



TECHNOLOGY TREND ANALYSIS

ABIDEMI KEHINDE

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OUTLINE



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

EXECUTIVE SUMMARY



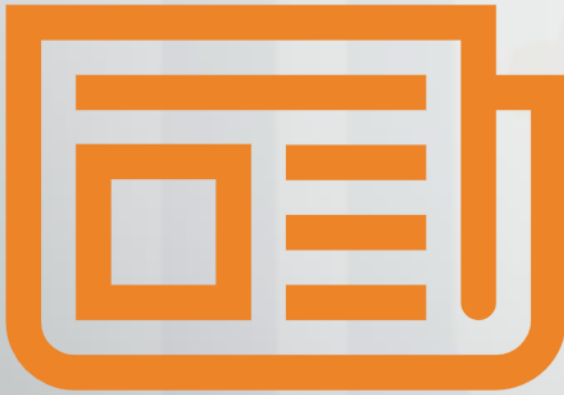
- Current Technology Usage Trend
 - Top 5 Languages
 - Top 5 Databases
 - Platform
 - Top 5 Web Frames
- Future Technology Trend
 - Top 5 Languages desired next year
 - Top 5 Databases desired next year
 - Platforms desired for the next year
 - Web Frame
- Demographics Survey

INTRODUCTION



- Analyze technology trends in software and web development among developers around the world
- Purpose of this Analysis
 - Identify the top programming languages, database platform, and web frame skills in demand
 - Identify skill requirements for future
 - Identify human resource gap in the industry
- Audience for this Presentation
 - Programmers
 - IT industry leaders
 - Computer Science students

METHODOLOGY



- Data Collection (Sources)
 - Data collection using APIs
 - Data collection using web scraping
- Data Wrangling
 - Finding and deleting duplicates
 - Finding and inputting missing values
 - Normalizing data
- Data Exploration
 - Plotting distribution curve
 - Finding and removing outliers
- Data Visualization
 - Python matplotlib & Seaborn
 - IBM Cognos

