



Tech Industry Respondents Analysis

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OUTLINE



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EXECUTIVE SUMMARY



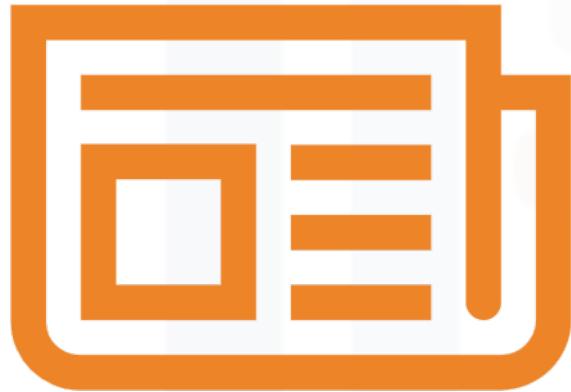
- The survey provides comprehensive insights into the demographics, employment, and work preferences of Tech industry respondents.
- It includes variables related to education, job satisfaction, salary, coding practices, location and various personal attributes.
- This summary highlights key findings and trends based on the data analysis.

INTRODUCTION



- This report analyzes a response of Technologist including developers and none developers to understand their professional background, work environment, and technologies they uses
- The goal is to identify trends, characteristics, and opportunities within the technology industries and communities.
- The survey dataset collected by Job-API which was dived into different subset for precise analysis
- Data source is Stacked Overflow Developer Survey

METHODOLOGY



- The analysis was conducted using statistical and data visualization techniques
- Data Collection: by APIs scrapping and loading
- Data Cleaning: Removing duplicates, handling missing values and outliers by Python
- Data Exploration: Initial examination of data distributions and correlations by Pands.
- Statistical Analysis: Performing descriptive and inferential statistics by spicy, Numpy libraries.
- Visualization: Creating charts and dashboards to represent findings by Ibm cogno,Matlab, and Seaborn

