



2019 Stack Overflow Developer Survey Results

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OUTLINE



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

EXECUTIVE SUMMARY



- Data contextualization and analysis goal
- Methodology description
 - Data gathering
 - Data analysis
 - Data visualization
- Results of findings supposed by visual graphs and trends
- Discussion of overall findings & implications
- Point5

INTRODUCTION



- Stack Overflow's annual Developer is one of the largest developer survey in the world with nearly 90,000 respondents.
- Results does not represent all developer within the community.
- Trends to predict the shift in technologies tools.

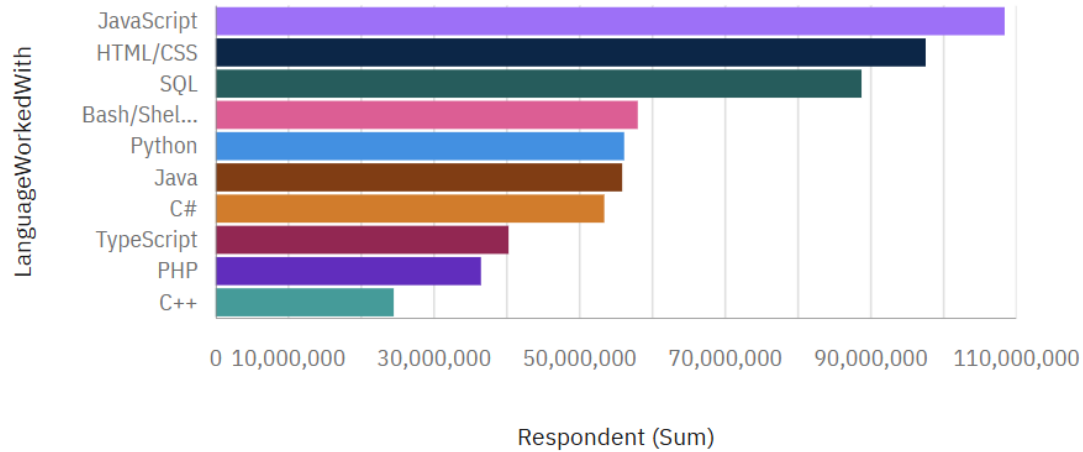
METHODOLOGY



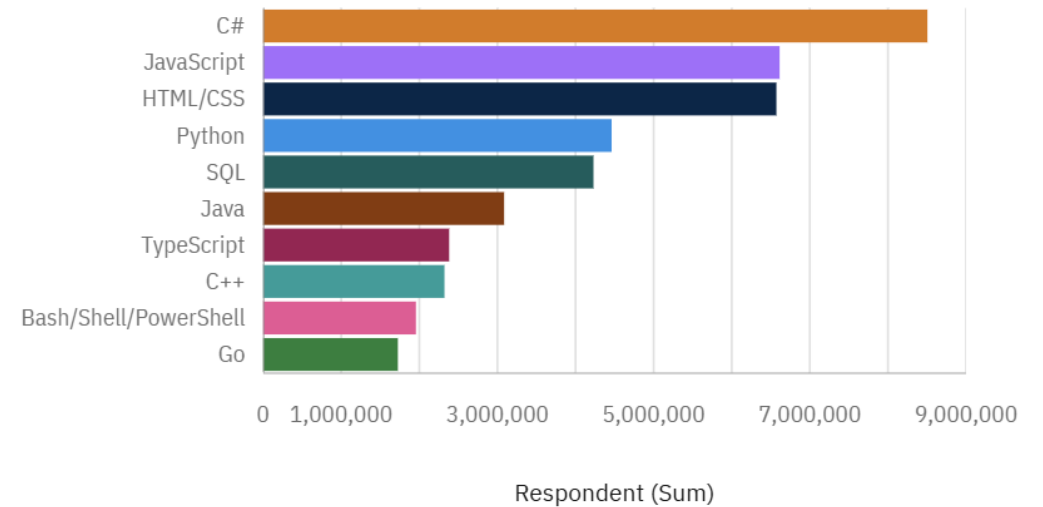
- Data Collection
 - Web Scraping
 - APIs
 - Request Library
- Data Wrangling
- Exploratory Data Analysis
 - Analyzing data distributions
 - Handling outliers
 - Finding Correlations
- Data Visualization
- Dashboards