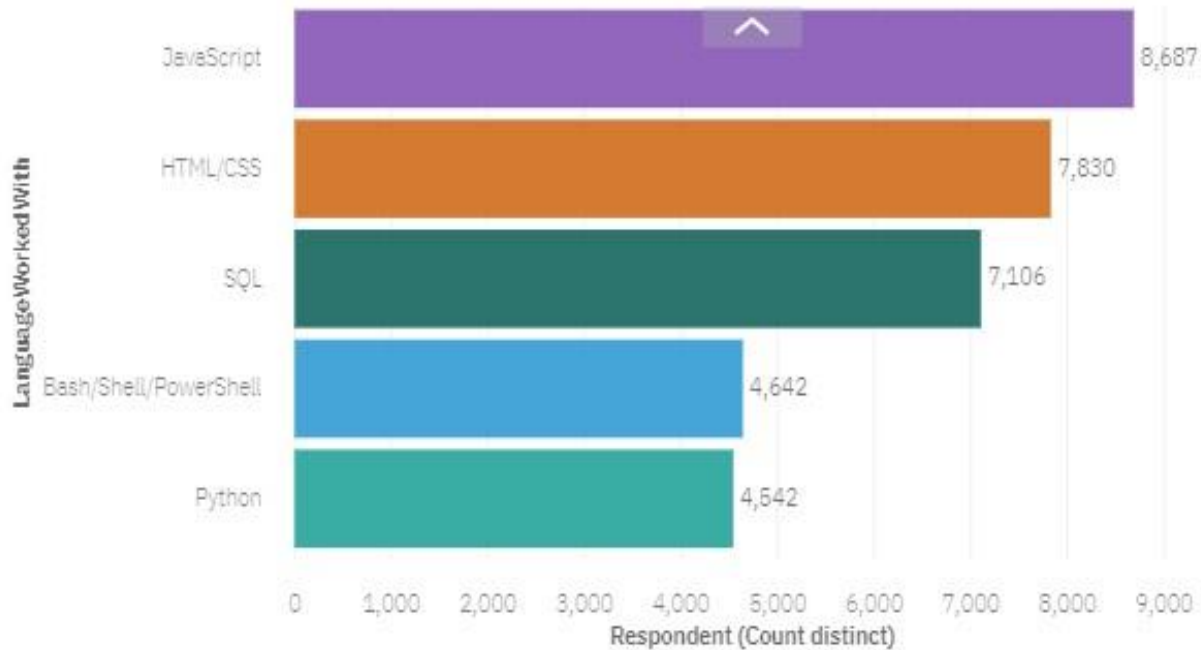
RESULTS



PROGRAMMING LANGUAGE TRENDS

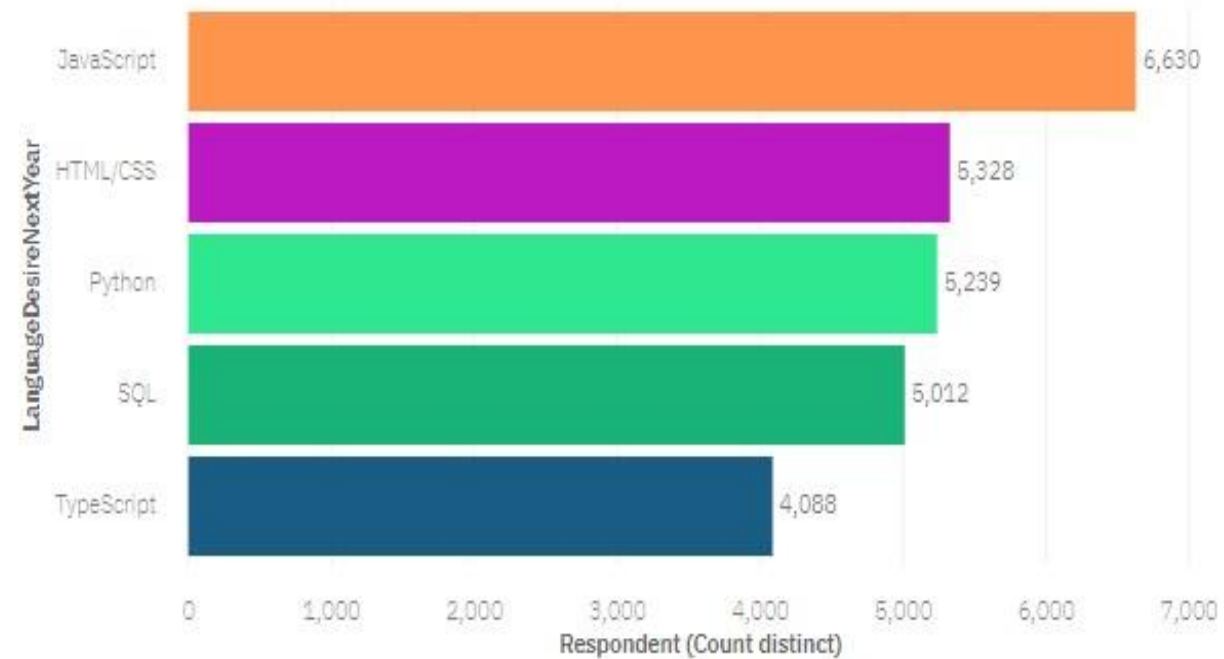
Current Year

Top 5 Languages Worked With



Next Year

Top 5 Languages Desired Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- JavaScript is the most popular language to use presently and in the next year.
- HTML/CSS is the second most popular language to use presently and in the next year
- Python moved from fifth in the present year to third most popular language to use in the next year