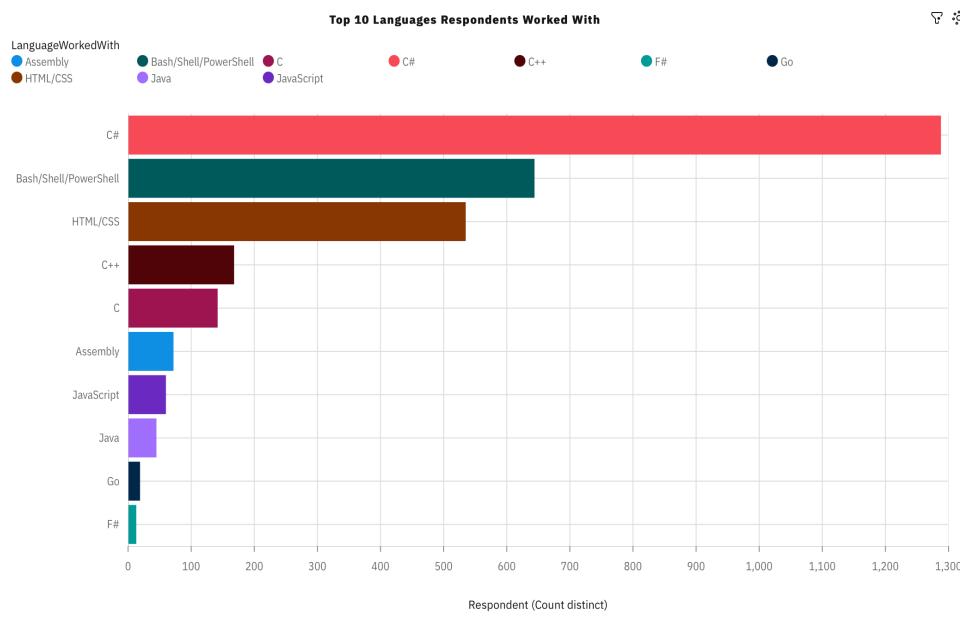


RESULTS

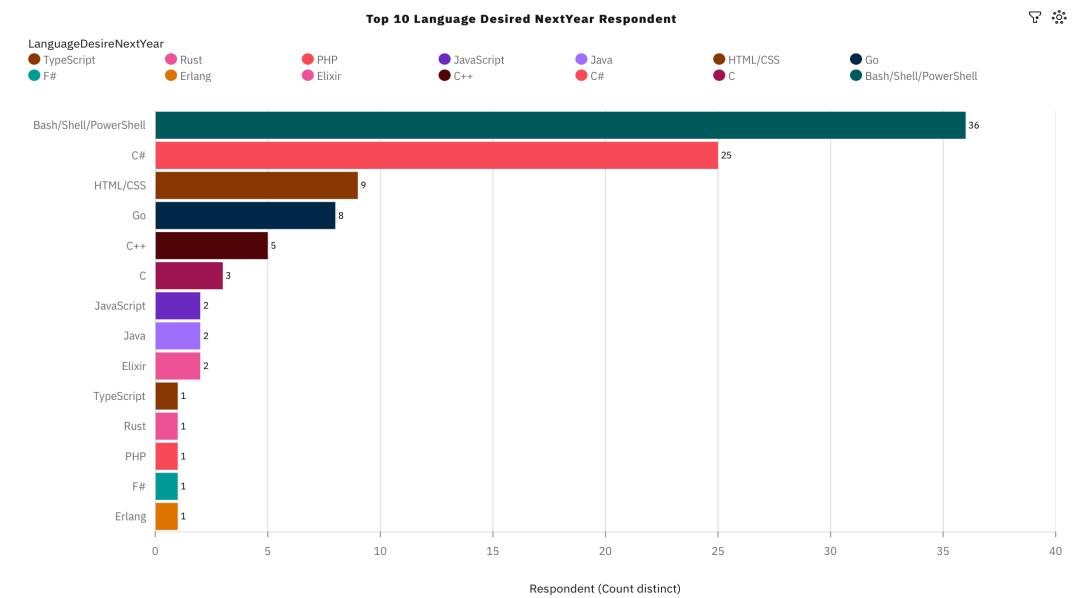
- Country United Republic of Tanzania has the highest Average Age but is ranked has only Respondent.
- Country United States has the highest Respondent but is ranked 16 in Average Age.
- The Highest Education Level is Bachelor's degree (BA, BS, B.Eng., etc.)
- The amount of working hours its not correlated to Age
- The older the age the higher Salary
- Most respondents were males
- Newcomers should focus on obtaining a bachelor's degree, recognize that salary tends to increase with age, and understand that working hours do not impact age. Additionally, Scripting type is the game changer like Python, Java Script is highly recommended.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

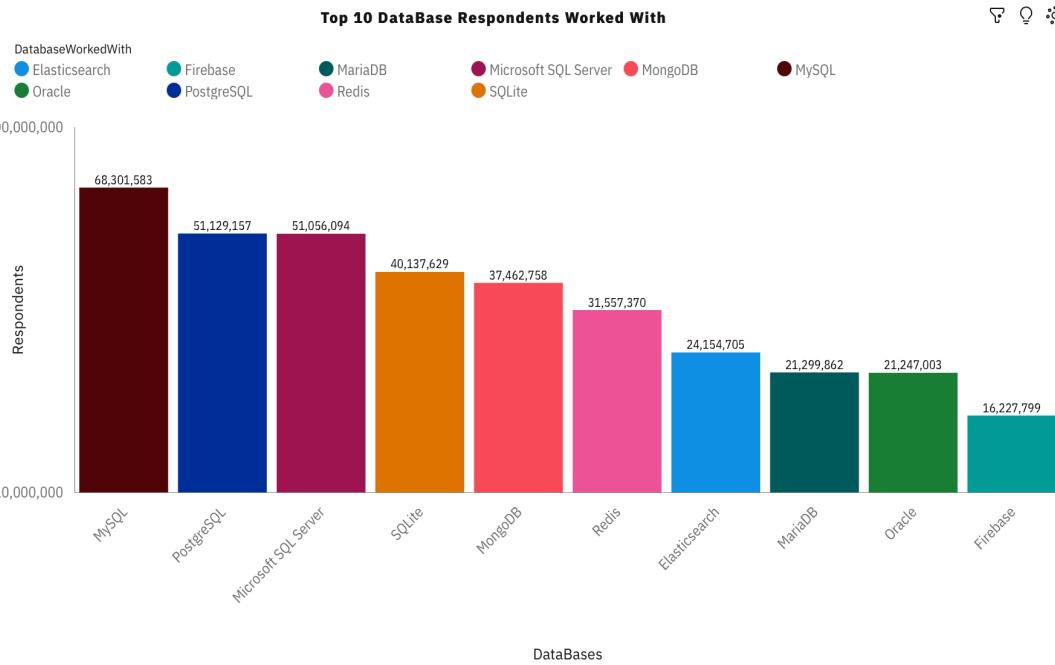
- C# is the most frequently occurring category of language to worked with 43.1 % in total
- HTML/CSS Language is the most worked With 47% to MySQL compared to 22% for Microsoft SQL Server
- WebFrame desired is Angular/Angular.js has the highest total Respondent due to Language worked wiith Bash/Shell/PowerShell

