



Capstone Story

Tyrone Bacchus

Wednesday November 22nd, 2023

OUTLINE



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

EXECUTIVE SUMMARY



- Question: How do current trends differ from projected trends
 - New technologies are gaining interest over older ones
- Question Where is the data for this analysis coming from
 - Male Americans with Bachelor's degrees make up a significant portion of the data



INTRODUCTION



- Nature of Analysis
 - To delve into the various trends within the IT sector
- Problem
 - What are the current trends for various technologies and how do they reflect demographically
- Questions for Analysis
 - How do current trends differ from project trends
 - Where is the data for this analysis coming from

METHODOLOGY



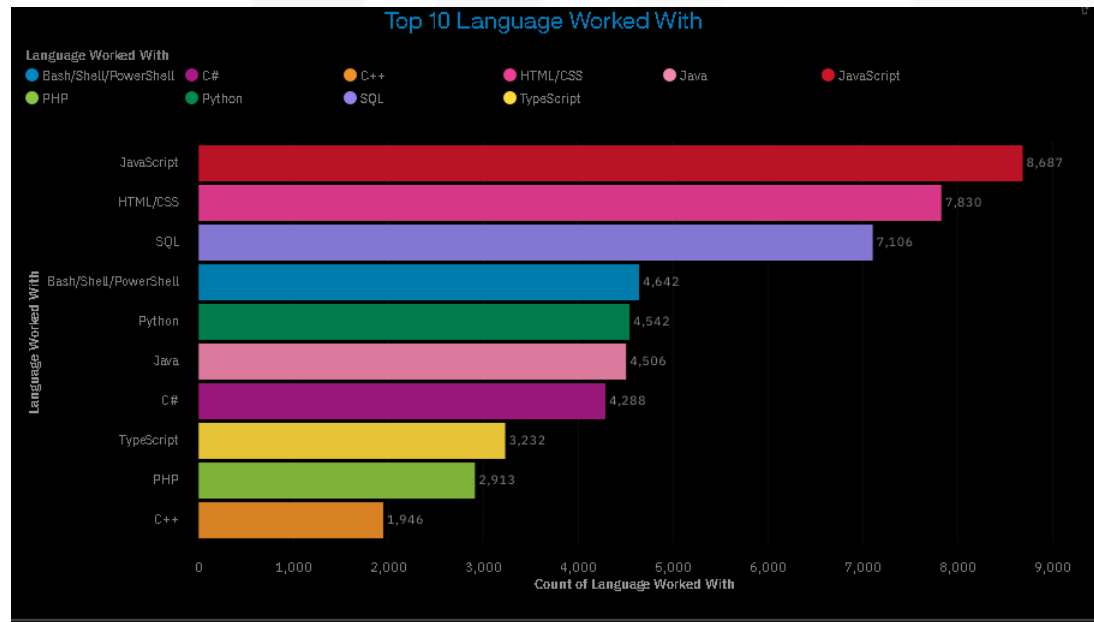
- Data sources
 - m5_survey_data_technologies_normalised.csv
 - 
Microsoft Excel
1a Separated Va
 - m5_survey_data_demographics.csv
 - 
Microsoft Excel
1a Separated Va
- Plan for the collected data
 - Basic count of indexes are used to generate values key to insights