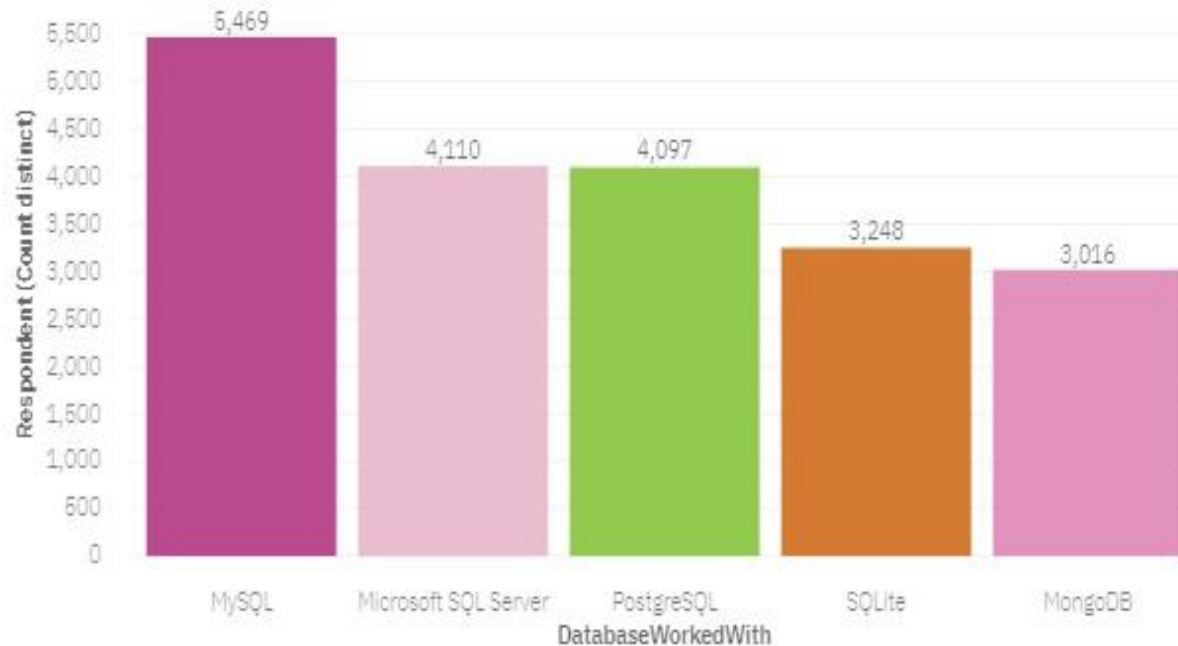
Implications

- JavaScript and HTML/CSS have high demand in both current and future trend
- Python is rising in trend and therefore will see an increase in demand
- Languages like Java, C++, C# are losing trend and therefore will see a decrease in demand

