



EMERGING TREND IN GLOBAL TECHNOLOGIES

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EXECUTIVE SUMMARY



- This study focuses on a survey of software developers from various countries regarding future trends in the new technologies.
- It focused on the analysis of a database provided by Stack Overflow.
- The key findings show that C# is losing popularity to JavaScript and Python among programming languages while SQL is expected to remain steady.
- In term of databases, Microsoft SQL and MySQL are loosing ground to PostgreSQL, MongoDB, and Redis. Surprisingly, Oracle won't be in the Top 10 anymore.

INTRODUCTION



- This document analyzes the upcoming trends in the new technologies as predicted by software developers for the future years.
- In this context, we have crafted visuals illustrating the landscape of the emerging technologies.
- We have developed concise visuals for the upcoming years to provide insights into the technological advancement.
- This also allows us to derive implications regarding the strategies to be adopted by different stakeholders within the ecosystems.

METHODOLOGY



- We utilized a database supplied by Stack Overflow.
- Software developers from all continents and numerous countries worldwide were the target.
- Selected developers responded through 5 communication channels: on-site messaging, blog articles, distribution sites, meta messages, banner ads and social media posts.
- In our analysis, we used IBM Cognos Analytics interactive visualization and graphs.

RESULTS

- Based on observations from key findings analysis, JavaScript and Python are gaining popularity among programming languages, while SQL remain stable.
- PostgreSQL, MongoDB, and Redis are surpassing Microsoft SQL and MySQL. Notably, Oracle will no longer be in the Top 10.
- Linux and Docker are set to replace Windows next few years, while AWS will maintain its current position.
- ASP.net and jQuery will have smaller share in the web frameworks, with React.js leading and Vue.js following closely.
- 93.5% of the respondents are male, showing a predominant gender distribution.
- Observation shows that the majorities of the responses are from the 24-30 age group, and most respondents have a master's or bachelor's degree.

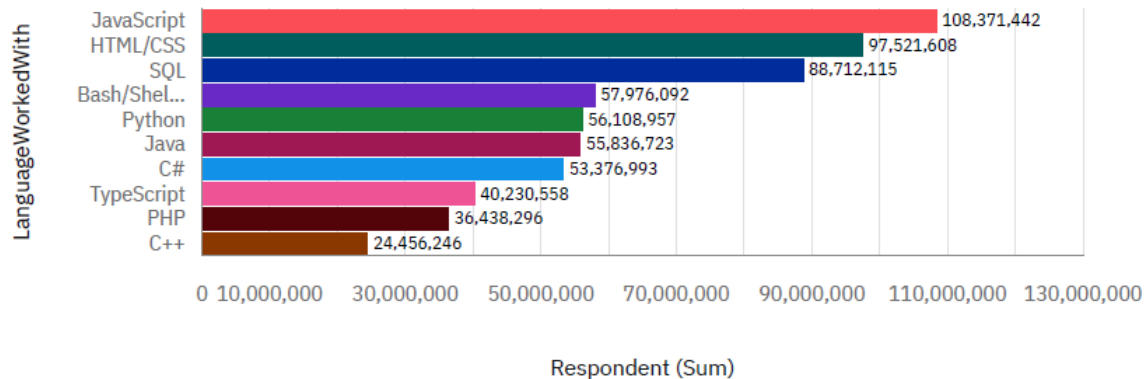
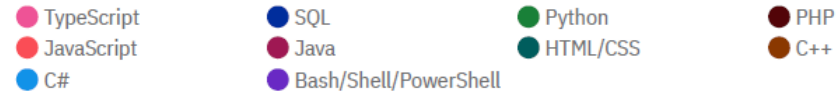
PROGRAMMING LANGUAGE TRENDS

