

Technology Trends vs Current Future

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OUTLINE



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- Methodology
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- Discussion
 - Findings & Implications
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EXECUTIVE SUMMARY



- Trends in programming languages and databases
- Demographics survey
- Technological gap in countries
- Gender gap in jobs

INTRODUCTION



- About: Analyzing the trends in software development
- Purpose:
 - Identify skill requirements for future
 - What are the top programming languages in demand?
 - What are the top database skills in demand?
 - What are the popular IDEs?
- Audience: Human Resource and IT Head

METHODOLOGY



- Data Collection Sources
 - Stack Overflow Developer 2019 Survey
 - GitHub Job Postings
 - Programming Languages Annual Salary
- Data Exploration
- Data Cleaning
- Data Visualization
- Presentation

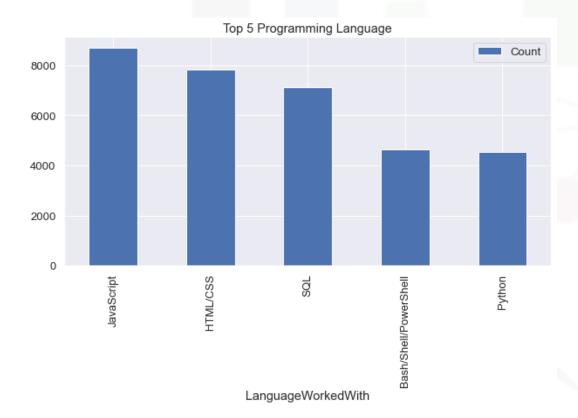
RESULTS

Results are based on this table:

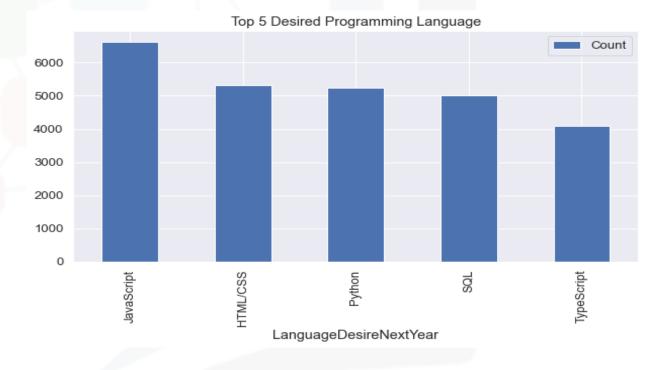
	Respondent	LanguageWorkedWith	LanguageDesireNextYear	DatabaseWorkedWith	DatabaseDesireNextYear	PlatformWorkedWith
0	4	С	С	MySQL	MySQL	Linux
1	4	C++	C#	SQLite	SQLite	Windows
2	4	C#	JavaScript	NaN	NaN	NaN
3	4	Python	SQL	NaN	NaN	NaN
4	4	SQL	NaN	NaN	NaN	NaN
74584	25142	Go	Python	NaN	NaN	NaN
74585	25142	HTML/CSS	R	NaN	NaN	NaN
74586	25142	PHP	NaN	NaN	NaN	NaN
74587	25142	Python	NaN	NaN	NaN	NaN
74588	25142	R	NaN	NaN	NaN	NaN

