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OUTLINE



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



- Analysis Goals
- Methodology
 - Data Collection
 - Data Visualization
 - Data Analysis
- Result Findings
- Result Interpretations
- Conclusions

INTRODUCTION



- Stack Overflow performs an annual survey for current and aspiring developers.
- There are roughly 90,000 developers while this survey had roughly 11,000 participants.
- We want to see trends to predict what direction developers are headed.

METHODOLOGY



- Data Collection
 - APIs
 - Web Scraping
- Data Wrangling
 - Clean Up Our Data
 - Duplicates Entries, Empty Rows, Missing Values, Normalize Data
- Exploratory Data Analysis
 - Distribution Charts
 - Deal With Outliers
 - See Correlations
- Data Visualizations
 - Show Various Plots And Charts To Gather Valuable Insights
- Dashboard Presentation

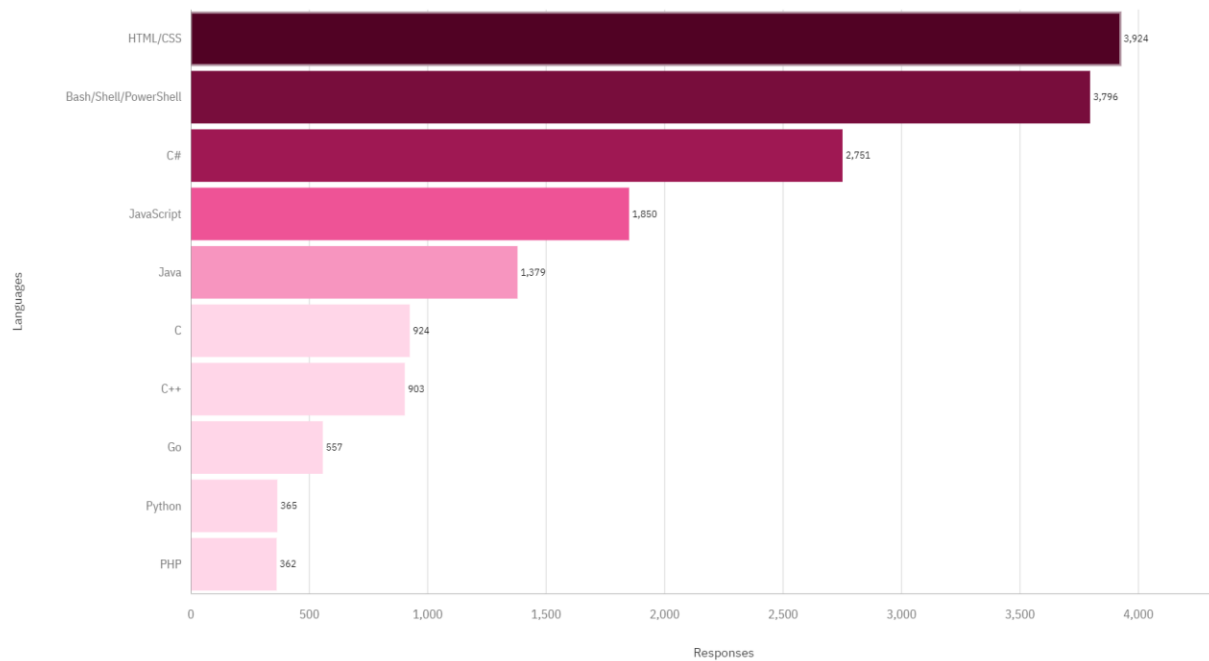
RESULTS



PROGRAMMING LANGUAGE TRENDS

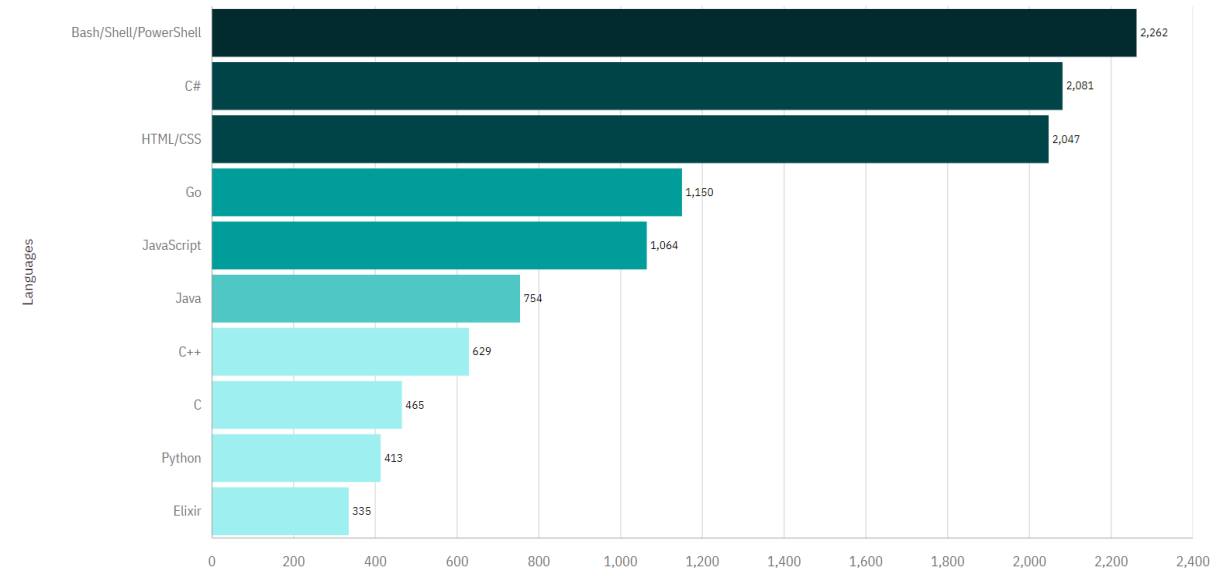
Current Year

Top 10 Languages Worked With



Next Year

Top 10 Languages To Learn For Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Bash/Shell/Power Shell Seems to be trending as a popular language to learn for the future.
- GO is gaining new interest for next year.
- Elixir is making its way into the interest of developers.