Current Year

Current Technology Usage

Top 10 LanguageWorkedWith

LanguageWorkedWith

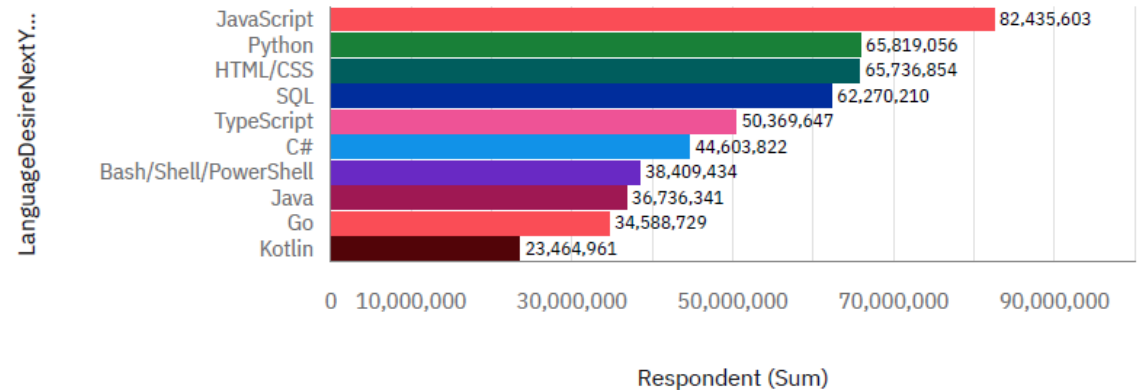


Next Year

Future Technology Trend

Top 10 LanguageDesireNextYear

LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

Finding 1

- At this time, JavaScript and Python are in great position towards the future.

Finding 2

- C# and Typescript are declining due to the ascension of JavaScript and Python.

Finding 3

- SQL will still maintain its position.

Implications

Implication 1

- Professional that willing to change career will need to consider to be train on JavaScript, Python and SQL accordingly.

Implication 2

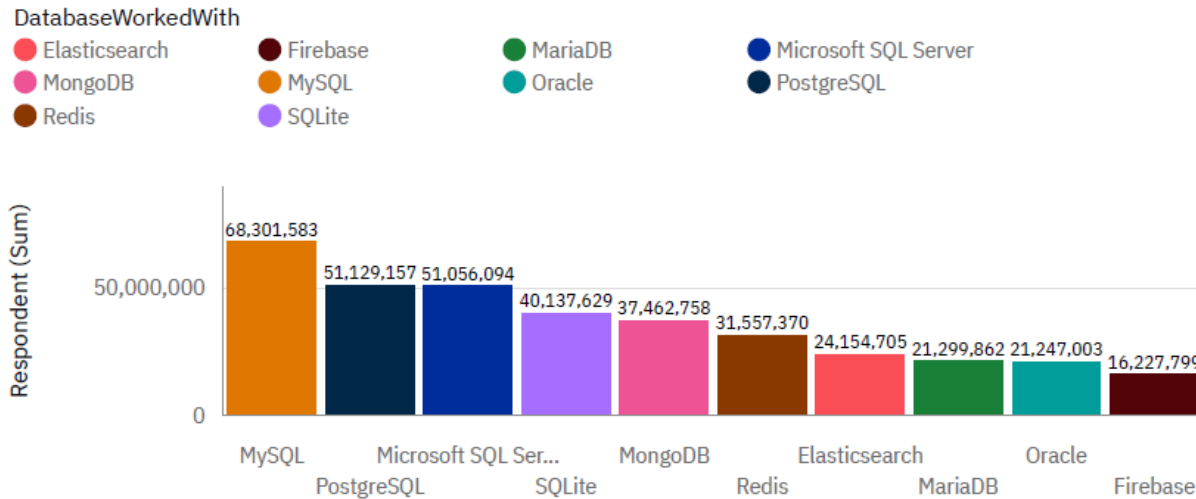
- It would be more beneficial for companies who want to anticipate and invest on systems build on those 3 languages for the future.