DATABASE TRENDS

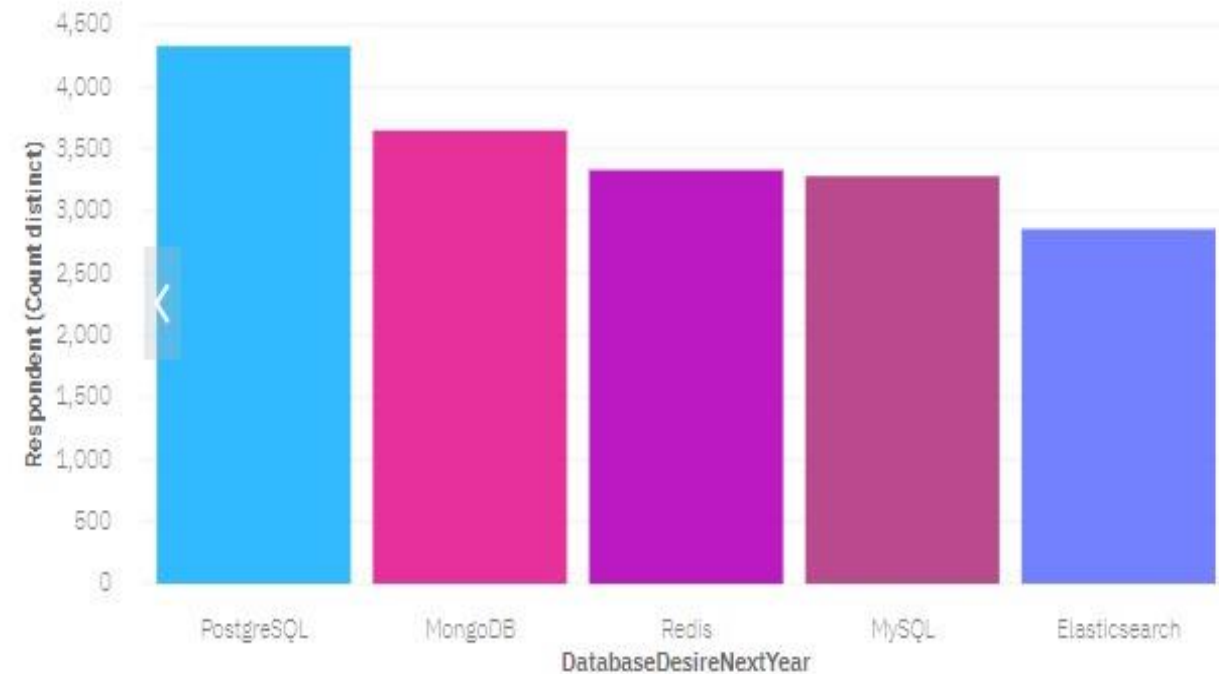
Current Year

Top 5 Databases Worked With



Next Year

Top 5 Databases Desired Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL is the most popular database
- There is significant use of Microsoft SQL Server in the present year
- MongoDB and Redis are the most commonly used NoSQL database

Implications

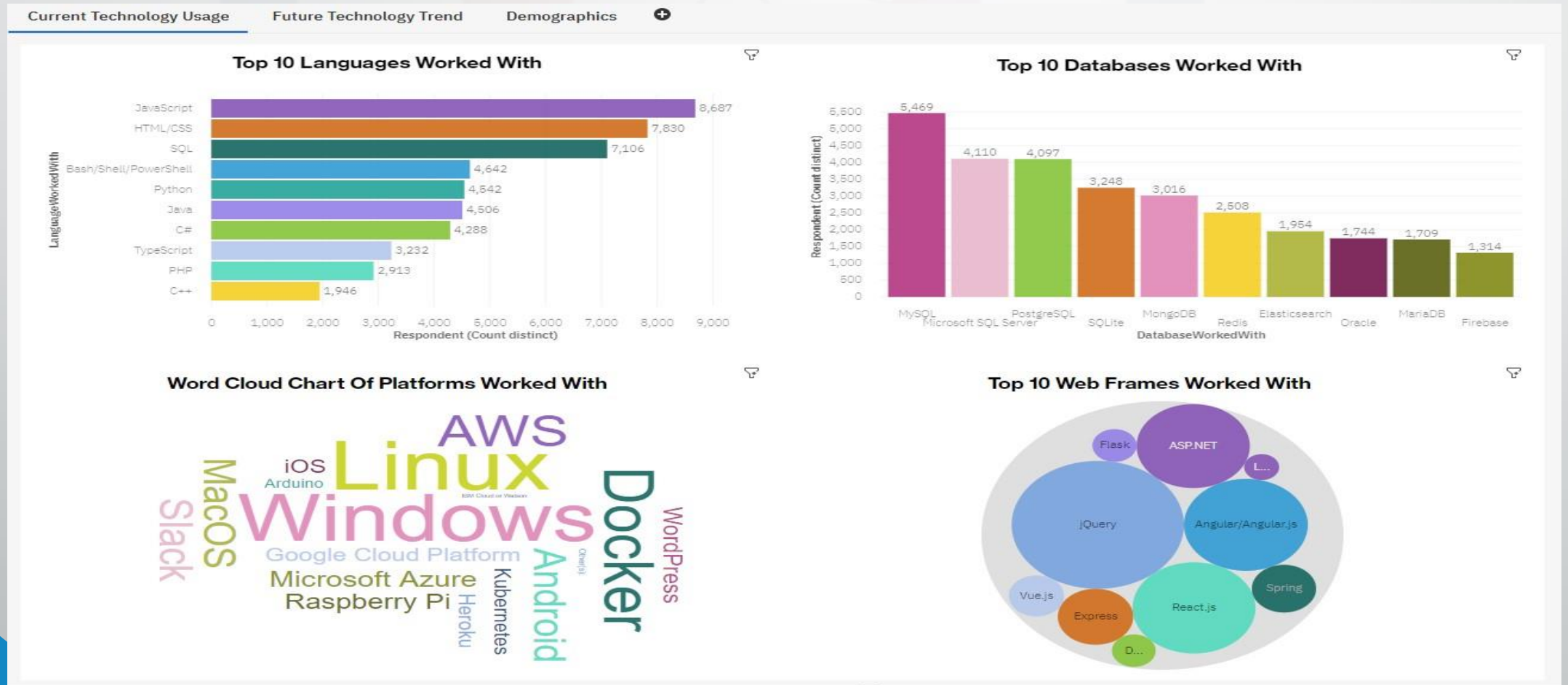
- MySQL is still a preferred open-source database to use in the nearest future
- NoSQL databases will have an impact on relational database
- Big data is gaining trend in the nearest future