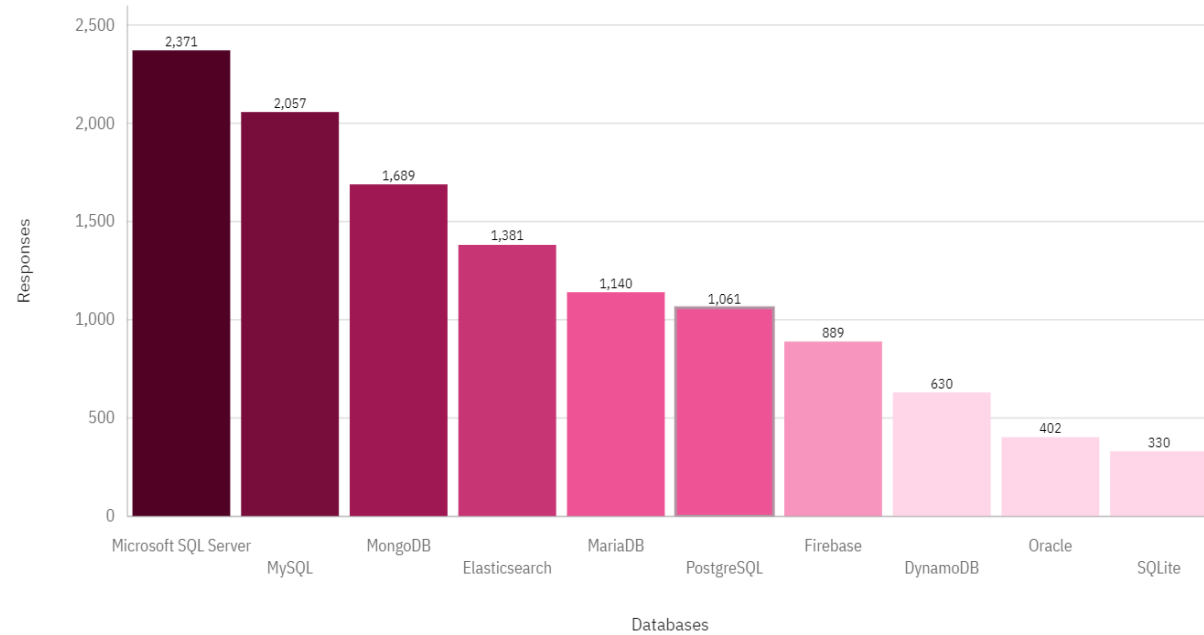
Implications

- Web based programming languages seem to capture the interest of future developers.
- Python is staying relevant due to its importance in data science.
- Older languages such as C# are losing interest.

DATABASE TRENDS

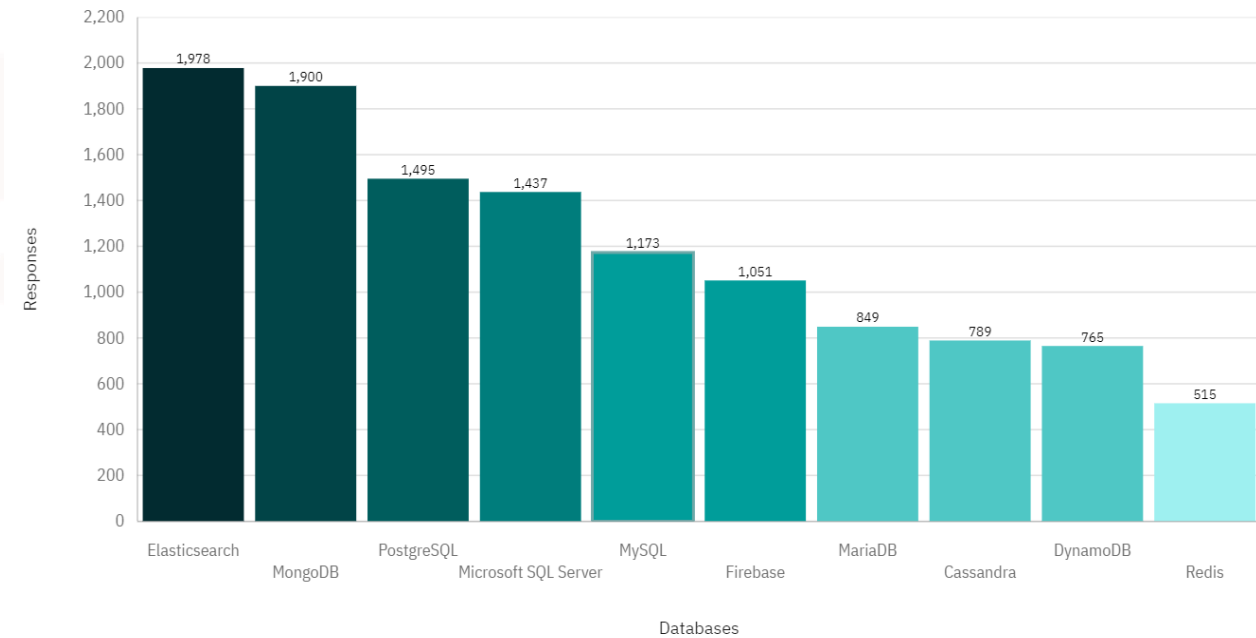
Current Year

Top 10 Databases Worked With



Next Year

Top 10 Databases To Learn For Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Elastic Search is Trending Upwards to #1
- MS SQL and MySQL are gradually losing interest
- Oracle and SQLite have dropped out of the top 10

Implications

- Open source databases are trending upward
- Commercial and paid databases are losing interest from developers
- Relation databases remain at the top for developers