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year





PROGRAMMING LANGUAGE TRENDS - FINDINGS & **IMPLICATIONS**

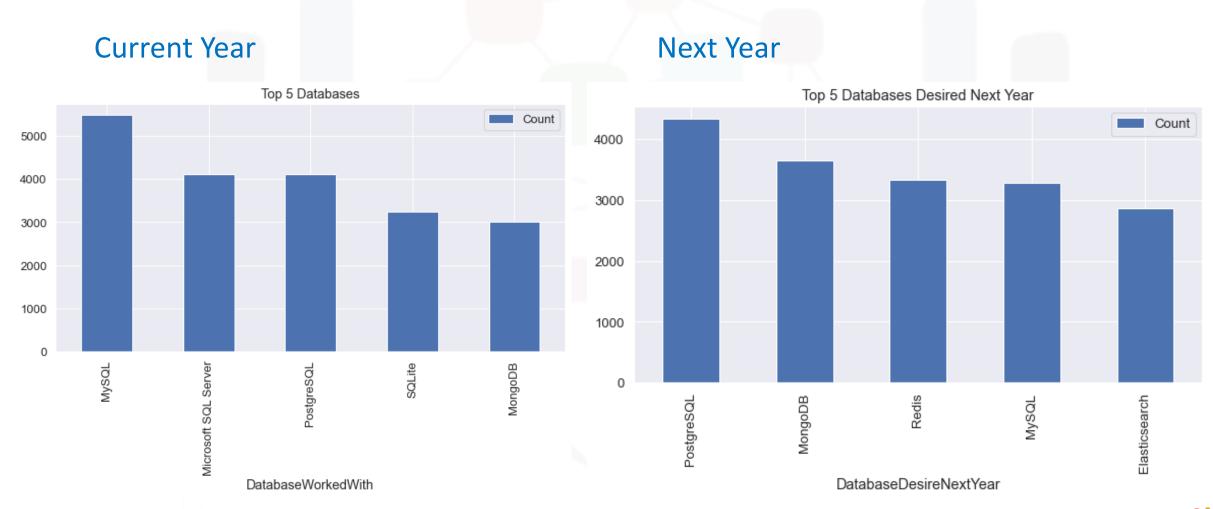
Findings

- JavaScript, HTML/CSS, SQL are top 3 this year
- Python and Typescript becoming popular next year
- PowerShell edged out in next year

Implications

- Web development are still in high demand
- Big Data technology in companies still requires SQL
- With Al and ML in rising demand, Python is best choice

DATABASE TRENDS



IBM Devcloper

SKILLS NETWORK

DATABASE TRENDS - FINDINGS & **IMPLICATIONS**

Findings

- MySQL most popular
- Behind is Microsoft SQL
- MongoDB and Redis are upcoming favorites
- New kid on the block: Elasticsearch

Implications

- Open-source databases are still preferable in companies
- NoSQL databases will make an impact for storing non-relational data
- Redis supports abstract data types
- Pre-tuned search to website, app, or ecommerce store

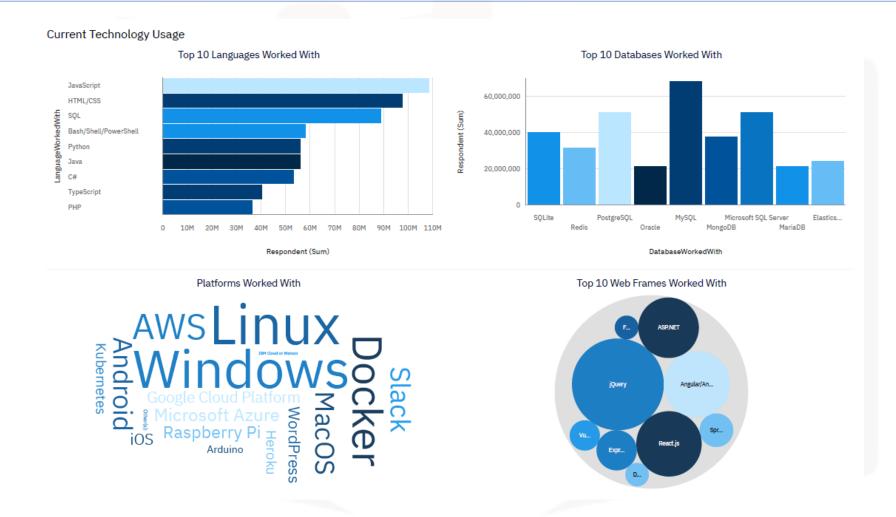
DASHBOARD



IBM COGNOS LINK DASHBOARD

https://dataplatform.cloud.ibm.com/dashboards/29b1538f-c54b-4007-9a5d-f1d3248a4308/view/783cfd0d2cef00c 56cb1f2e407907f017b622d5ab7bbd70 6d3867b490a662797a96f40c5c8794b5 fd9130060fae41a0b9c