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

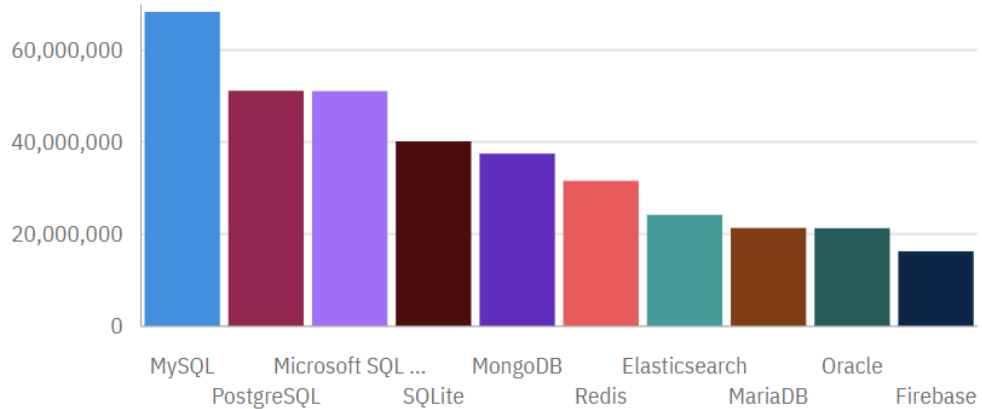
- C# will overtake JavaScript as a leading language
- Usage of JavaScript, HTML&CSS drops

Implications

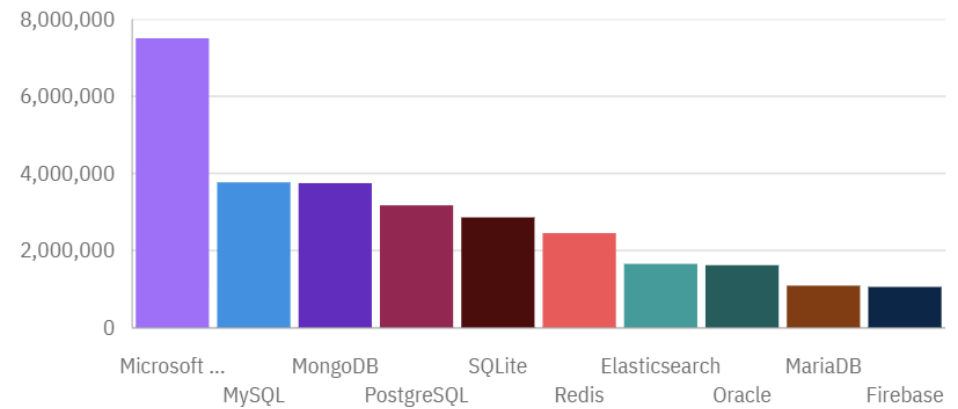
- Usage of SQL decreases

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL usage will decrease
- MongoDB usage will increase

Implications

- Developer seems to be migrating to Microsoft SQL

DASHBOARD

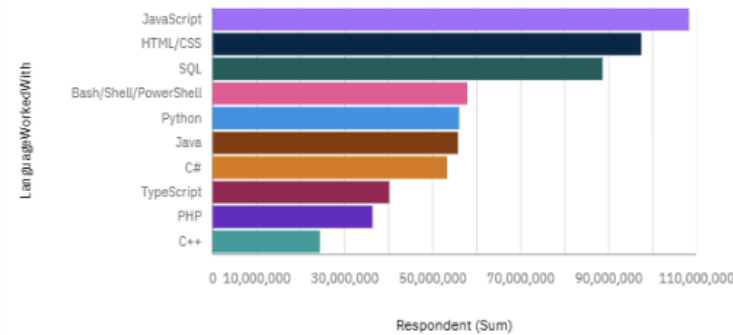


https://github.com/DebuggingMyLife/IBM-Data-Analyst-Capstone-Project/blob/main/Peer-Graded%20Assignment_%20Part%20A%20-%20Building%20a%20dashboard%20with%20IBM%20Cognos%20Analytics.pdf