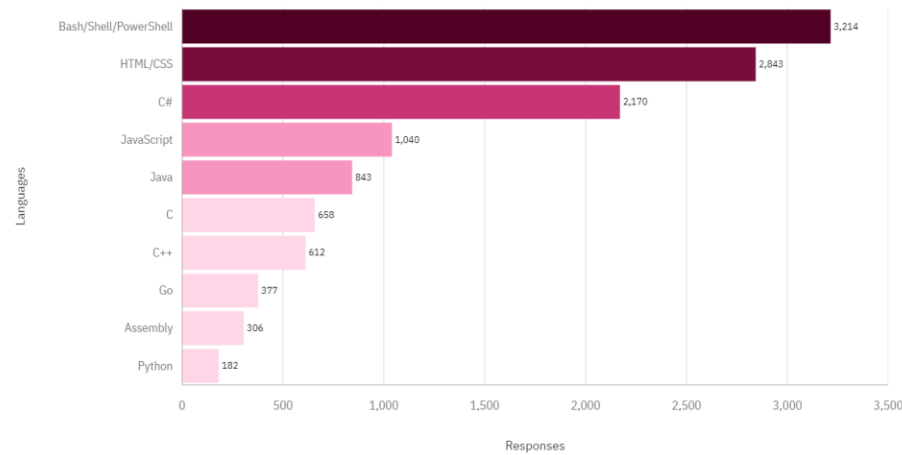
DASHBOARD



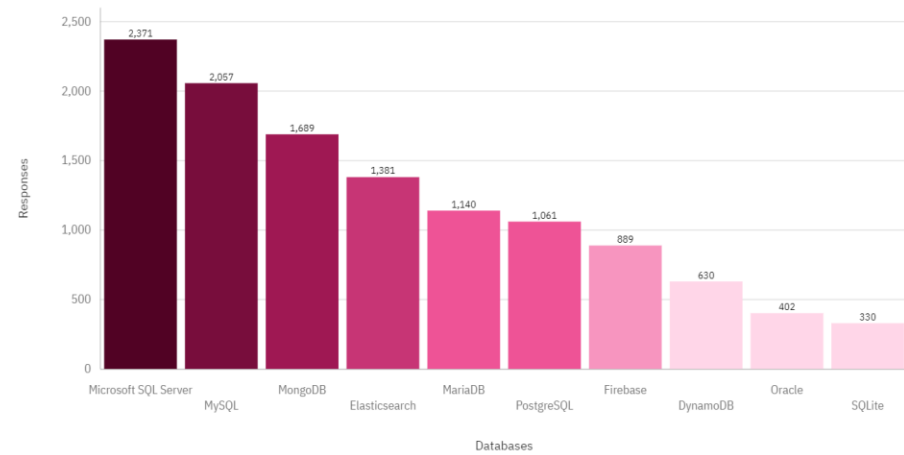
[Github: Dashboard](#)