RESULTS

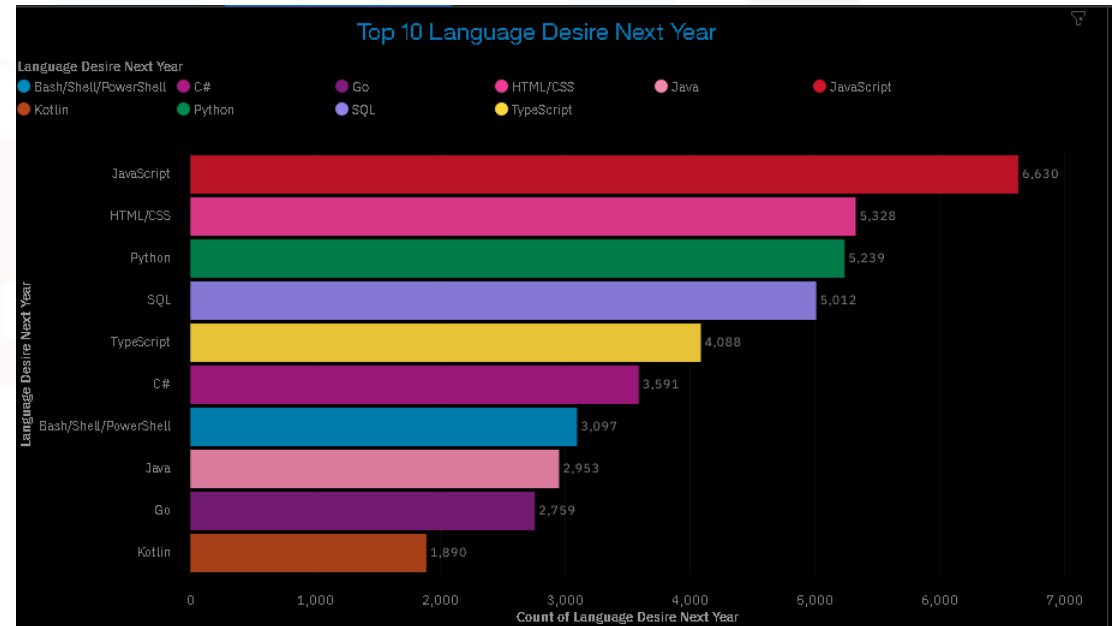
- Utilize IBM CDE Plugin for Watson to create inferences
- Plot findings using multiple dashboard tabs
 - Tabs contain the following charts
 - Bar: Horizontal bars showing count as value
 - Column: Vertical bars showing count as value
 - Word Cloud: Size of words showing frequency as value
 - Hierarchical Bubble: Size of bubble showing frequency as value
 - Pie: Size of slice showing frequency as value
 - Map: Geographical map showing count as value
 - Line: Line showing trend of value over dependent

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

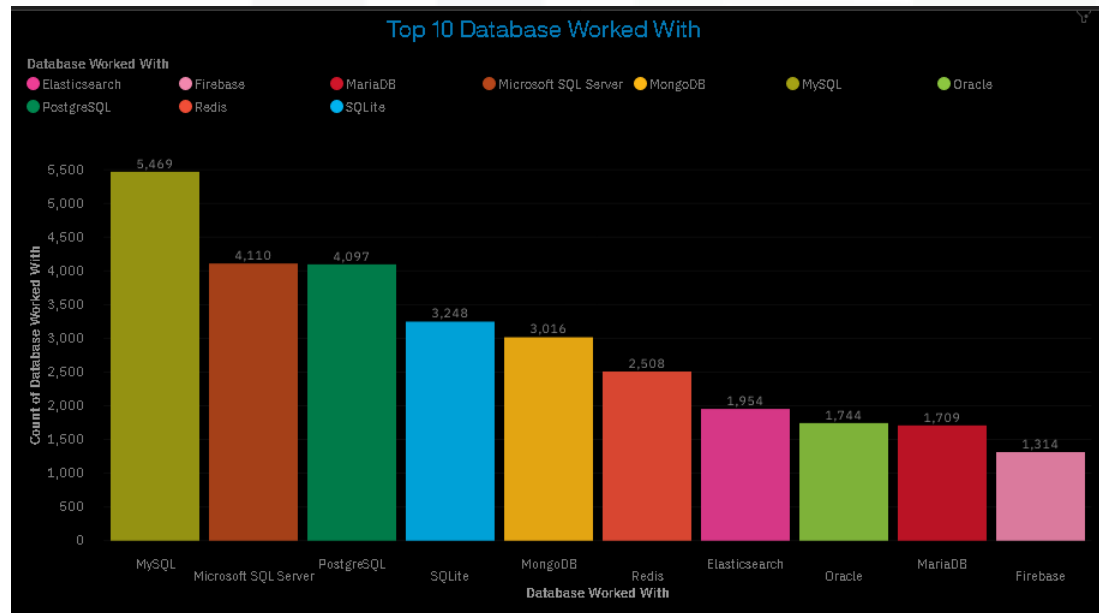
- Top 5 Languages Currently Used are:
 - JavaScript
 - HTML/CSS
 - SQL
 - Bash/Shell/PowerShell
 - Python
- Top 5 Languages Most Desired
 - JavaScript
 - HTML/CSS
 - Python
 - SQL
 - TypeScript

