



Tech Trends

**OMOVIGHO BRIGHT
OGHENOVO**

26th November 2024

OUTLINE



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



- This presentation provides insights into the latest trends in programming languages, databases, platforms, and demographics within the technology industry.
- Key findings include the continued dominance of Python, the growing popularity of NoSQL databases, and the increasing diversity of developers.

INTRODUCTION



- This presentation delves into the latest trends shaping the technology landscape .
- By analyzing data from various sources, we aim to uncover insights into the most popular programming languages, databases, platforms, and developer demographics.
- Understanding these trends is crucial for organizations and individuals to make informed decisions and stay ahead of the curve.

METHODOLOGY



- Data Collection
- Data Exploring
- Data Wrangling
- Exploratory Data Analysis
- Data visualization using Cognos Analytics
- Interpretation and insight

RESULTS

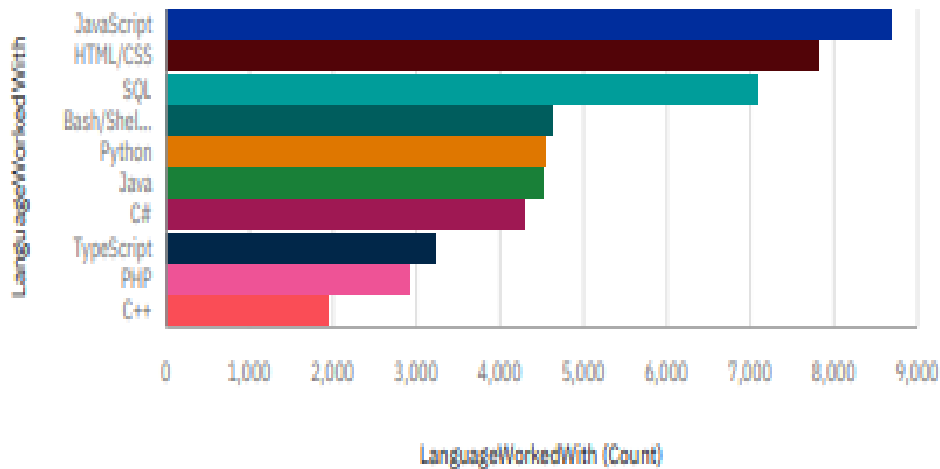
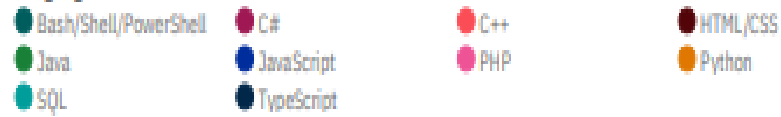
- **Python's Enduring Popularity:** Python remains the most widely used and preferred programming language, driven by its versatility, readability, and extensive ecosystem of libraries and frameworks.
- **Rise of NoSQL Databases:** NoSQL databases like MongoDB and Firebase are gaining traction, particularly for handling large volumes of unstructured data and real-time applications.
- **Cloud Computing Dominance:** Cloud platforms such as AWS, Azure, and Google Cloud Platform continue to dominate the market, offering scalable and flexible infrastructure solutions.
- **JavaScript and TypeScript's Growth:** JavaScript and TypeScript are increasingly used for both frontend and backend development, especially in web and mobile applications.
- **Diverse Developer Landscape:** The developer community is becoming more diverse, with individuals from various backgrounds and locations contributing to the technological advancements.