Current Technology Usage

Top 10 Languages Worked With



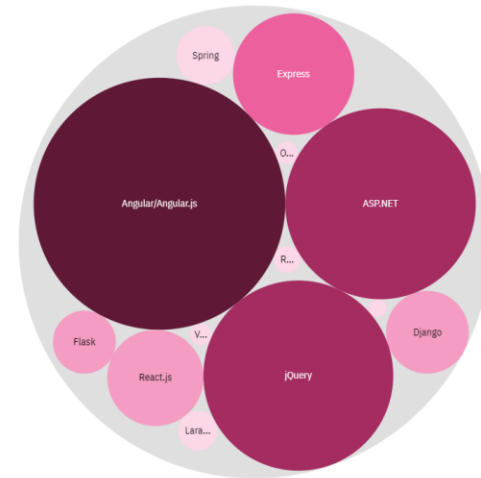
Top 10 Databases Worked With



Top 10 Platforms Worked With

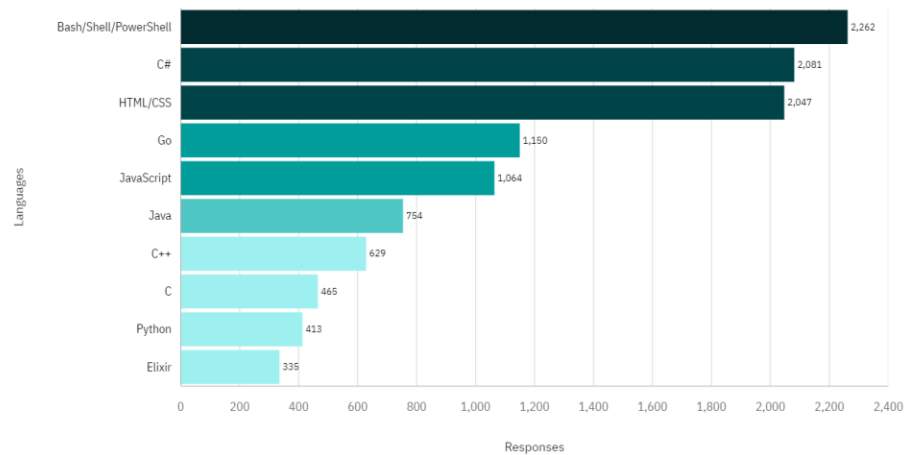


Top 10 Web Frameworks Worked With

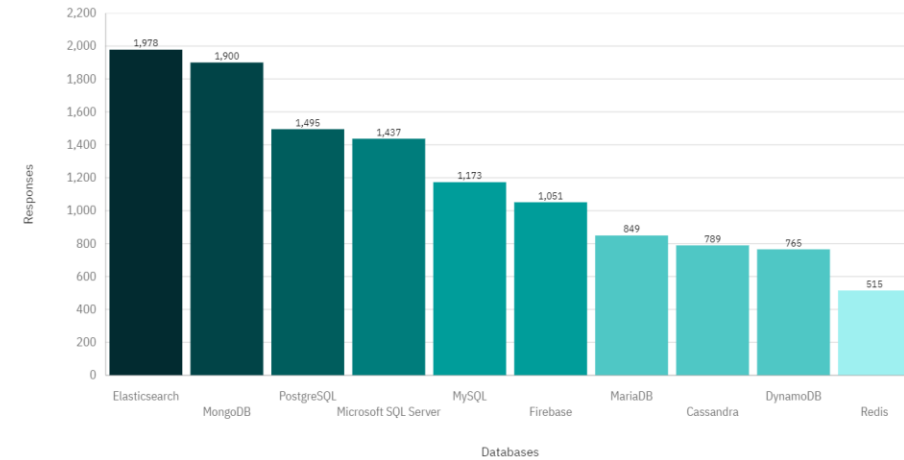


Future Technology Trends

Top 10 Languages To Learn For Next Year



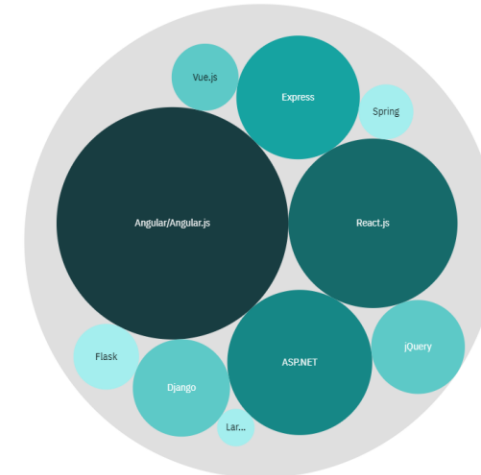
Top 10 Databases To Learn For Next Year



Most Desired Platforms To Learn For Next Year



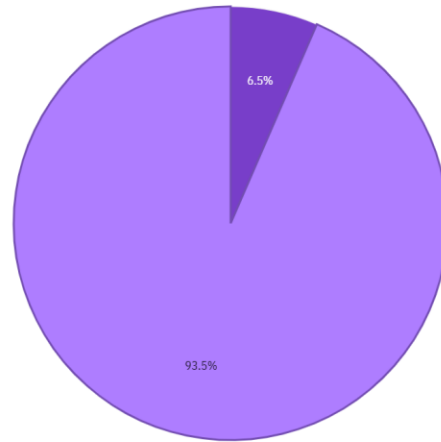
Top 10 Web Frames To Learn For Next Year