Implication 3

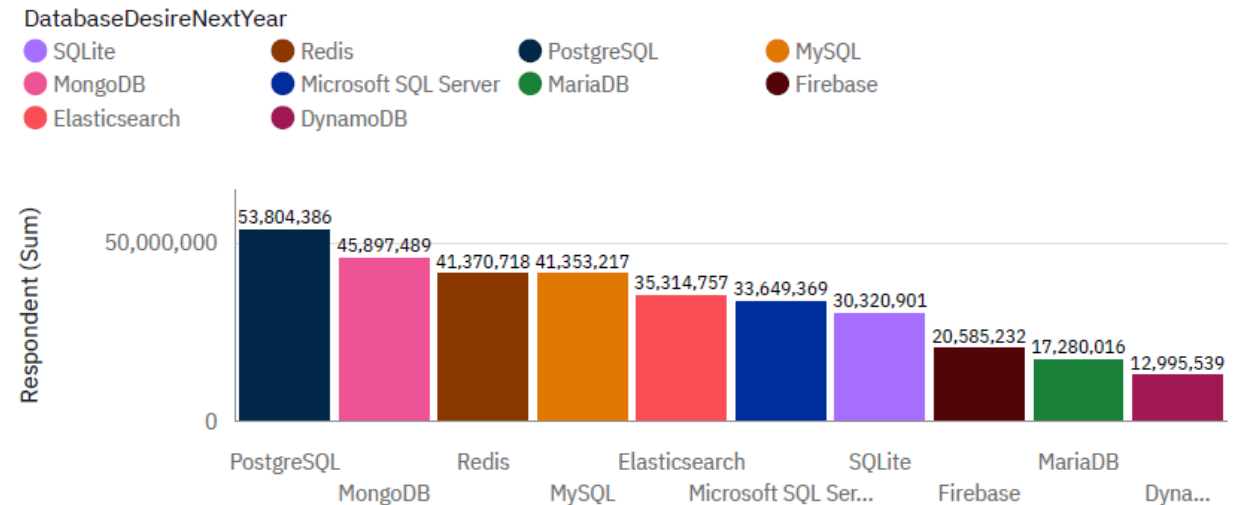
- Schools and training platforms would also need to adapts their contents and curriculum accordingly.

DATABASE TRENDS

Top 10 DatabaseWorkedWith



Top 10 DatabaseDesireNextYear



DatabaseWorkedWith

DatabaseDesireNextYear

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

Finding 1

- Microsoft SQL and MySQL are losing their position.

Finding 2

- PostgreSQL, MongoDB and Redis will be highly on demand.

Finding 3

- Oracle will no longer be on the Top 10..

Implications

Implication 1

- Professionals that are willing to change career will need to consider to be trained on PostgreSQL, MongoDB and Redis accordingly.

Implication 2

- It would be more beneficial for companies who want to anticipate and invest on these 3 DB systems for the future.

Implication 3

- Schools and training platforms would also need to adapt their contents and curriculum accordingly.

DASHBOARD



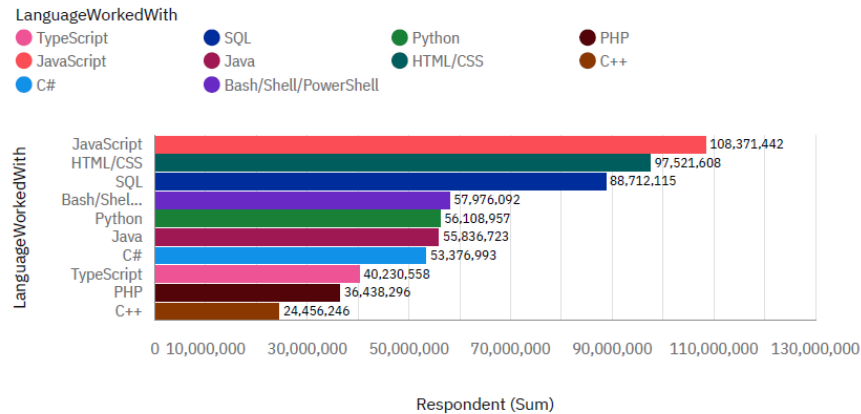
<https://github.com/jpavilus/jpavilus/blob/main/New%20dashboardPart%20A%20-%20Building%20A%20Dashboard%20With%20IBM%20Cognos%20Analytics1.pdf>.

https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FNew%2BdashboardPart%2BA%2B-%2BBuilding%2BA%2BDashboard%2BWith%2BIBM%2BCognos%2BAnalytics&action=view&mode=dashboard&subView=model000001905a2ed047_00000000