Implications

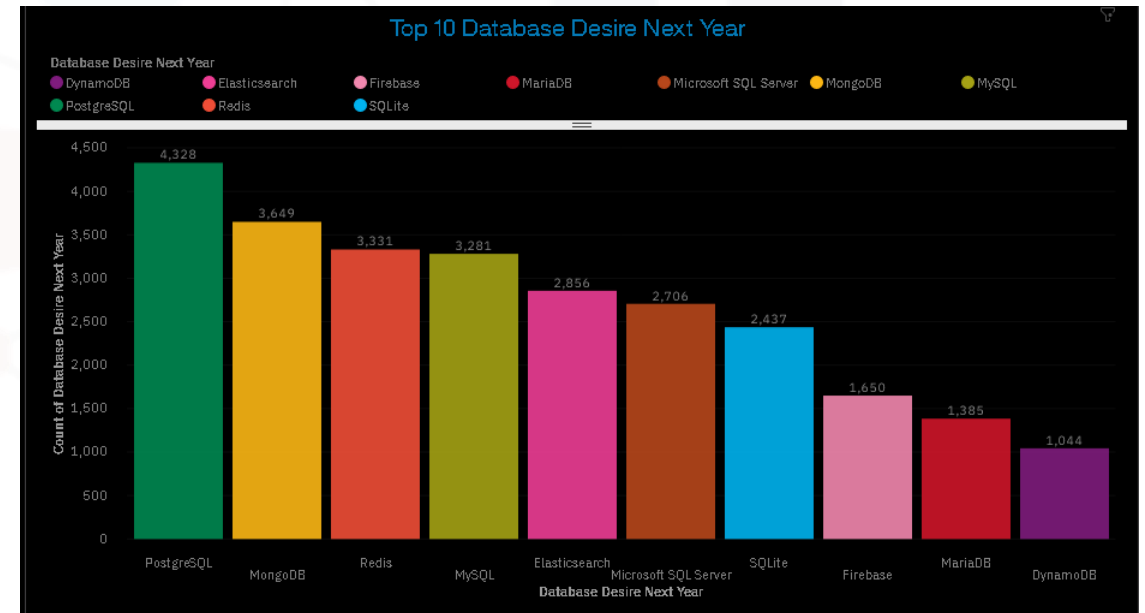
- JavaScript and HTML/CSS remain the top candidates for both current and future program languages
- Python is gaining popularity over SQL
- Interest in TypeScript is gaining traction while interest in Bash/Shell/PowerShell is diminishing

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Top 5 Databases Currently Used are:
 - MySQL
 - Microsoft SQL Server
 - PostgreSQL
 - SQLite
 - MongoDB
- Top 5 Databases Most Desired
 - PostgreSQL
 - MongoDB
 - Redis
 - MySQL
 - Elasticsearch

