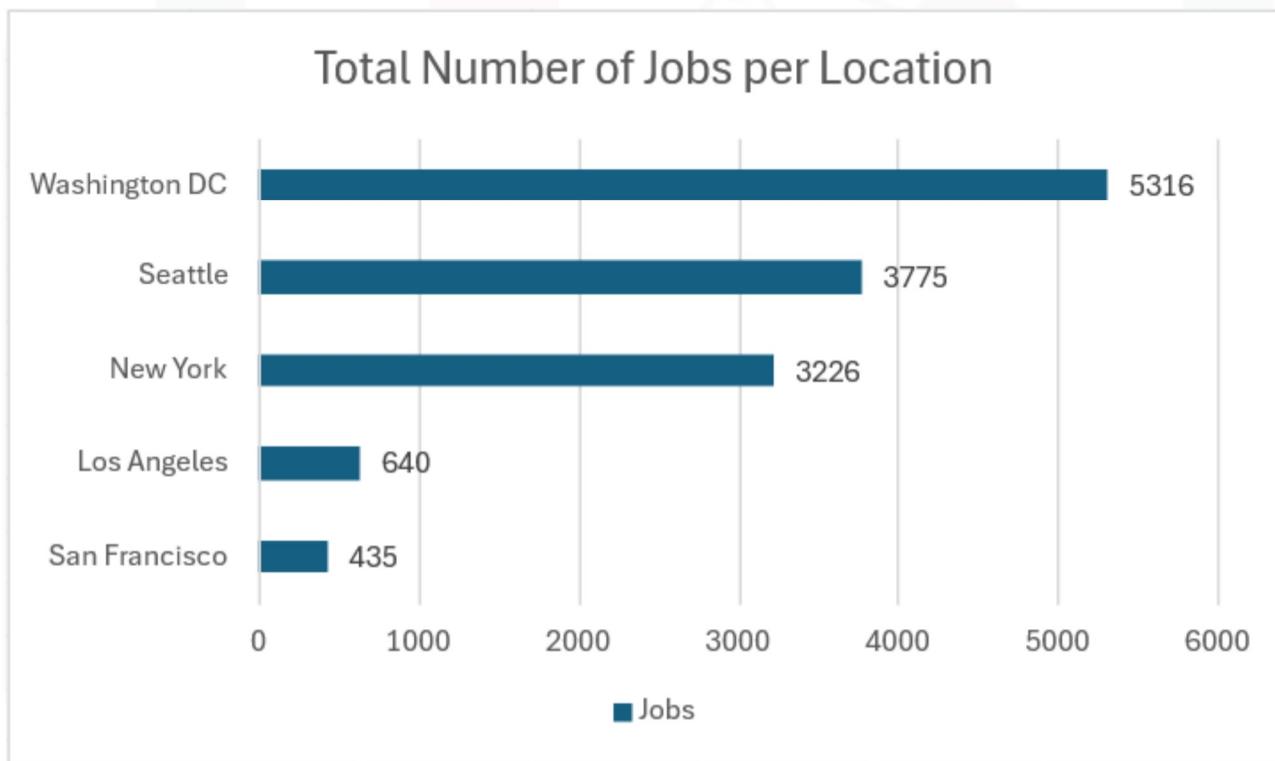
Findings

- While JQuery is the most popular Webframe, it reduces next year to the 5th place. And React.js takes the 1st place
- Regarding Platforms, Windows is still the most used on. In the current year almost, every respondent filled in the platform they uses, while next year, it was left empty by many. And Linux and Docker increase in popularity moving Windows from the 1st place

Implications

- While it seems, windows is losing popularity next year, it has to be kept in mind many Respondent left the field empty, indicating they have no desire to change, or have not made up their mind. This chart should be more a FYI for users and companies
- There is big shift next year with Jquery losing their 1st place in most used Webframe. It is something to keep in mind to do in future. Maybe another survey and analyses is needed here.

JOB POSTINGS



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POPULAR LANGUAGES



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Баярлалаа
спасибо faafetai lava
спасибі kiitos dankie
hvala koszönöm
enkosi
bedankt bayarlaa gracie
dziekuje sobodi dékui
obrigado mesi didi madoba sagoluñ
তোমাকে ধন্যবাদ
najis tuke kam sah hamnida
rahmat
감사합니다
danke 謝謝
mersi mersi barka welalin tack
vinaka blagodaram
dank je misaotra matondo
paldies grazzi
teşekkür ederim mahalo
tapadhi leat
хвала asante manana
obrigada murakoz
lenki
thank you gracias
chnorakaloulioun gralias ago gracies
sulpay
sukriya kop khun krap
ありがとう tanemirt rahmet grazie
terima kasih
diolch dhanyavadagalu
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