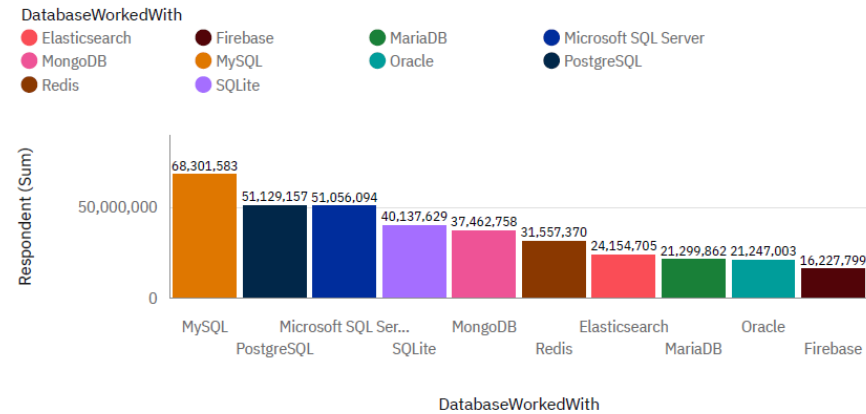
DASHBOARD TAB 1

Current Technology Usage

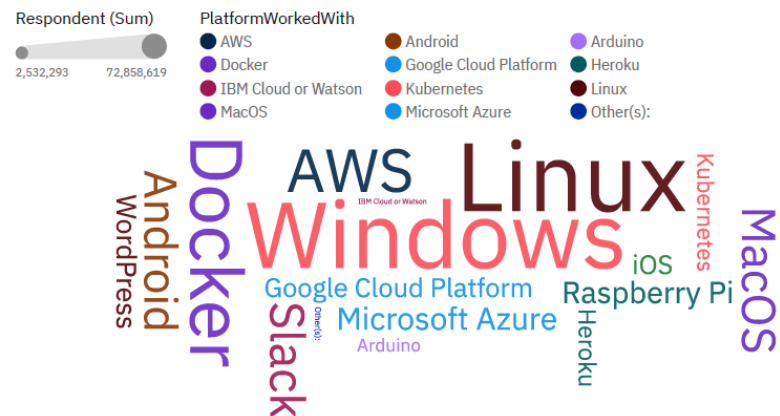
Top 10 LanguageWorkedWith



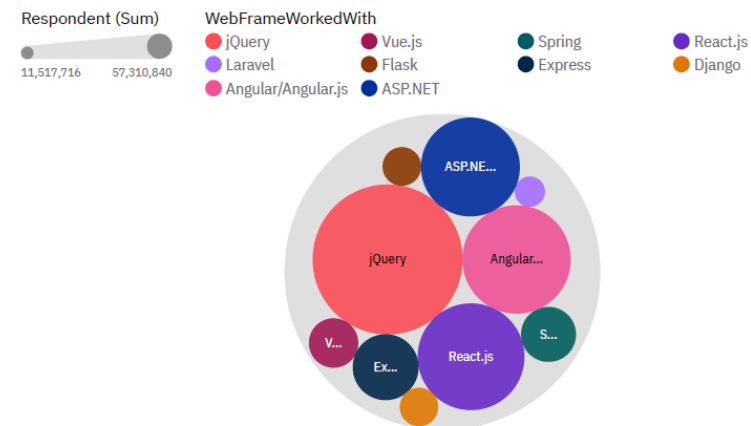
Top 10 DatabaseWorkedWith



PlatformWorkedWith



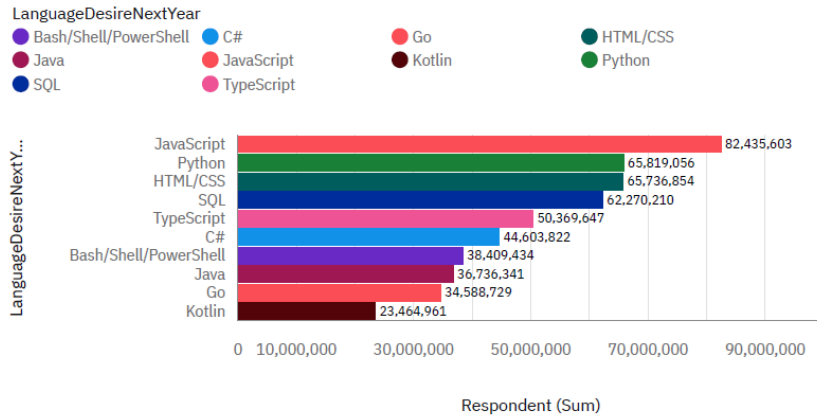
Top 10 WebFrameWorkedWith



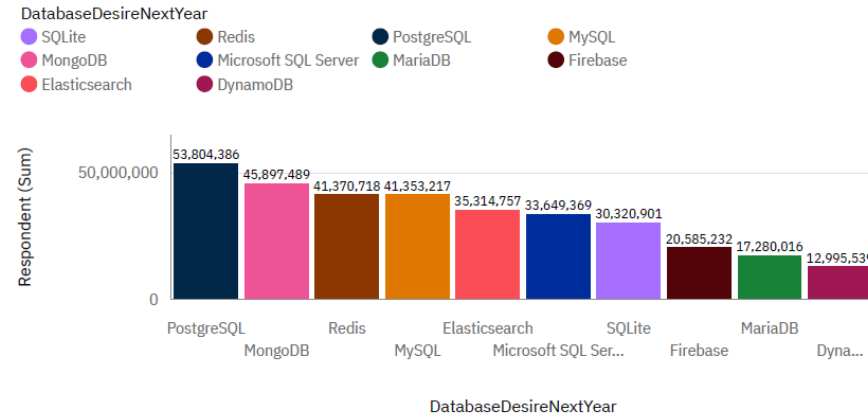
DASHBOARD TAB 2

Future Technology Trend

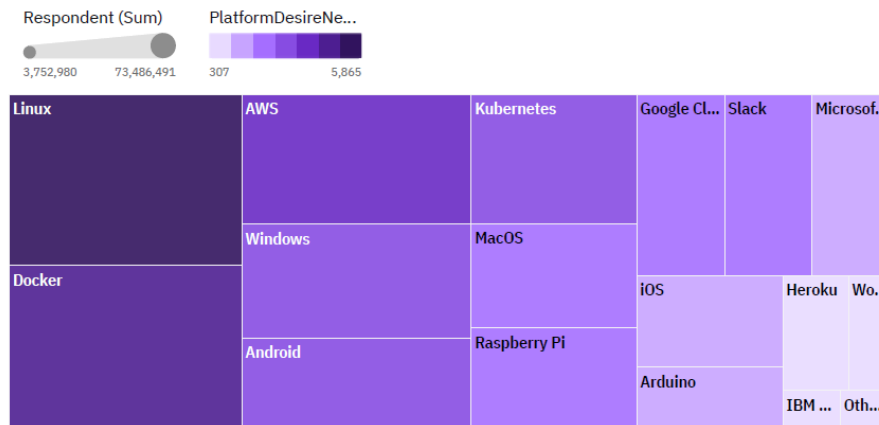
Top 10 LanguageDesireNextYear



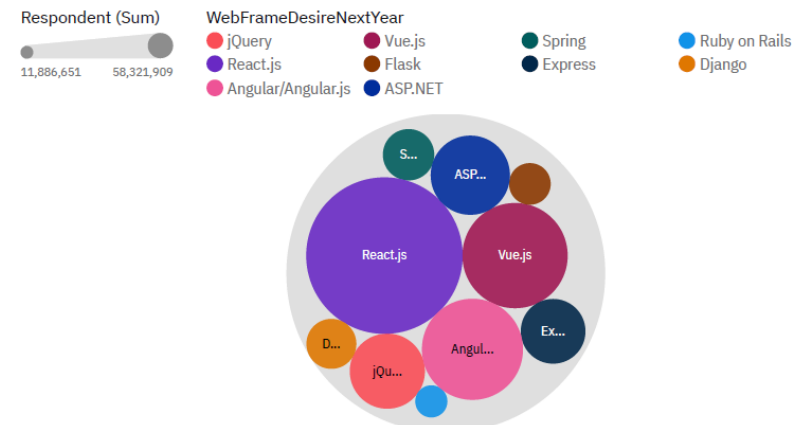
Top 10 DatabaseDesireNextYear



PlatformDesireNextYear



Top 10 WebFrameDesireNextYear

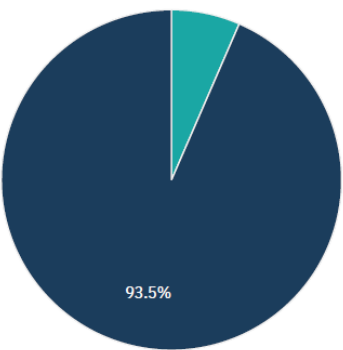