PROGRAMMING LANGUAGE TRENDS

Current Year

Top 10 Language Worked With

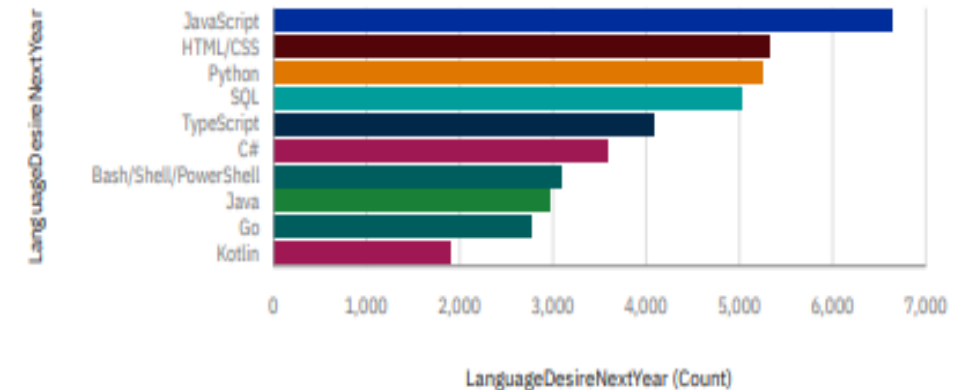
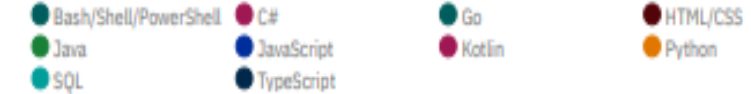
LanguageWorkedWith



Next Year

Top 10 Language Desire Next Year

LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Python continues to be the most popular language, both in terms of current usage and future aspirations.
- JavaScript and TypeScript are gaining significant traction, particularly in web development and frontend engineering.
- Despite newer languages gaining popularity, C++ remains a strong choice for system programming and performance-critical applications.

Implications

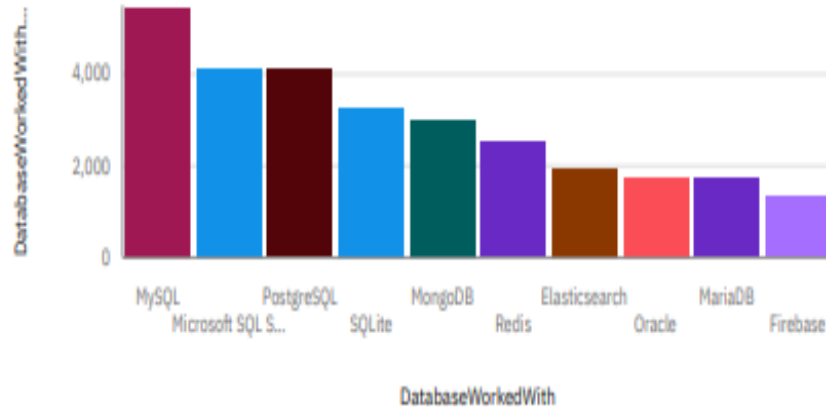
- Python's versatility, readability, and extensive libraries make it a go-to language for various applications, from data science and machine learning to web development and automation.
- As web applications become increasingly complex, JavaScript and TypeScript's capabilities in handling dynamic web content and large-scale applications will continue to drive their popularity.
- C++'s ability to provide low-level control and high performance makes it indispensable for tasks like game development, operating systems, and high-performance computing.

DATABASE TRENDS

Current Year

Top 10 Database Worked With

DatabaseWorkedWith

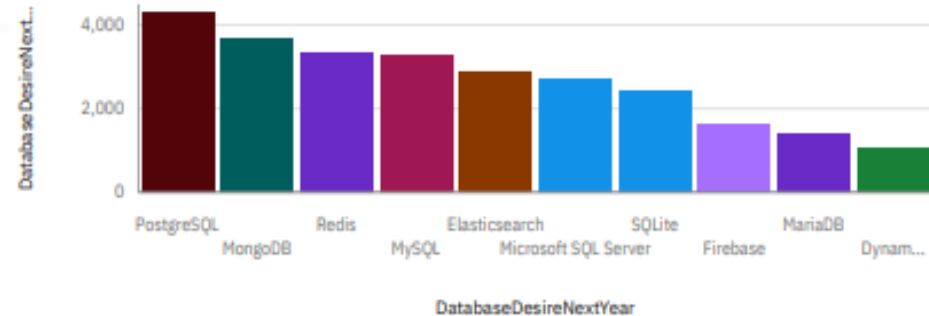
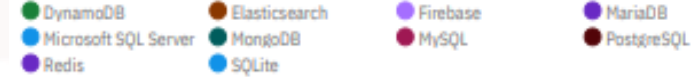


Next Year

Dashboard

Top 10 Database Desire Next Year

DatabaseDesireNextYear



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL and PostgreSQL Dominance
- NoSQL Databases like MongoDB and Firebase are gaining popularity.
- Despite the rise of NoSQL, traditional relational databases like MySQL and PostgreSQL remain essential for many applications.