Implications

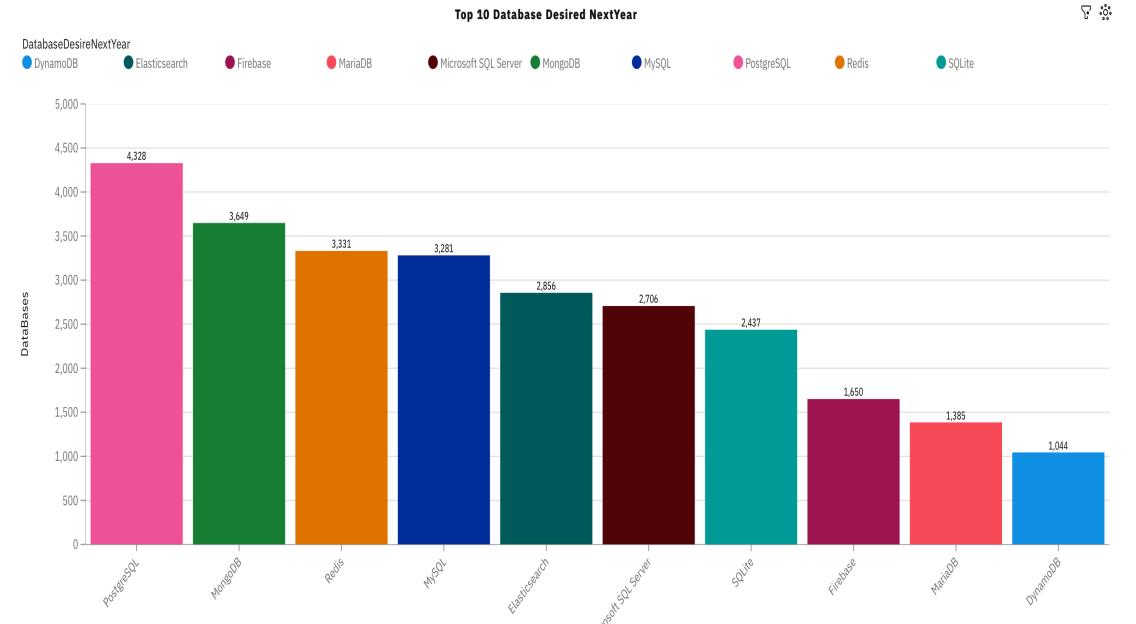
- The high number of respondents working with JavaScript, combined with its continued prominence in desired languages
- Scripting language like Python have the highest salaries but are not the most work with
- WebFrame desire next year React.js has the highest total Respondent

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- The most database worked with is MySQL contributed the most at nearly 17 million.
- Microsoft Azure the most worked platform
- MongoDB and PostgreSQL are highly desired by respondents

Implications

- The high demand for Elasticsearch, particularly among users of Bash/Shell/PowerShell, suggests organizations should adopt and enhance support for Elasticsearch
- Companies should prioritize Linux-based systems and Docker containerization to remain competitive and appealing to developers
- SQL skills are essential; organizations need to provide training to maintain demand and efficiency