Implications

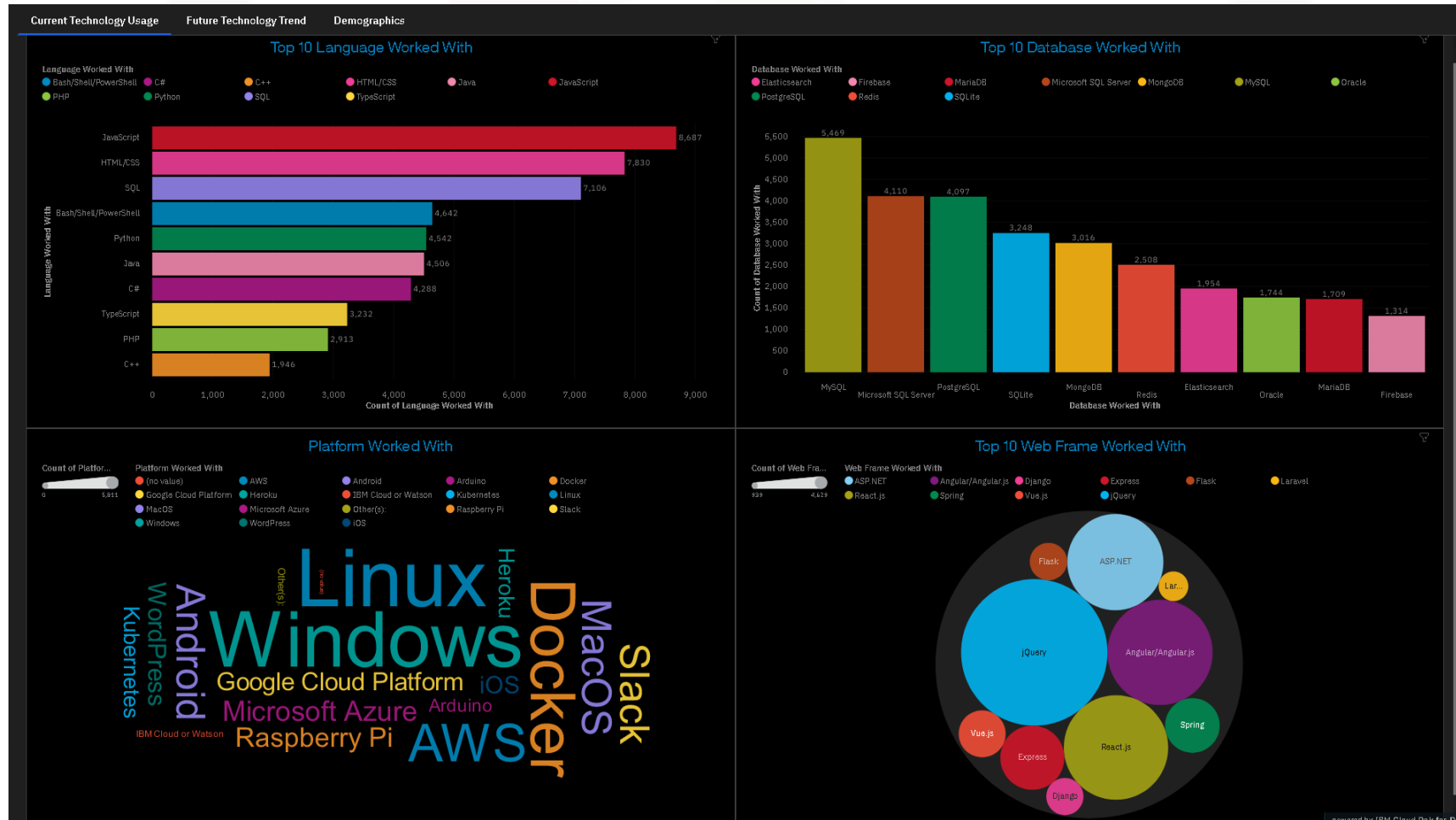
- Interest in MySQL and Microsoft SQL Server is declining
- Interest in PostgreSQL and MongoDB is increasing
- Newer databases are gaining popularity