Implications

- This indicates their widespread adoption and strong community support.
- This trend suggests a growing need for flexible and scalable data storage solutions to handle modern data workloads.
- This reflects the continued importance of structured data and ACID compliance in various industries.

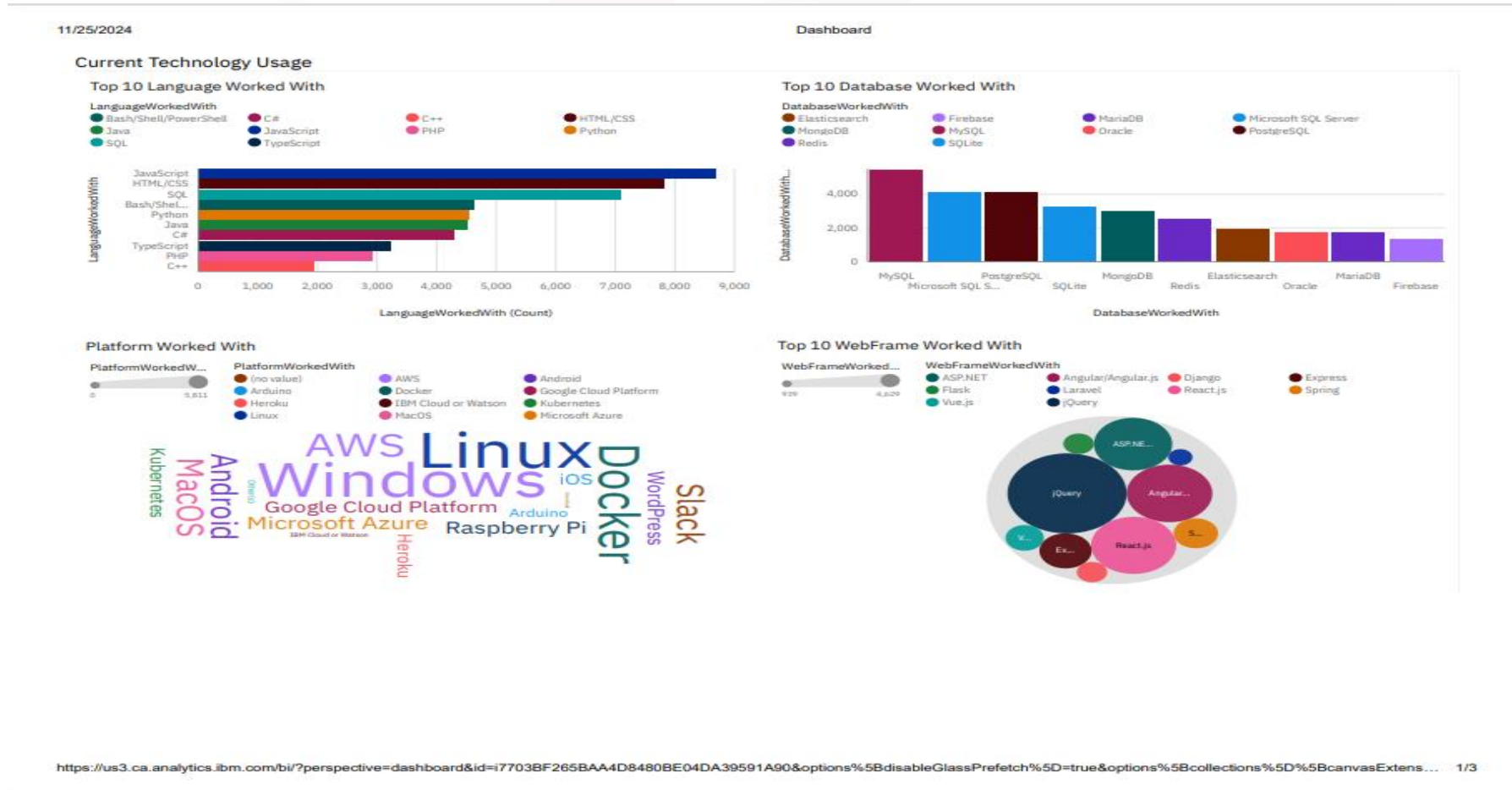
DASHBOARD