Demographics

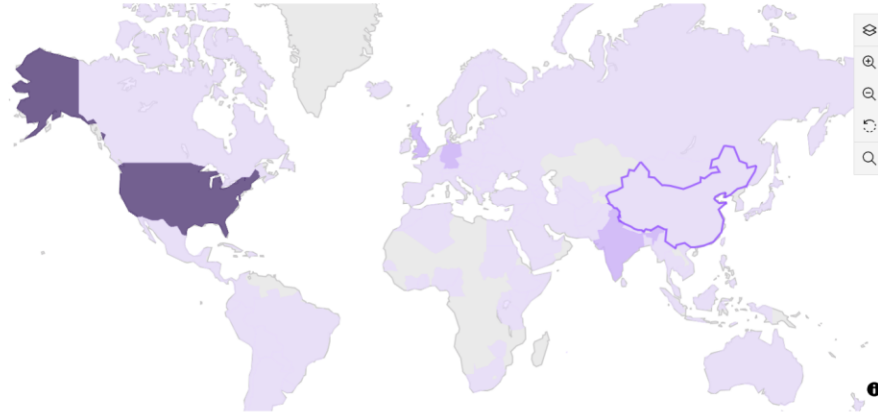
Gender of Respondent

Gender
● Woman
● Man

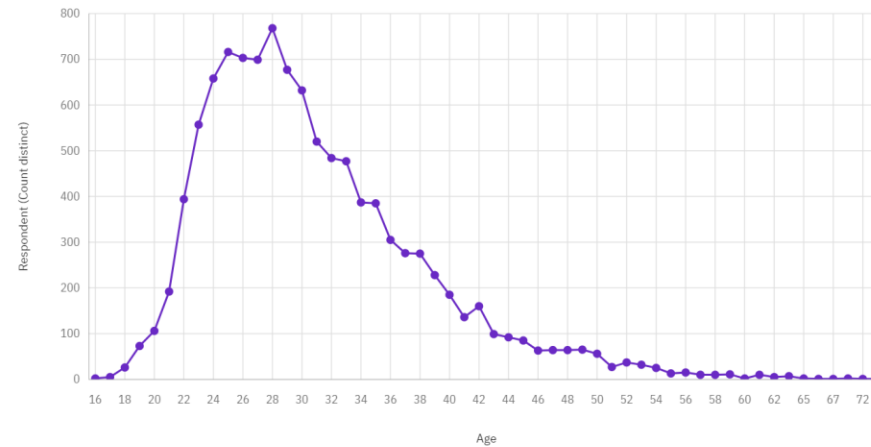


Respondent for Country regions

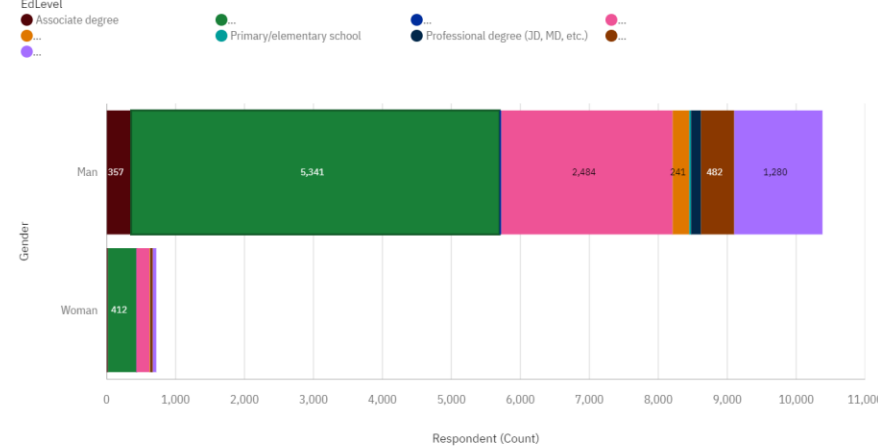
Respondent (Count)
1 3,049



Respondent by Age



Education Level by Gender



DISCUSSION



- A majority of the respondents are between 24-35 years old.
- This could cause the results to show favor for newer technology.
- This could also explain the reason for a popular trend in web based programming and open source databases.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Web based languages will remain a top choice to learn.
- Over 85% of developers are under the age of 40
- Developers are mostly located within first world countries

Implications

- Web based technology is pushing out traditional technologies.
- The age distribution explains the popularity of newer technologies.
- First world country citizens will likely have the finances and opportunity to acquire a college degree.