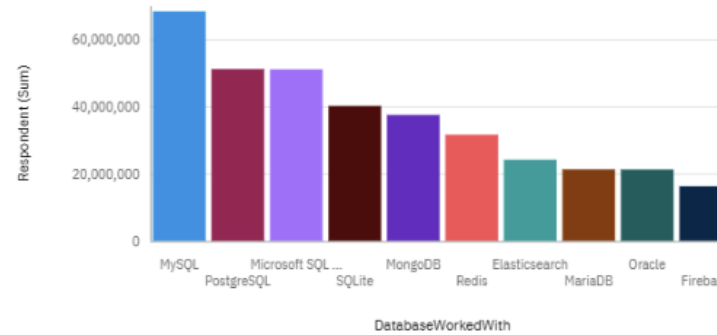
CURRENT TECHNOLOGY USAGE

Current Technology Usage

Respondent by LanguageWorkedWith colored by LanguageWorkedWith



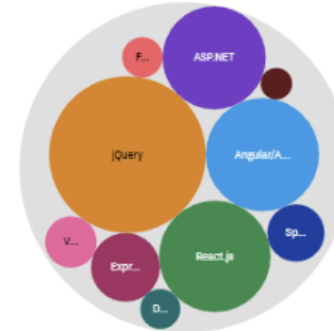
Respondent, DatabaseWorkedWith



PlatformWorkedWith sized by Respondent



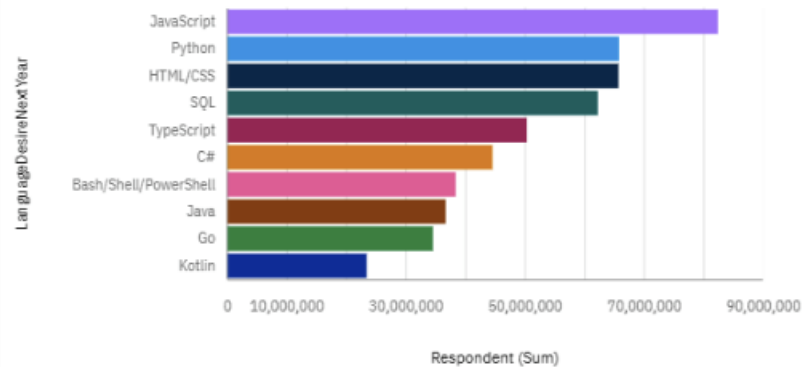
WebFrameWorkedWith hierarchy colored by WebFrameWorkedWith and sized by Respondent



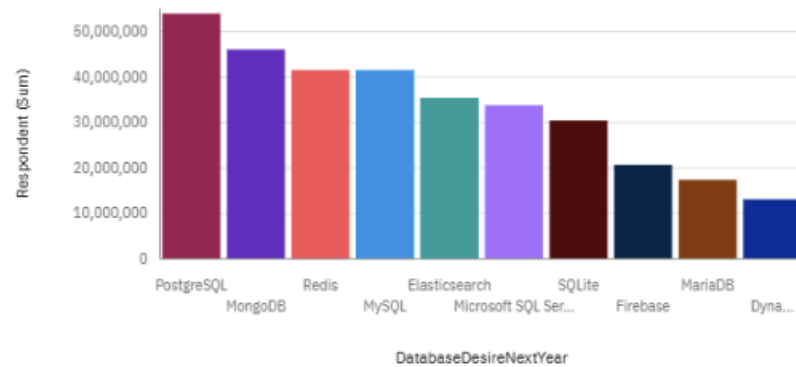
FUTURE TECHNOLOGY TREND

Future Technology Trend

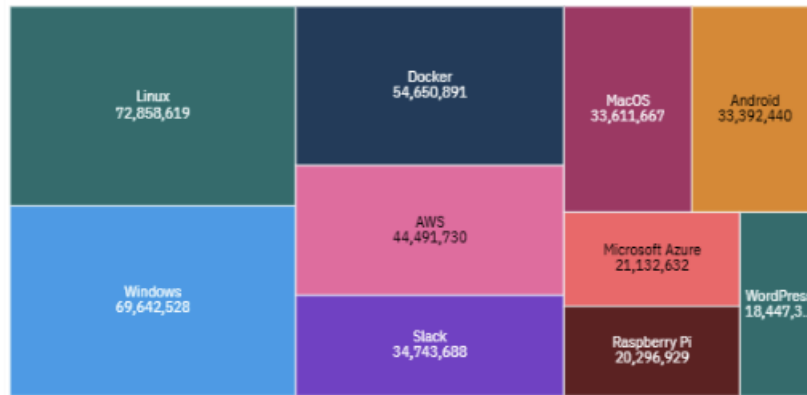
Respondent, LanguageDesireNextYear



Respondent, DatabaseDesireNextYear



Respondent for PlatformWorkedWith hierarchy



WebFrameDesireNextYear hierarchy colored by WebFrameDesireNextYear and sized by Respondent

