



Ibm Capstone Project

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7/8/2024

OUTLINE



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

EXECUTIVE SUMMARY



- Comparison of Programming Languages used for this year and desires for next year.
- Trends and Analysis
 - Programming Trends
 - Databases Trends
 - Gender and Respondent analysis
- Discussion on Gender in Technology Job Market
- Conclusion of Findings and Additional Analysis

INTRODUCTION



The purpose of this presentation is to present the findings and trends of the technology job market. Many changes in terms of databases and desires within the industry will be presented. Suggestions on how to move forward to maintain within the scope of the local technology job market will also be presented.

METHODOLOGY



The methodology used in this presentation will be IBM Cognos Analytics, where bar charts, line charts, tree maps, and bubble charts are used to measure the programming usage, database trends, desires for the upcoming year, and the gender gaps within the technology job market.

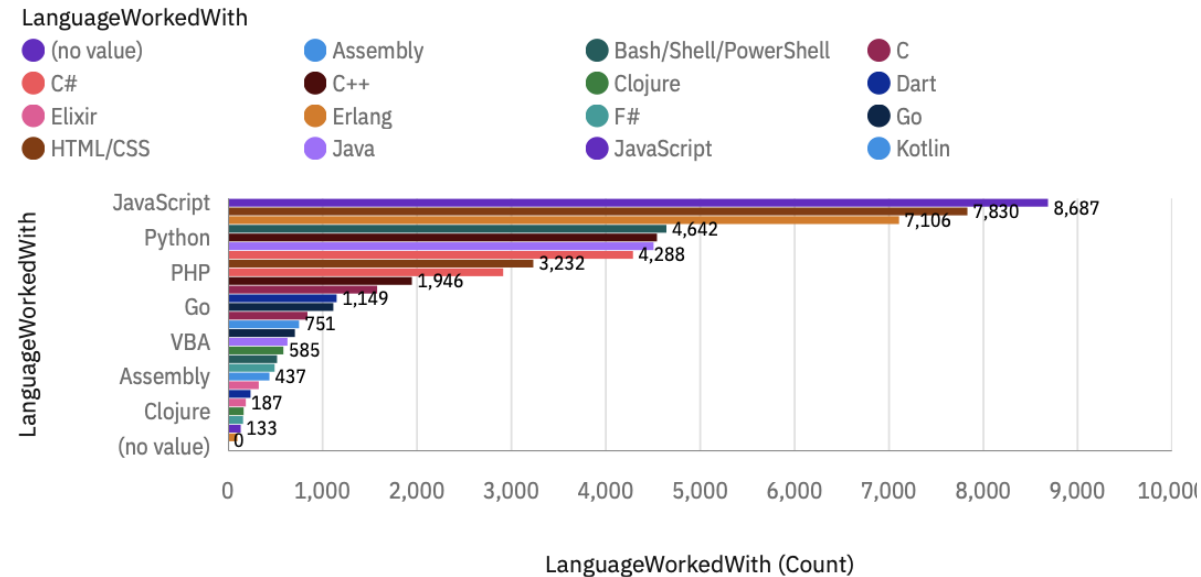
RESULTS



PROGRAMMING LANGUAGE TRENDS

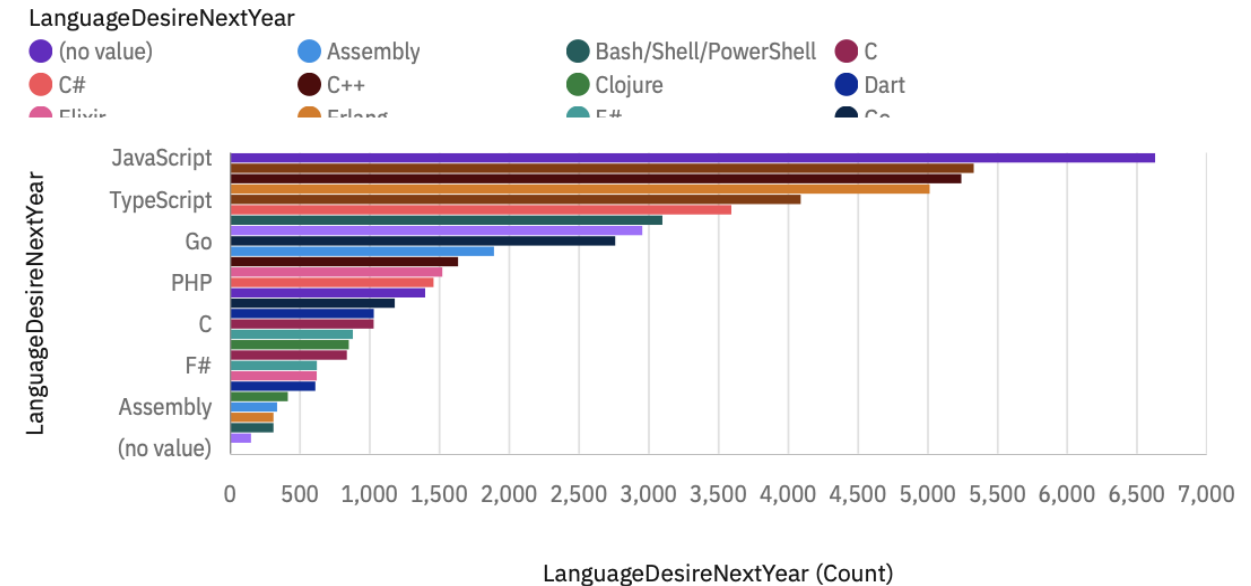
Current Year

Distribution of Language Worked With



Next Year

Language Desire for Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- We can see that Javascript will still be the leading programming language for this year and next year
- There will be a significant increase in the implementation for GO in the next year
- Bash will continue to remain in the same popularity for next year.

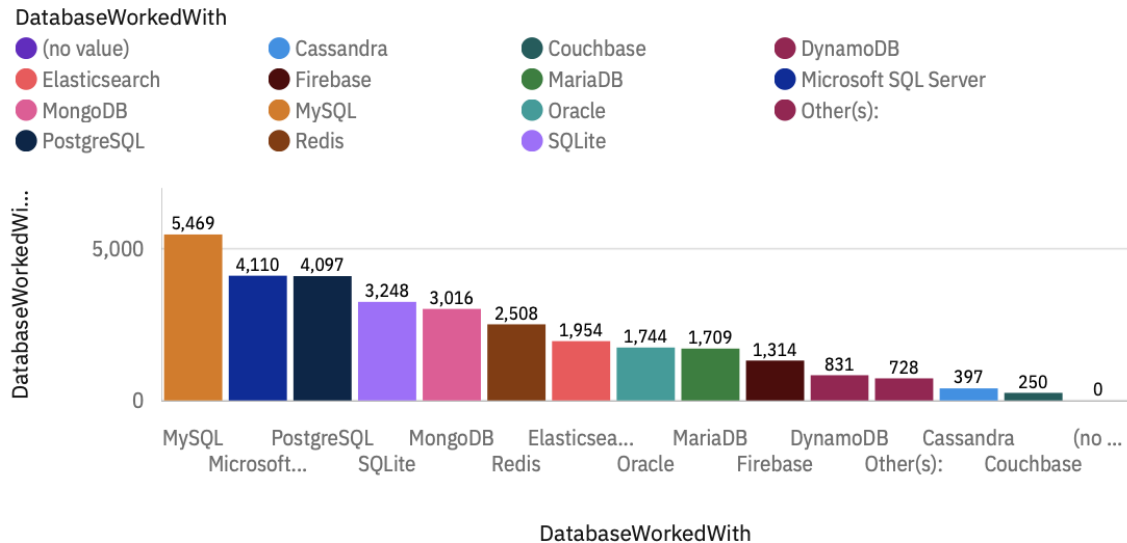
Implications

- Go will be used more, signifying the increased popularity of cloud based applications and DevOps
- Application and website building will still be the top job with the ongoing popularity of JavaScript.
- There will be the same demand in shell programming, which must be taken into account.