CONCLUSION

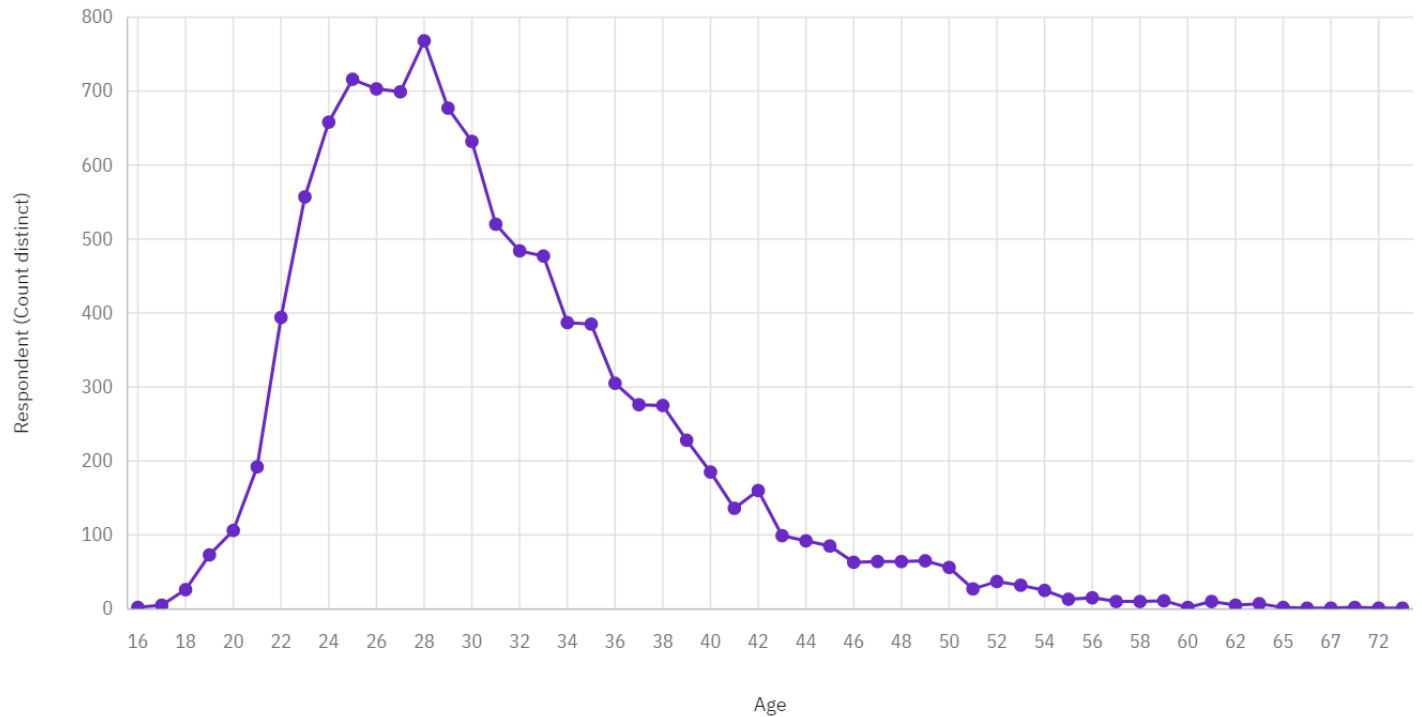


- Web based languages and non-relational databases are important technologies to learn for the future.
- Languages to Learn
 - Bash/Shell/Powershell