DASHBOARD



Dashboard

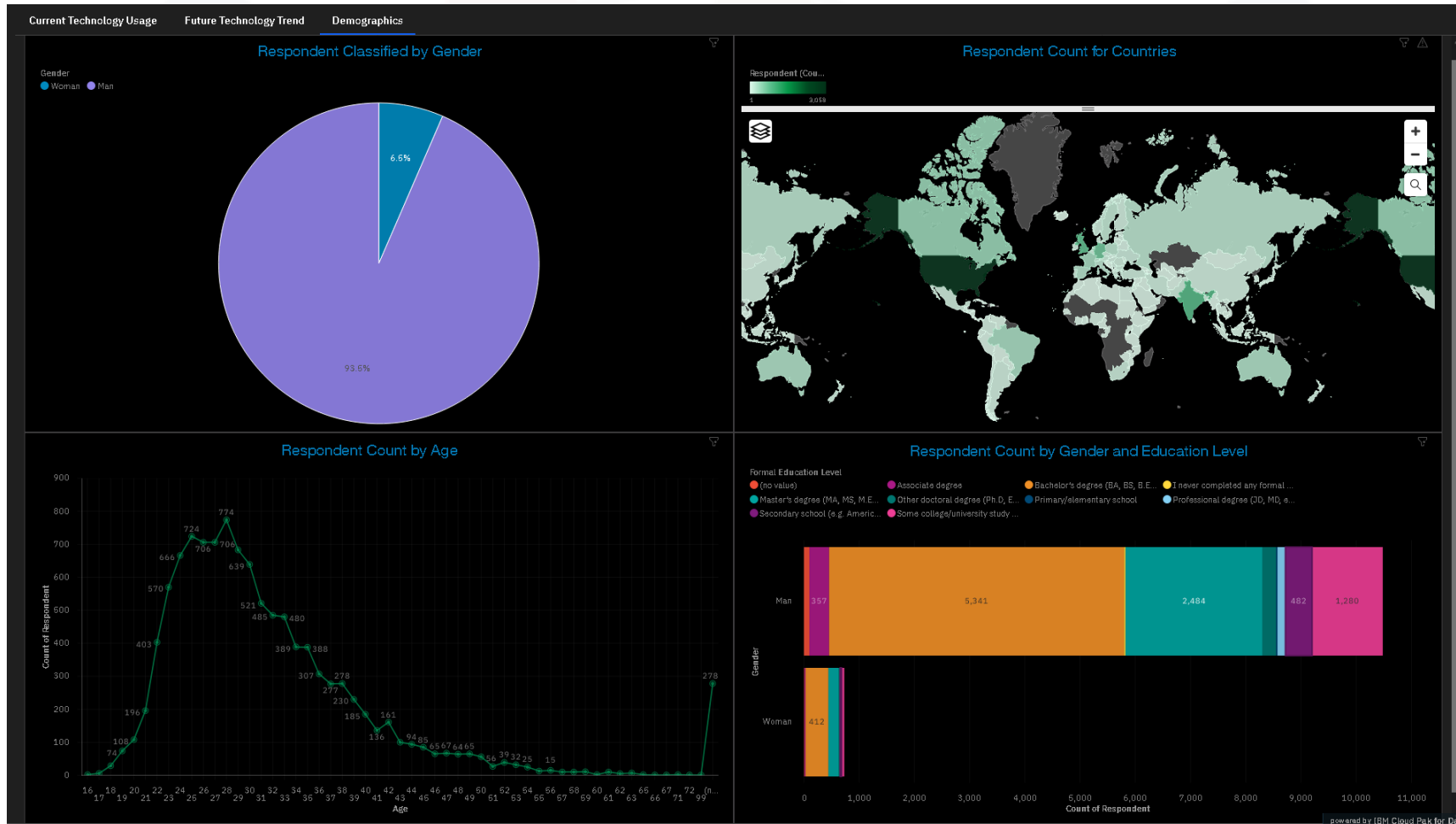
DASHBOARD TAB 1



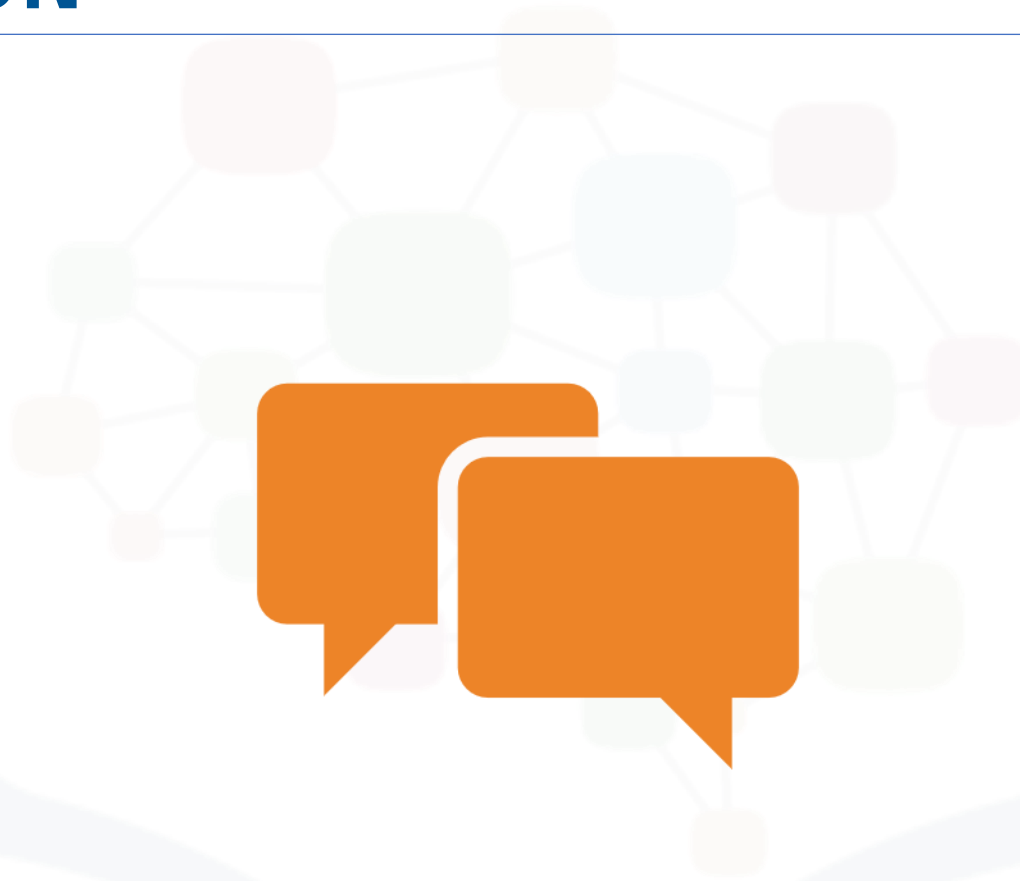
DASHBOARD TAB 2



DASHBOARD TAB 3



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Respondents skewed in favor of men over women
- Most respondents were living in the United States of America
- A sizeable of portion of respondents had a Bachelor's degree