DATABASE TRENDS

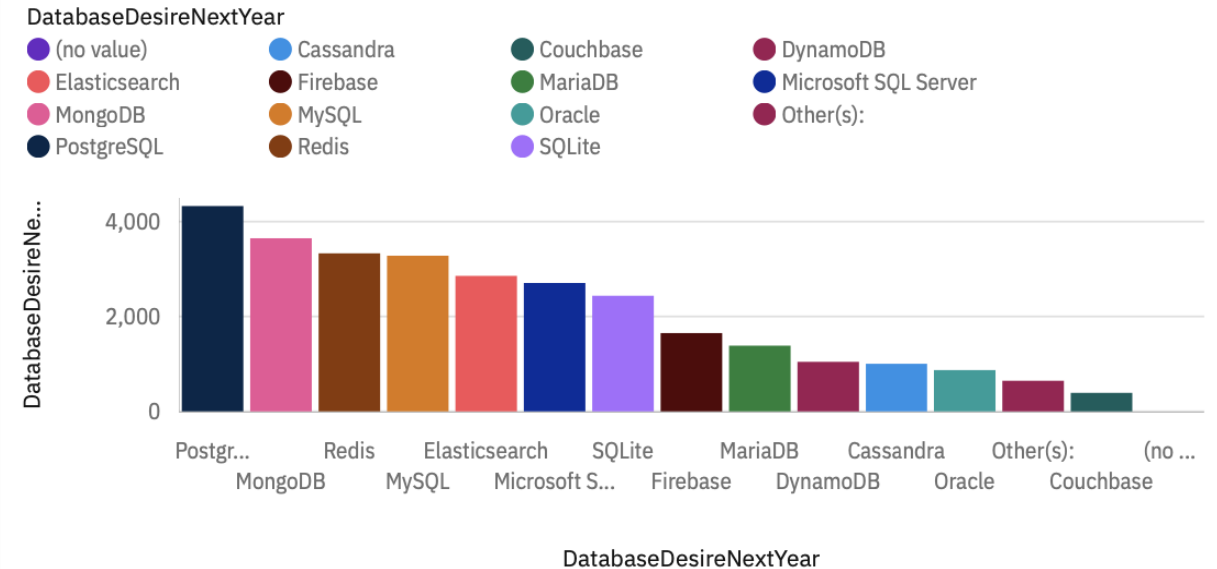
Current Year

Top 10 Databases Worked With



Next Year

Database Desire for Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- PostgreSQL will be the top database for next year.
- There will be an increase in popularity for MongoDB.
- There will be an increase in demand for Redis.

Implications

- There will be an increase in storage applications.
- There will be an increase in statistical analysis in technology.
- There will be an increase in data engineers due to the increase of database warehouses and pipelines.

DASHBOARD

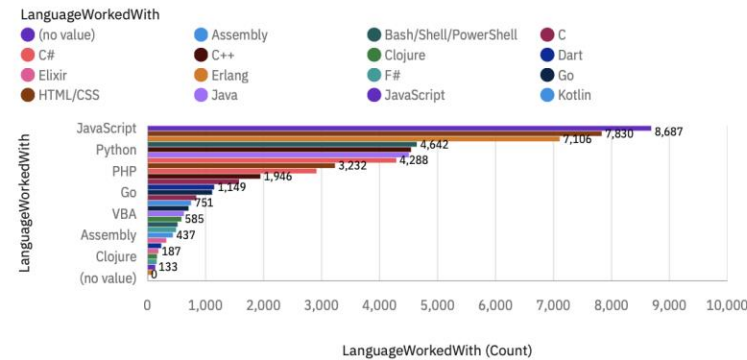


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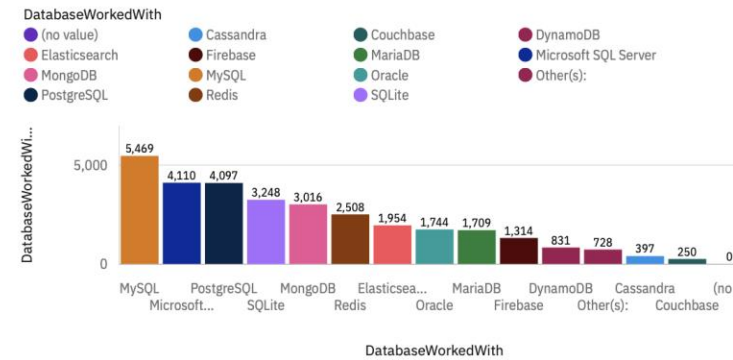
DASHBOARD TAB 1