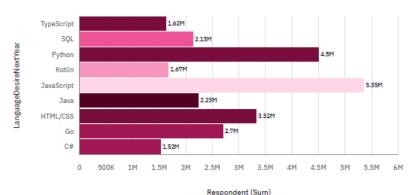
CURRENT TECHNOLOGY USAGE DASHBOARD



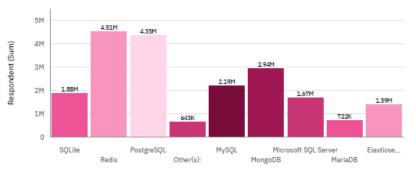
FUTURE TECHNOLOGY TREND DASHBOARD

Future Technology trend

Top 10 Languages Desired Next Year

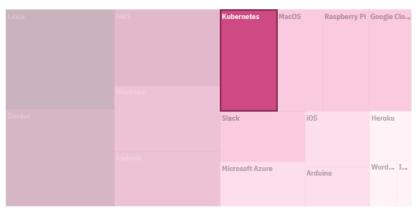


Top 10 Databases Desired Next Year

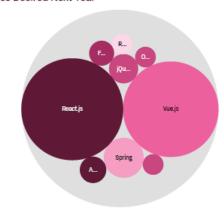


DatabaseDesireNextYear

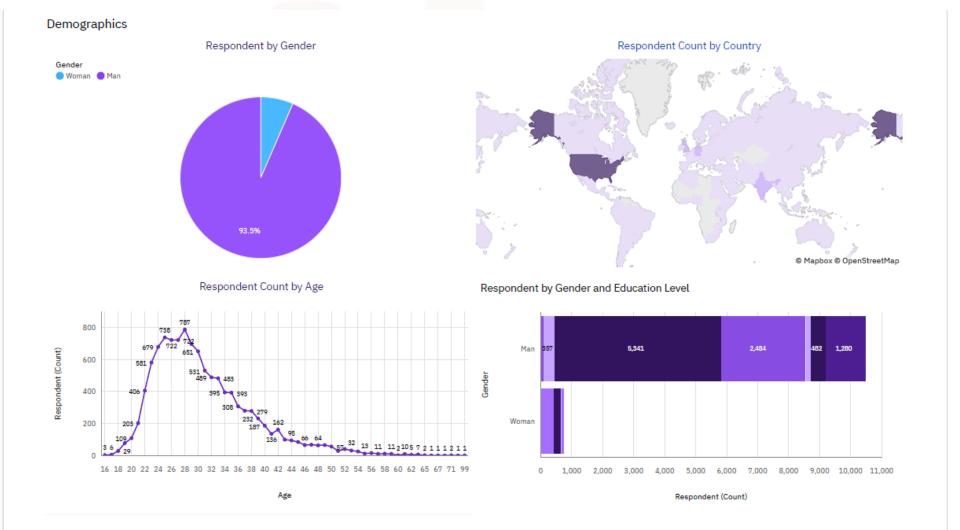
Platforms Desired Next Year



Top 10 WebFrames Desired Next Year



DEMOGRAPHICS DASHBOARD



DISCUSSION



- Technology Trends now and future
- Training and Reskilling workers
- Females participation in Technology field
- Bridge divide of technology gaps in developing countries
- Eliminate age and education discrimination in employment

OVERALL FINDINGS & IMPLICATIONS

Findings

- Fast changing technology every year
- Concentration on several countries like USA and India
- Gender gap in technology jobs
- Platforms like Docker and AWS are growing