DASHBOARD

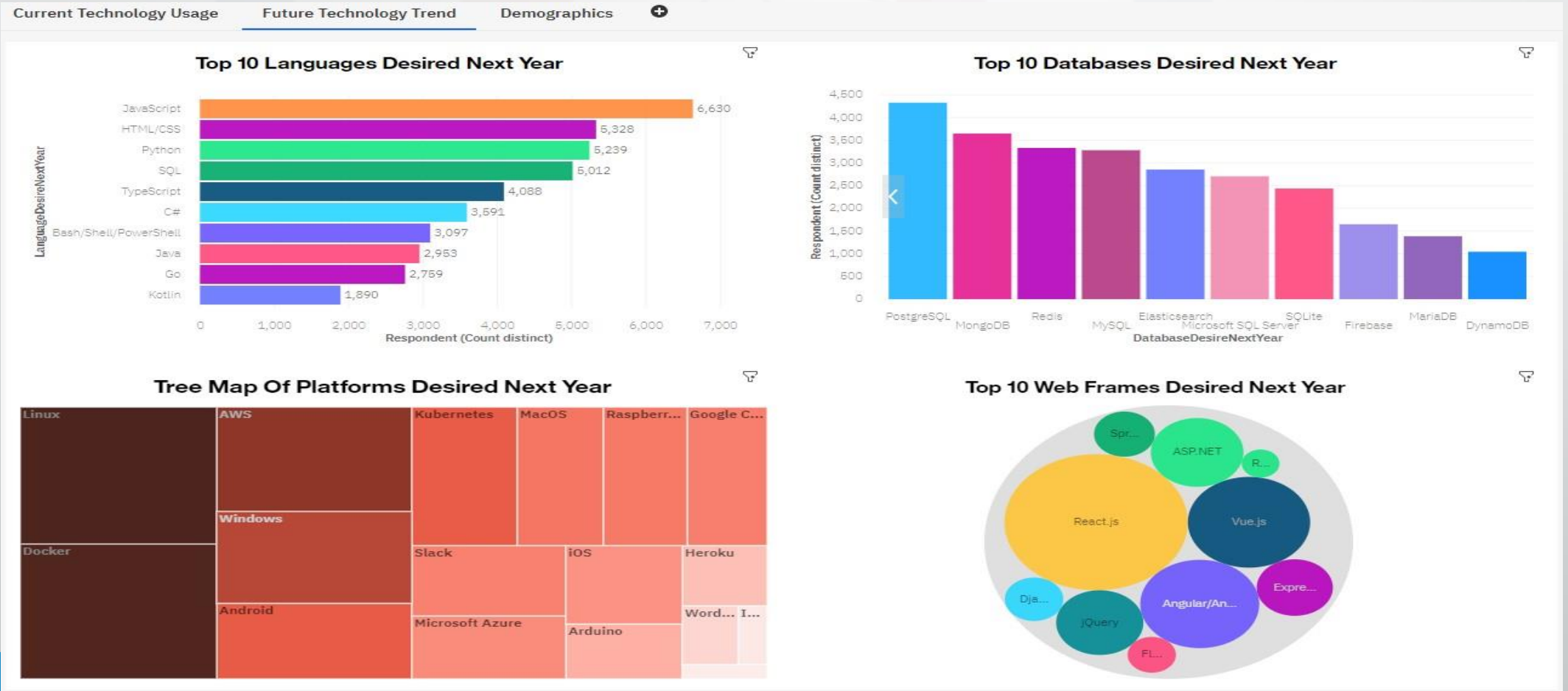


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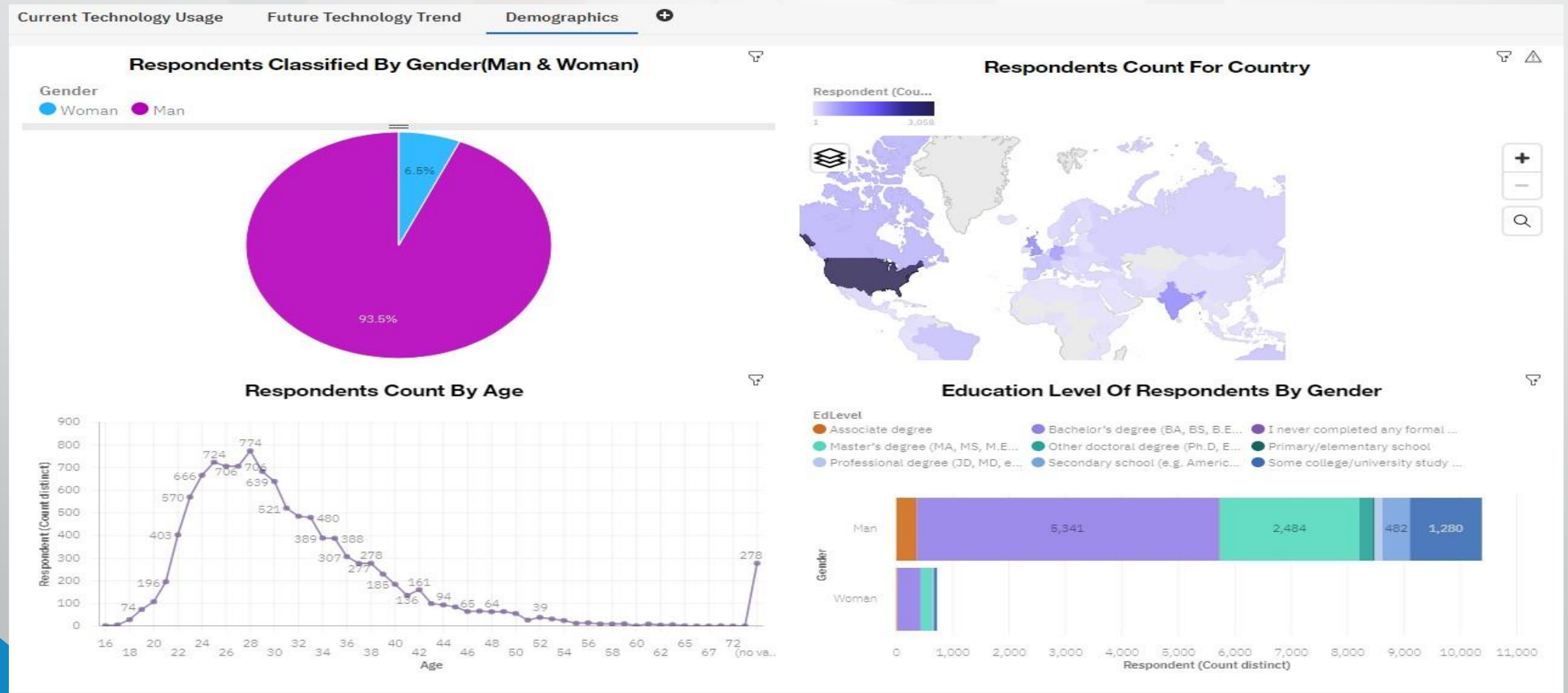
DASHBOARD TAB 1



DASHBOARD TAB 2



DASHBOARD TAB 3



DISCUSSION



- Technology usage trend shows that the nearest future is big data and the knowledge on advanced databases and programming languages will have a huge impact
- There is a need for attention to gender, age, and education discrimination in the IT industry

OVERALL FINDINGS & IMPLICATIONS

Findings

- The USA is the top technology country
- Technology trends change
- The upcoming technology trend is in advanced languages
- Database trend is shifting towards the use of non-relational databases

Implications

- More countries should need to create better exposure to new technology
- Programmers should always watch out for changes in technology trends to stay relevant
- The emergence of big data has brought about the need for programmers to learn advanced programming languages and databases with easy learning