Current Technology Use

Distribution of Language Worked With



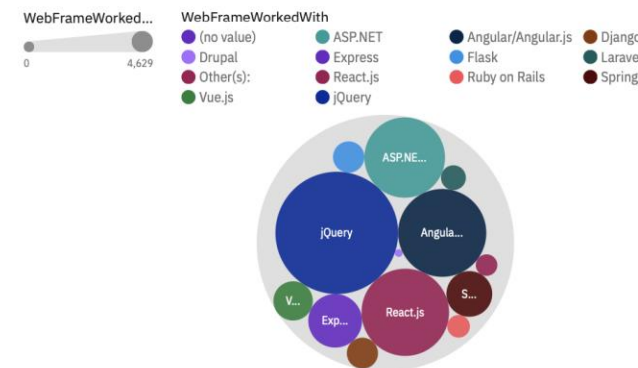
Top 10 Databases Worked With



Platform Popularity



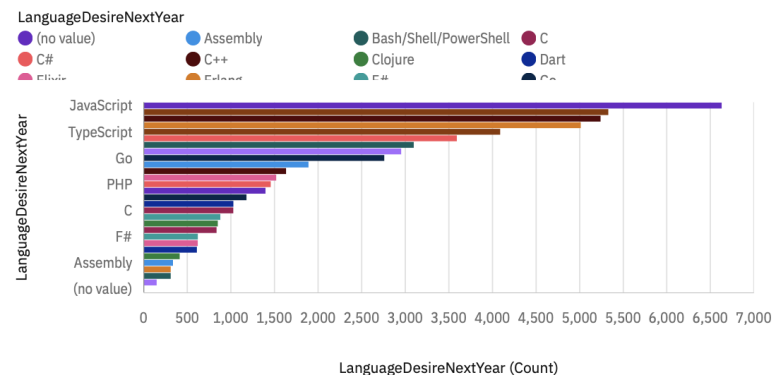
WebFrame Worked with hierarchy



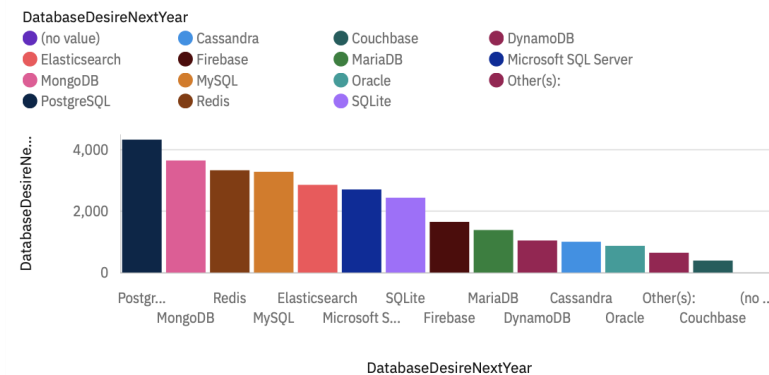
DASHBOARD TAB 2

Future Technology Trend

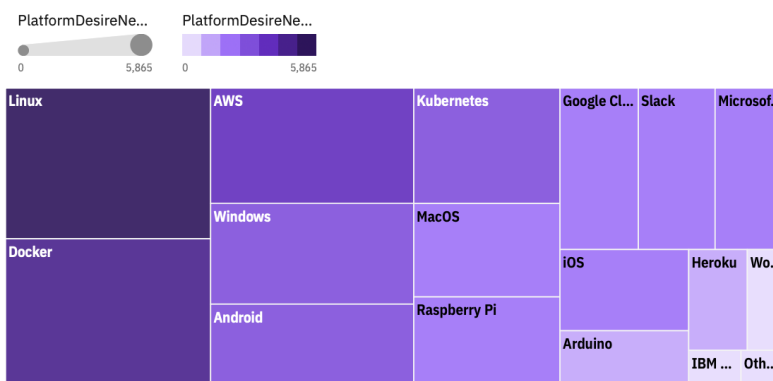
Language Desire for Next Year



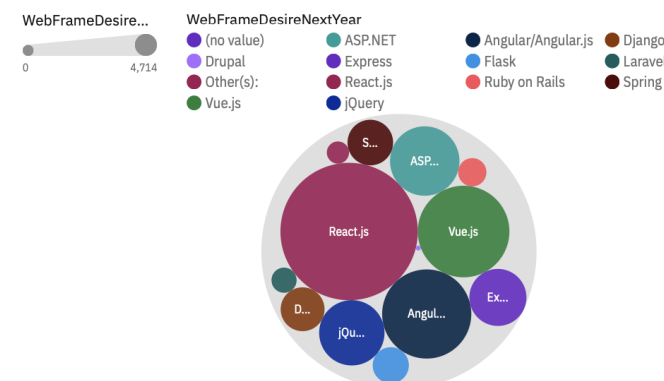
Database Desire for Next Year



Platform Desire for Next Year



Web Frame Desire for Next Year

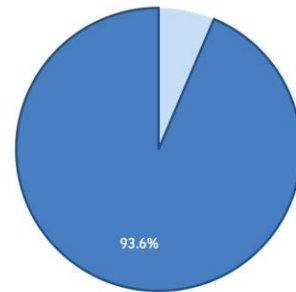


DASHBOARD TAB 3

Demographics

Respondents classified by Gender

Gender
○ Woman ● Man

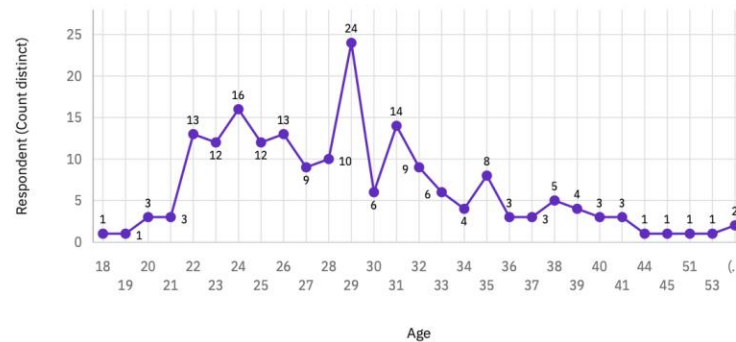