The GitHub link of the Cognos analytics dashboard used for this project.

<https://github.com/Bright180/Bright180>

DASHBOARD TAB 1



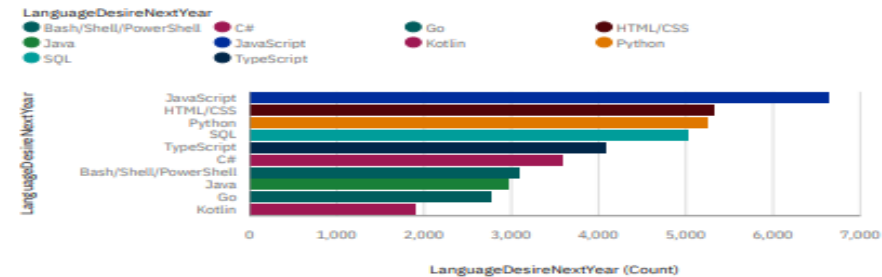
DASHBOARD TAB 2

11/25/2024

Dashboard

Future Technology Trend

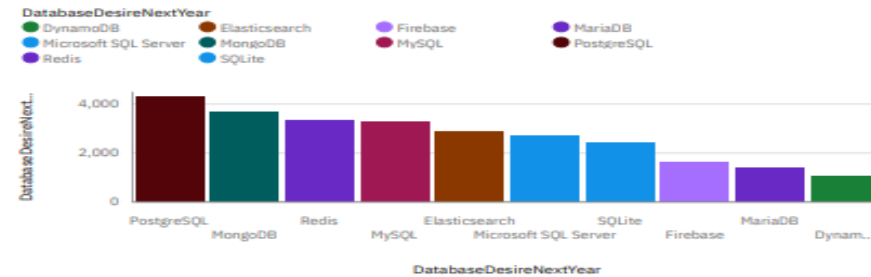
Top 10 Language Desire Next Year



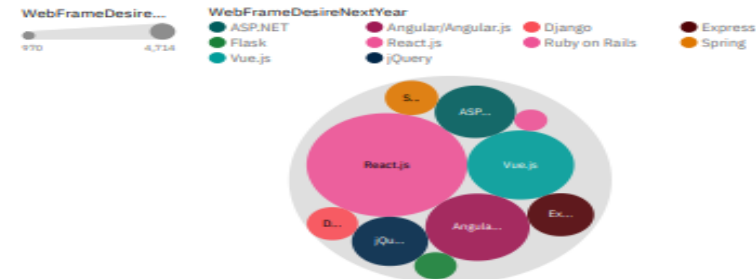
Platform Desire Next Year.