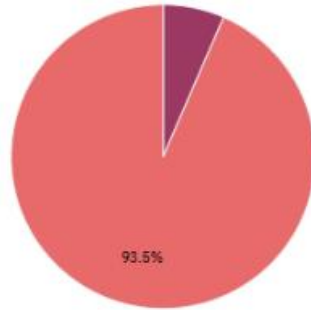


GLOBAL DEMOGRAPHICS

Demographics

Respondent by Gender

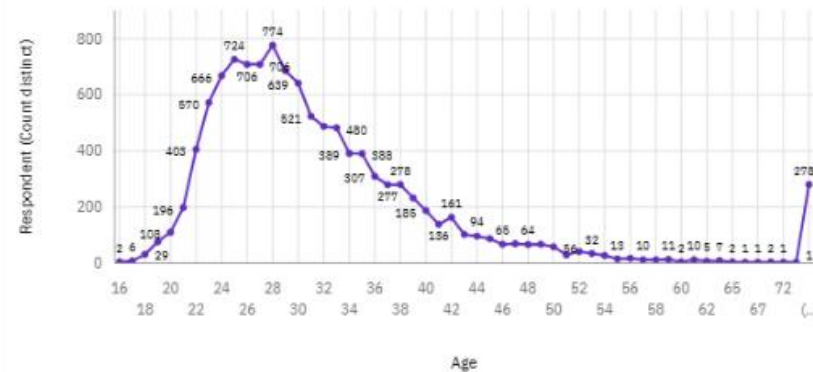
Gender
● Woman ● Man



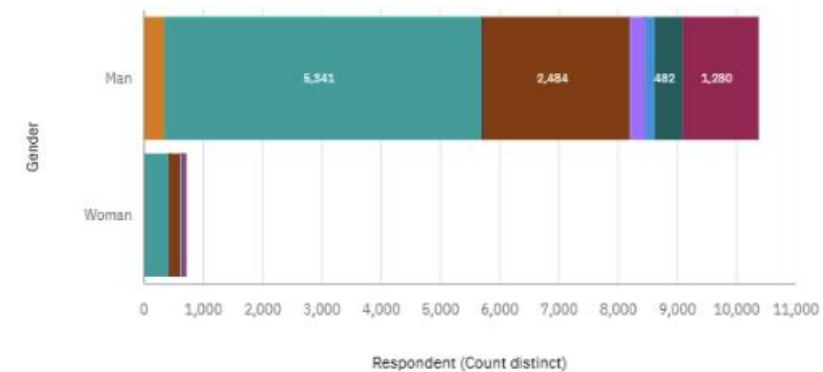
Respondent for Country regions



Respondent by Age



Respondent by Gender colored by EdLevel



DISCUSSION



https://ap1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FPeer-Graded%2BAssignment%253A%2BPart%2BA%2B-%2BBuilding%2Ba%2Bdashboard%2Bwith%2BIBM%2BCognos%2BAnalytics&action=view&mode=dashboard&subView=model00000193547cee82_00000000

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript are widely used and C# is getting popular
- Over 93% are male developer in their 20s
- Developer are mostly located in developer countries (USA, Canada, Australia, etc.)

Implications

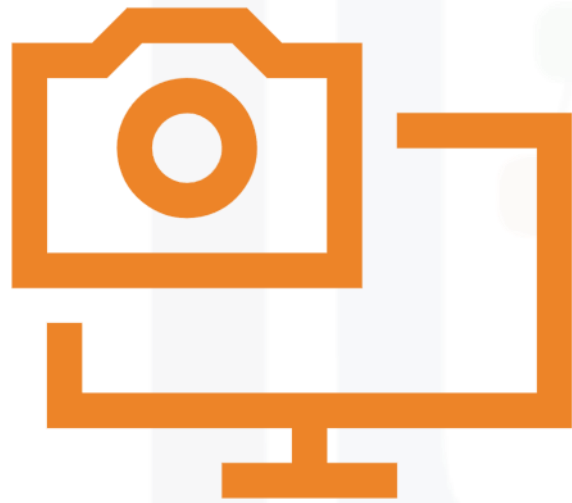
- C# becoming increasingly popular.
- The gender demographic of developers
- The geographic distribution of developers