DASHBOARD TAB 3

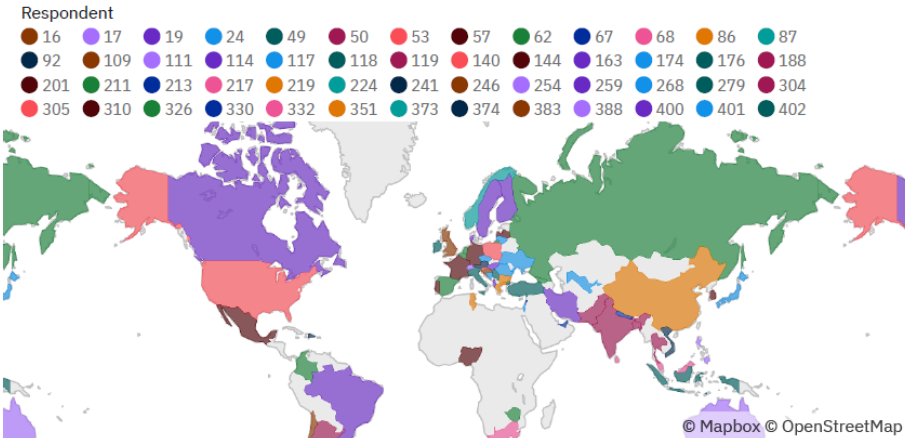
Demographics

Respondent classified by Gender

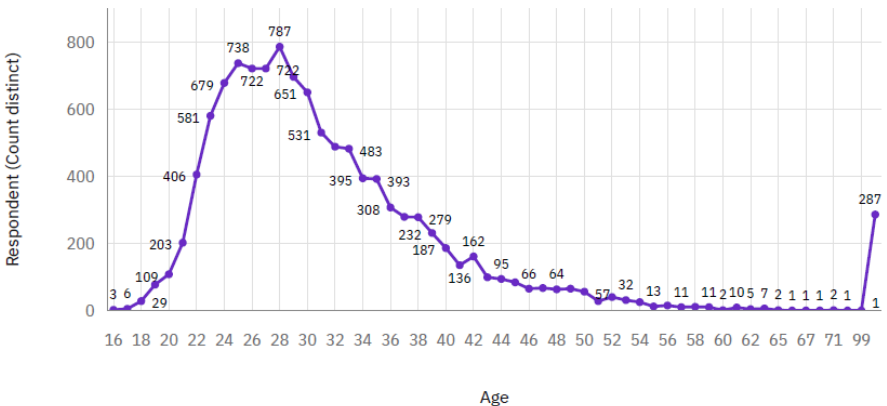
Gender
● Woman ● Man



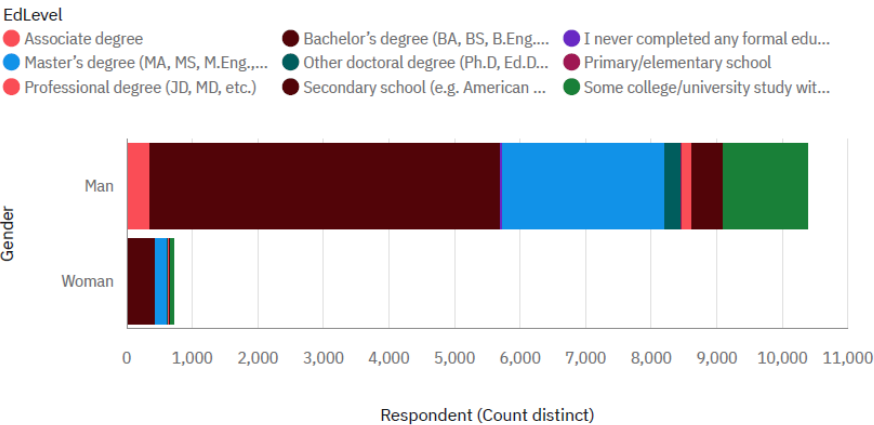
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



- Paid options like Windows and Oracle are less popular compared to open sources technologies which are free, reliable and customizable.
- By consistently introducing innovative services and features, AWS is expected to maintain its leadership position, attracting new customers and ensuring the loyalty of existing ones.
- Government authorities, including parliament, should establish policies and incentives to promote and support women's participation in emerging technologies.
- We notice that those with higher education levels are most involved in the new technologies. Policymakers should create incentives to change this. It might also be important to encourage children and young people to get involved through education, mentorship and accessible resources.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Open source technologies develop and spread very quickly.
- Women's lack of implication in new technologies evolution is a concern that need to be addressed.