Top 10 Database Desire Next Year

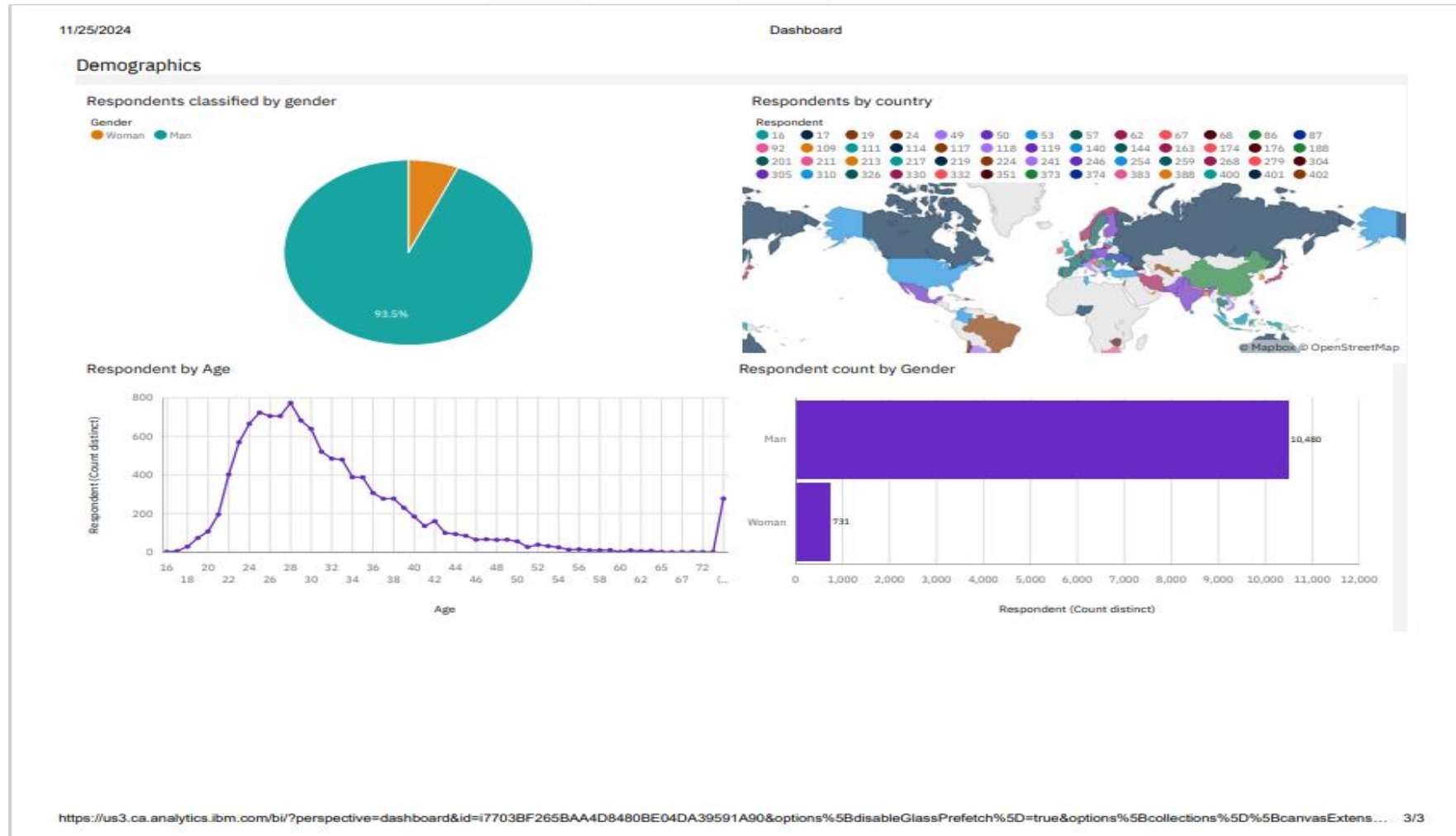


Web Frame Desire Next Year



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DASHBOARD TAB 3



DISCUSSION



- **Python's Versatility:** Python's simplicity and versatility make it suitable for a wide range of applications, from data science and machine learning to web development and automation.
- **NoSQL's Rise:** The increasing complexity of modern data and the need for scalability have fueled the growth of NoSQL databases.
- **Cloud Computing Dominance:** Cloud platforms offer flexibility, scalability, and cost-effectiveness, making them a preferred choice for businesses of all sizes.
- **Diverse Developer Community:** The growing diversity of developers from different countries and backgrounds brings diverse perspectives and innovative solutions to the industry.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Python's Continued Dominance
- NoSQL's Growing Importance
- Cloud Computing as the Future

Implications

- Python's popularity is likely to persist, making it a valuable skill for developers.
- Organizations should consider adopting NoSQL databases to address the challenges of modern data management.
- Cloud platforms are transforming the way applications are developed and deployed.