CONCLUSION

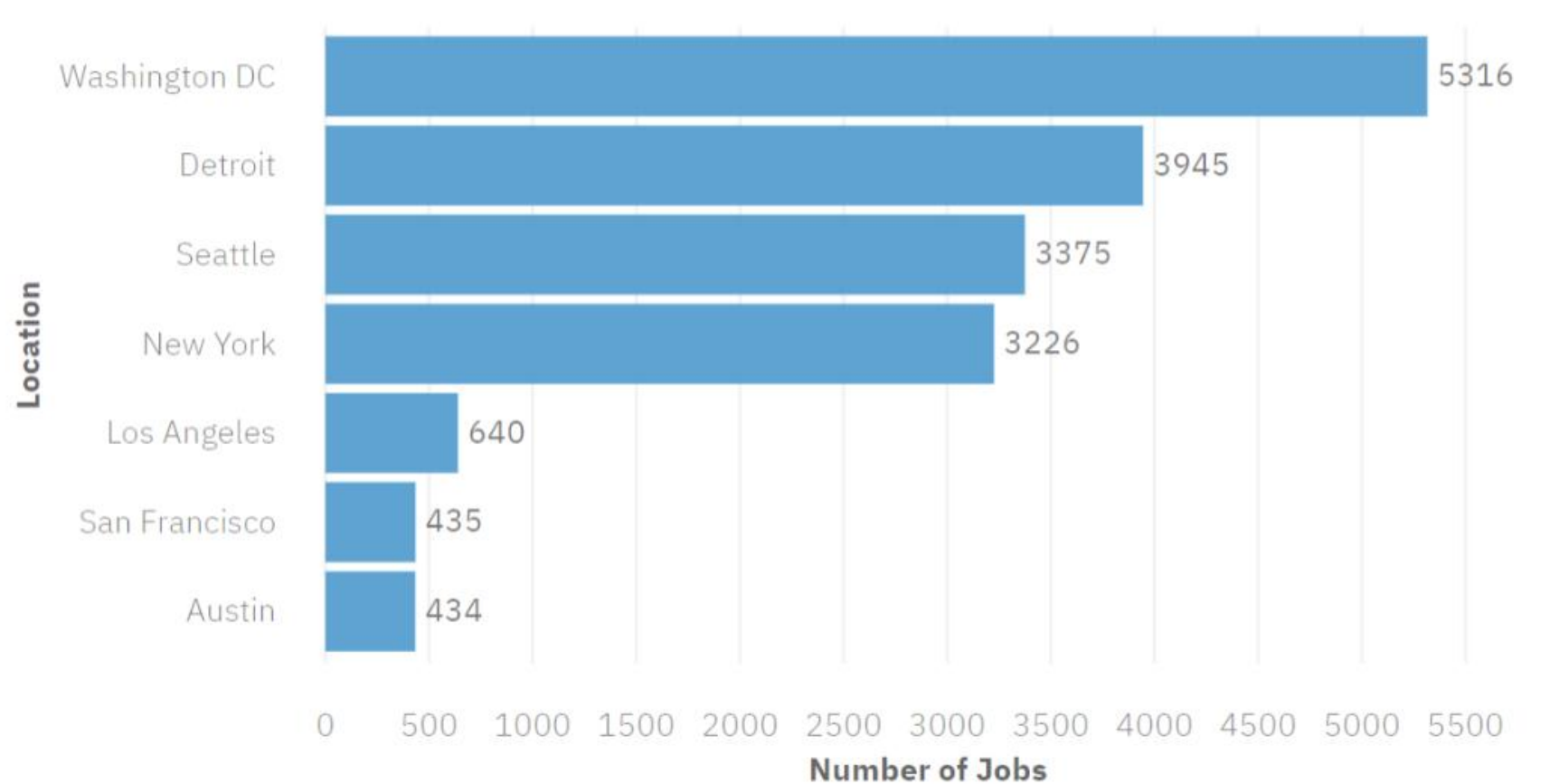


- Developers tends to be young male from a developed countries
- The popularity trends of different technology tools can be obtained
- There need to be a shift in the demographic and geographical trends of developers, expanding the labor market into more countries.

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