 - HTML
 - JavaScript
- Databases to Learn
 - Elasticsearch, MongoDB, PostgreSQL

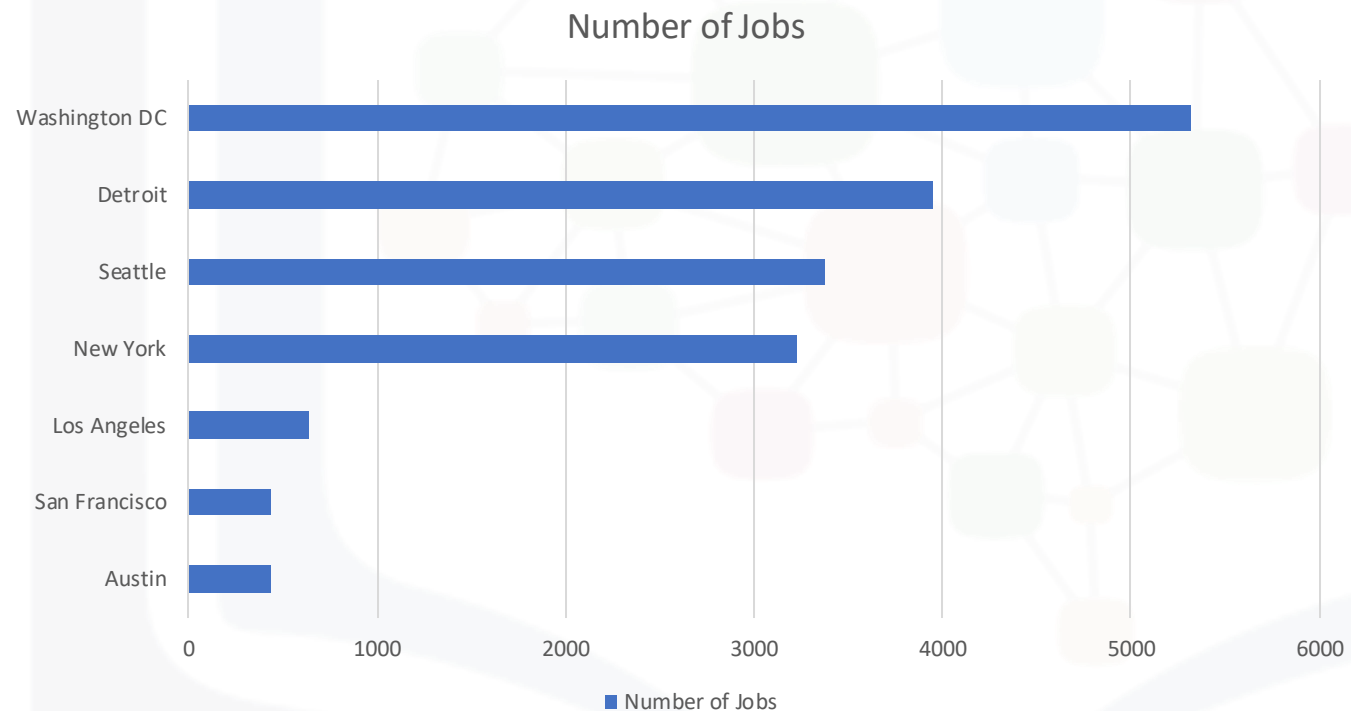
APPENDIX



Respondent by Age



JOB POSTINGS



POPULAR LANGUAGES