CONCLUSION



- **Stay Updated:** Keep up with the latest trends and technologies to remain competitive.
- **Embrace Diversity:** Foster a diverse and inclusive tech community.
- **Prioritize Skill Development:** Continuously learn and improve your skills in programming languages, databases, and cloud technologies.

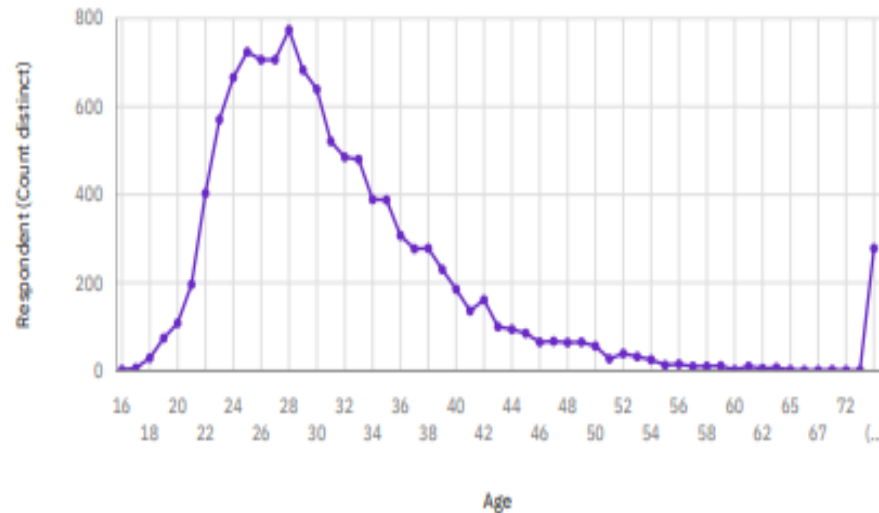
By understanding these trends and their implications, organizations can make informed decisions about technology adoption and talent acquisition.

APPENDIX

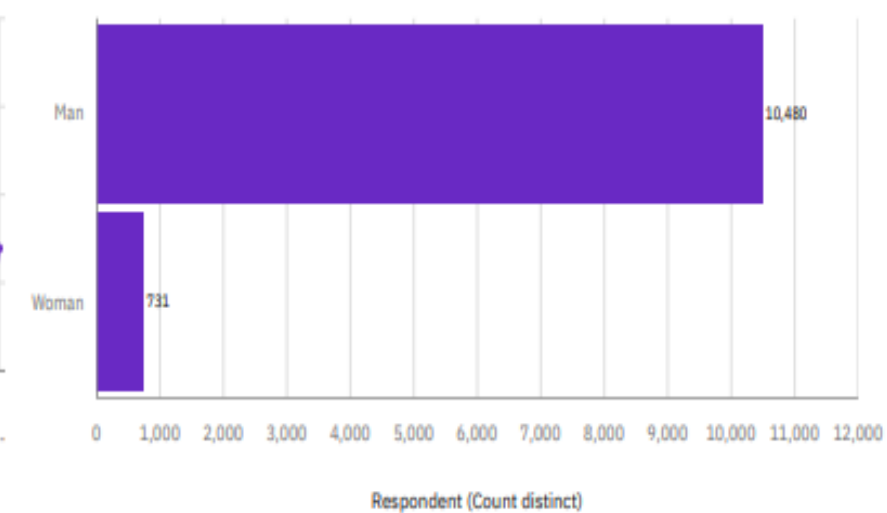
Demographic Trends:

- **Gender Distribution:** The majority of respondents are male.
- **Age Distribution:** Most respondents are between the ages of 25 and 44.
- **Global Representation:** Respondents are from a wide range of countries.

Respondent by Age



Respondent count by Gender



JOB POSTINGS