CONCLUSION



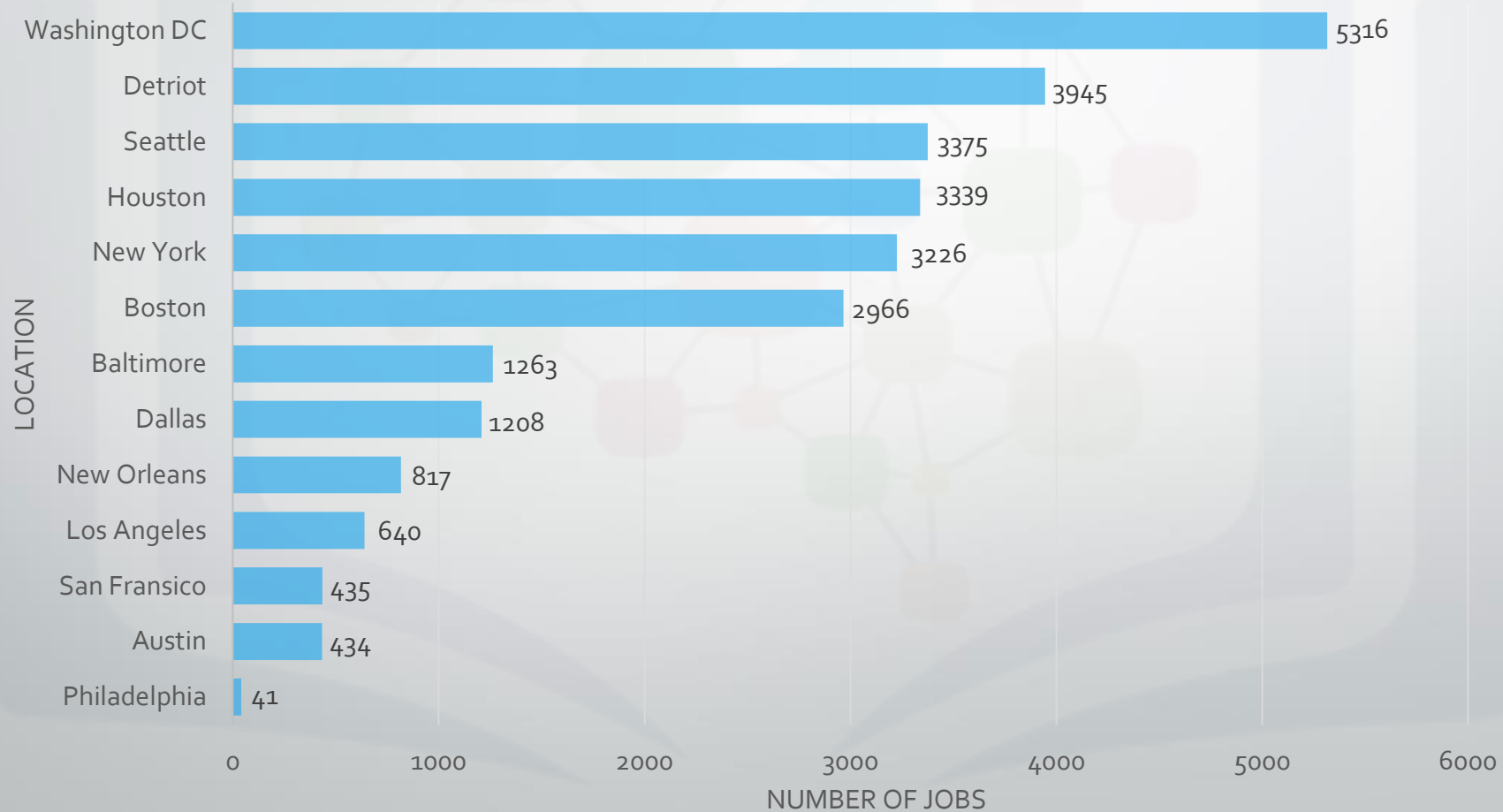
- The top programming languages and salary trends
- The top databases, platform and web frame in demand
- Demographics, gender, and education trends

APPENDIX



GITHUB JOB POSTINGS

JOB POSTINGS BY LOCATION



POPULAR LANGUAGES

POPULAR LANGUAGES BY AVERAGE ANNUAL SALARY