Implications

- With open source accession and support, the new technologies becomes more accessible and available for everyone with no age and class limit.
- With women massive involvement, the new technologie industry will develop way faster.

CONCLUSION



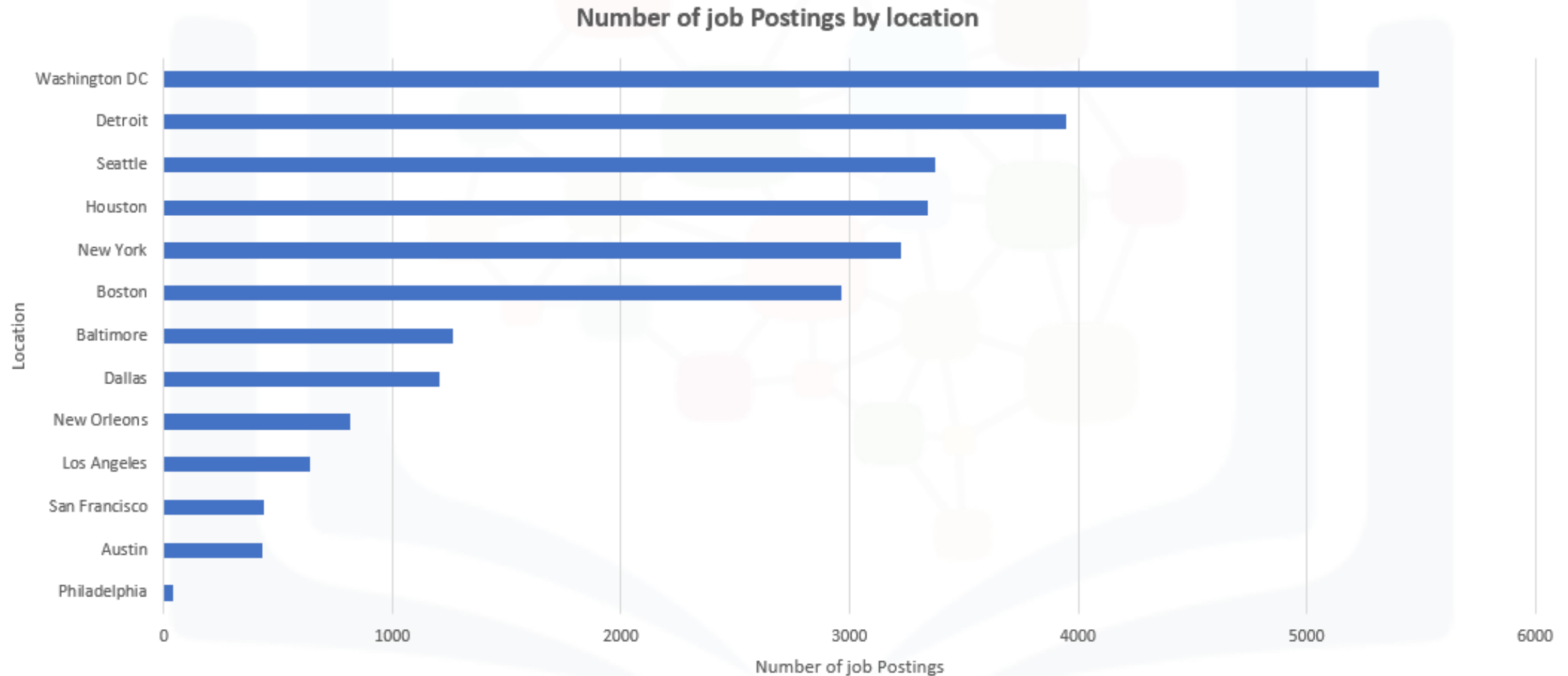
- In conclusion, technology is advancing positively with a faster speeds, open infrastructures and reduced cost.
- Programing languages and databased systems evolution is constantly moving at the speed of light and bring hope to the future.
- Promoting women's participation in these new technologies requires urgent government investment in technology literacy.
- Taking appropriate actions based on their needs is facilitated by these types of studies.

APPENDIX



- Include any relevant additional charts, or tables that you may have created during the analysis phase.

JOB POSTINGS



POPULAR LANGUAGES