Implications

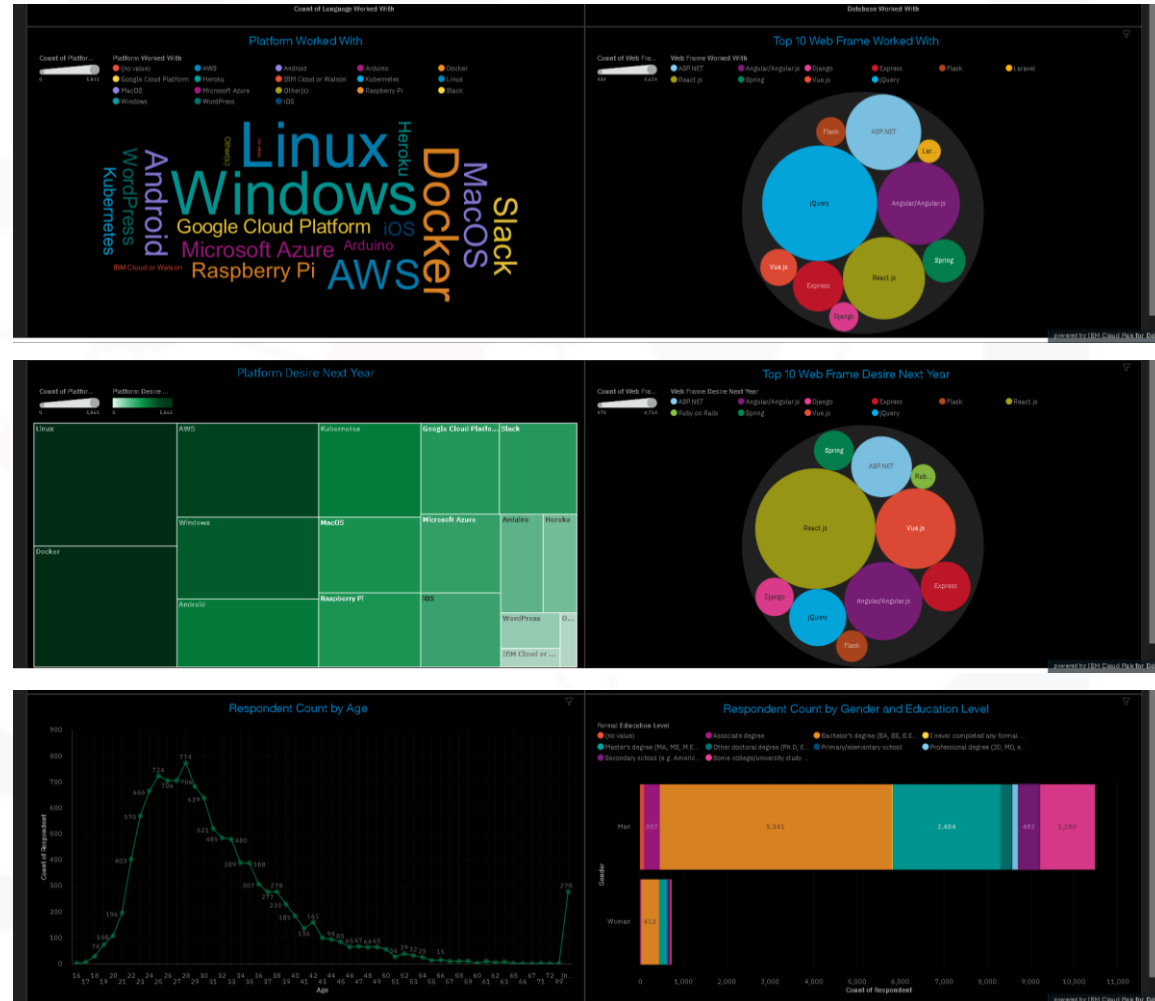
- Men are more willing to be a respondent
- Americans were more likely to respond in this survey
- Most of these participants were well educated

CONCLUSION



- What are the current trends for various technologies and how do they reflect demographically
 - Question: How do current trends differ from projected trends
 - New technologies are gaining interest over older ones
- Question Where is the data for this analysis coming from
 - Male Americans with Bachelor's degrees make up a significant portion of the data