Respondent for Country regions

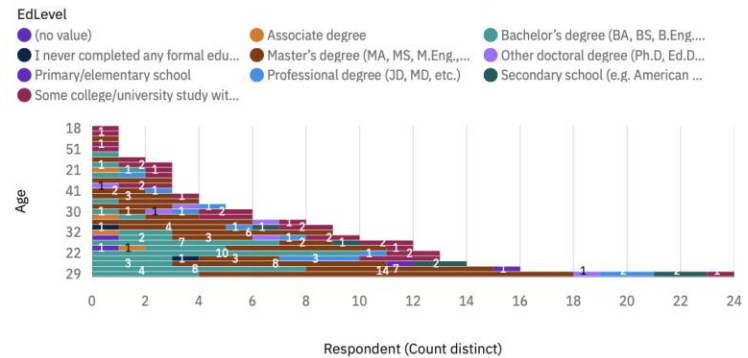
Respondent (Cou...
1 2,805




Respondent Count by Age



Respondent Count by Age clas by EdLevel



DISCUSSION



We notice in the distribution of Gender in the Technology Job Department is very significant, with a huge diversification towards men than woman.

OVERALL FINDINGS & IMPLICATIONS

Findings

- The ongoing interest of React.js signifies that speed of programming is evolving.
- Most respondents mainly reside in the Middle East or Asia, implying the popularity of tech jobs in those regions.
- Mysql is the top database used for this year, implying that a query based language is very useful in the technology industry.