Implications

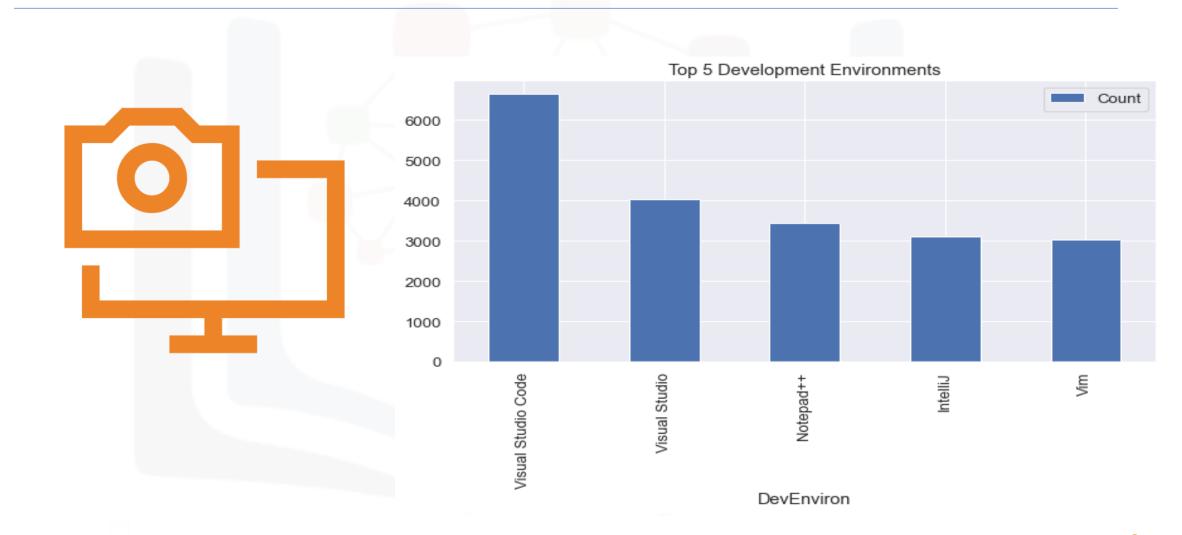
- Companies need to be flexible and adjust to rapid changes
- Need to spread technology out to lagging countries
- Impact of job hiring's
- Shift to faster app deployments and cloud services in future

CONCLUSION

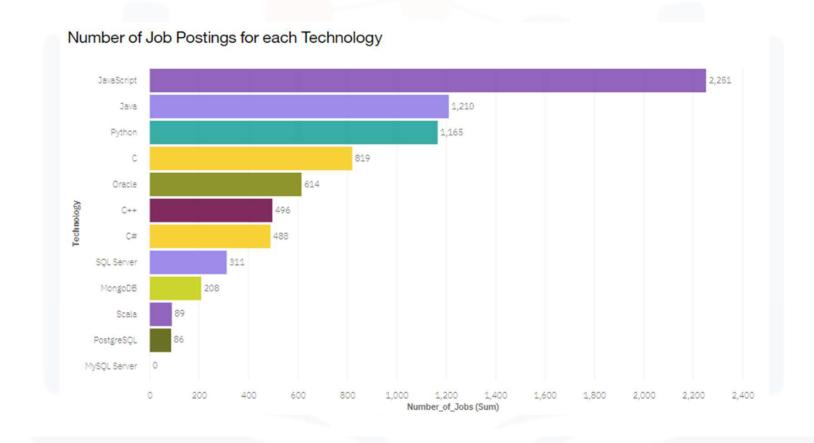


- Technology Trends for current and next year
- Programming Languages, Database and Platform overview
- Demographics overview
- Actions to be taken
- In future, incorporate Machine Learning to predict trends and salaries

APPENDIX



GITHUB JOB **POSTINGS**



POPULAR LANGUAGES BY SALARY