APPENDIX

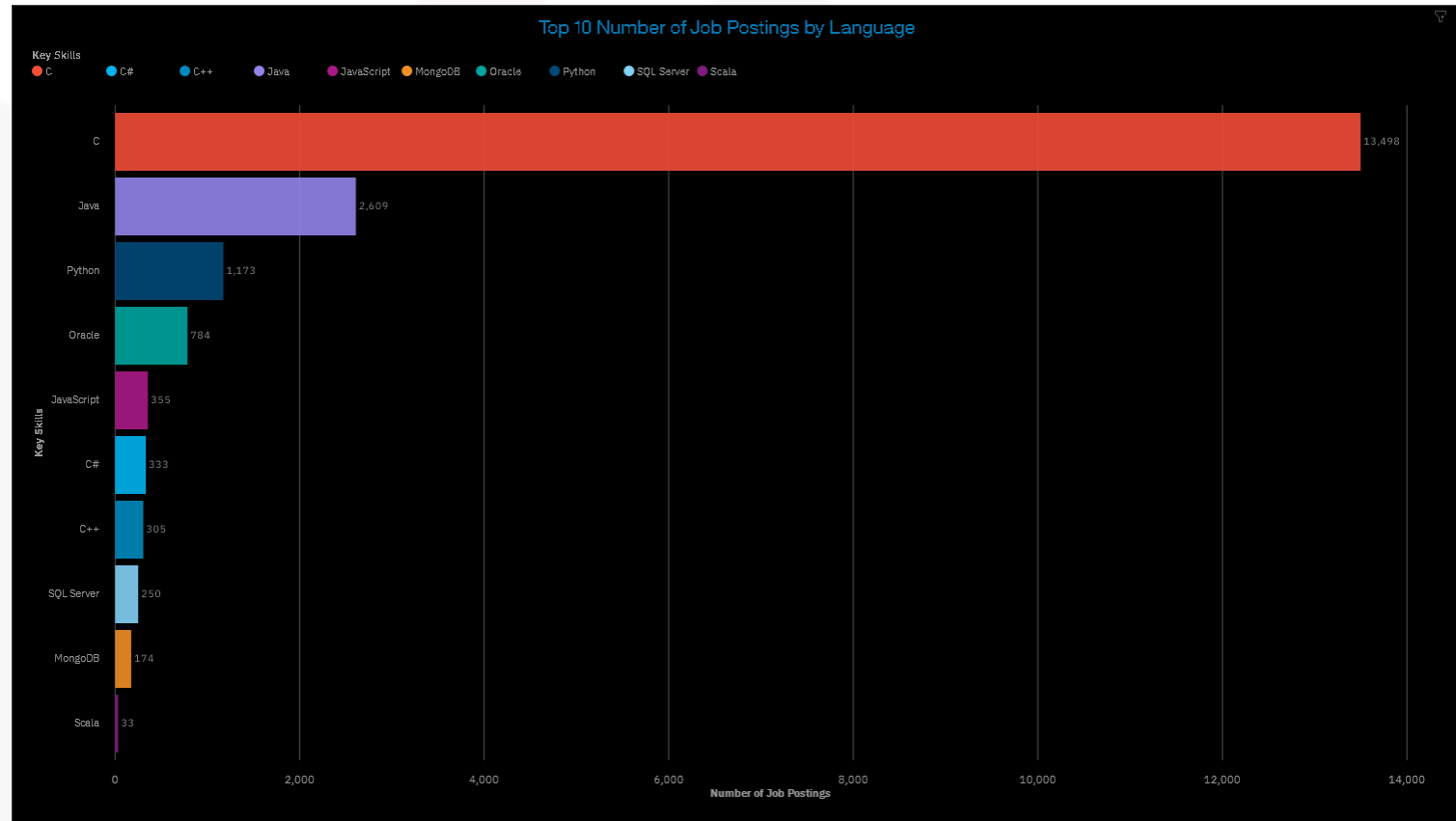


Microsoft Excel
na Separated Va



Microsoft Excel
na Separated Va

JOB POSTINGS



POPULAR LANGUAGES