Implications

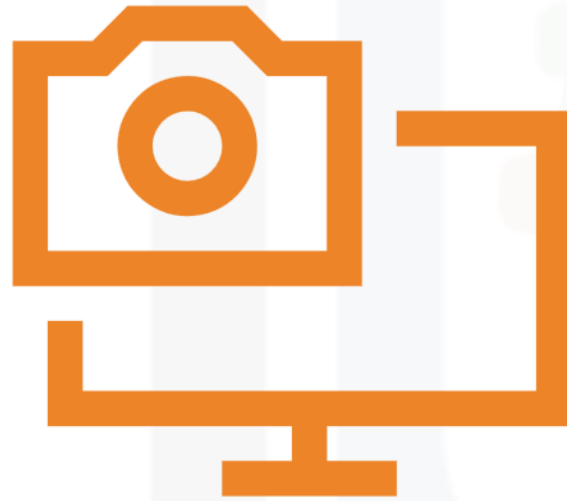
- The growing world of programming will only get faster with the usage of new databases,
- We must hire more people in technology from other regions.
- There will be a rise for data analytics and data science.

CONCLUSION

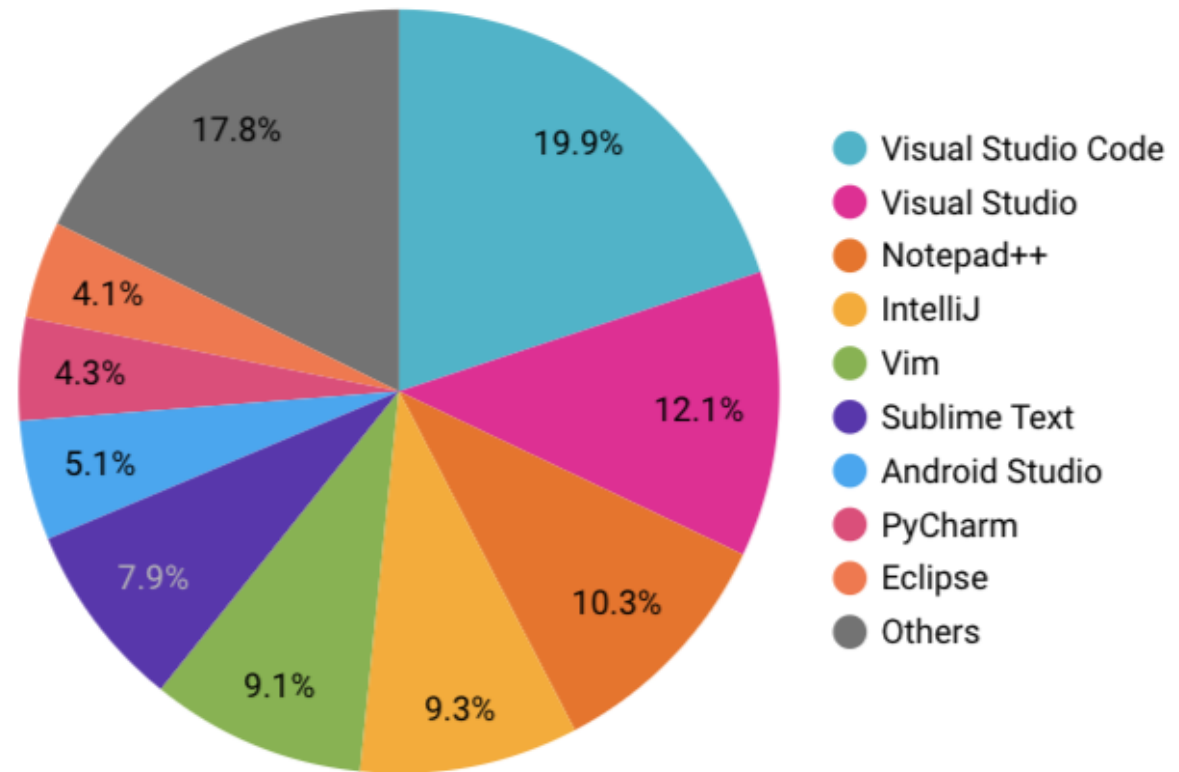


- The Job market is evolving every day, with different needs for each year.
- The implementation of more woman in technology must be done.
- The increase of statistical analysis and data warehouses must be implemented.
- There will be a change of popularity in programming language preference and database preference.

APPENDIX



Top Development Envrionments Used



POPULAR LANGUAGES