DASHBOARD



https://github.com/Majeedraheem/Final_Project-

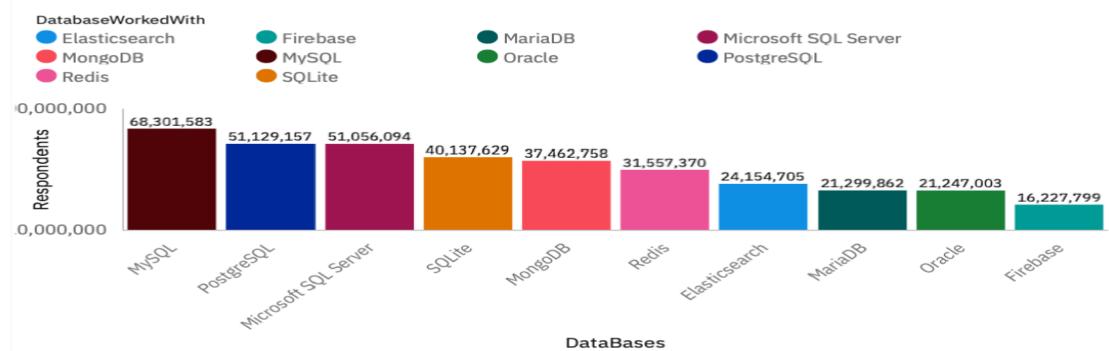
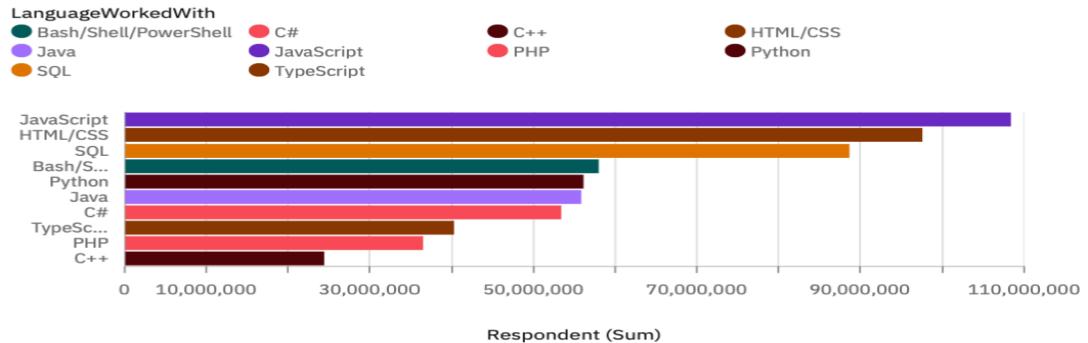
Current Technologies

Current Technology Usage

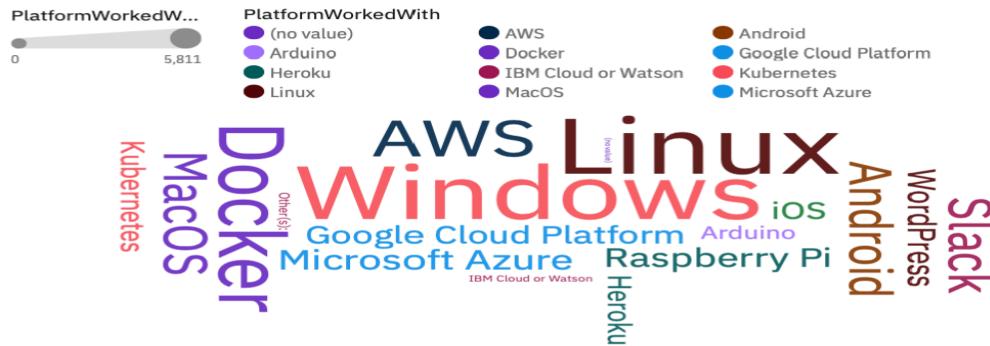
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Current Technology Usage

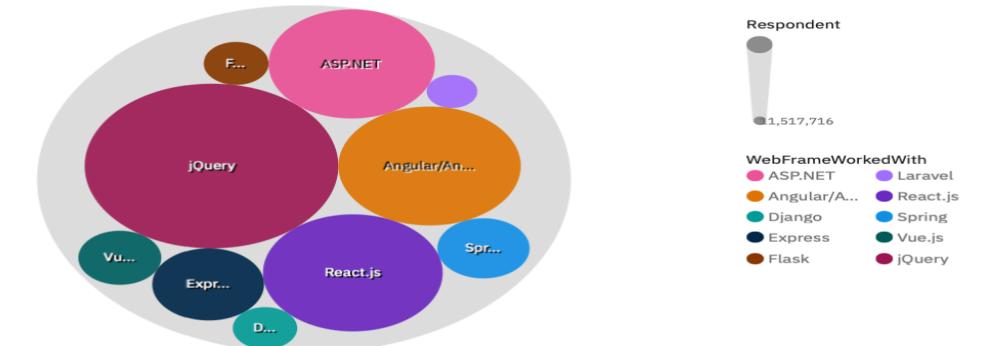
Top 10 Languages Respondents Worked With



Platform Respondents Work With



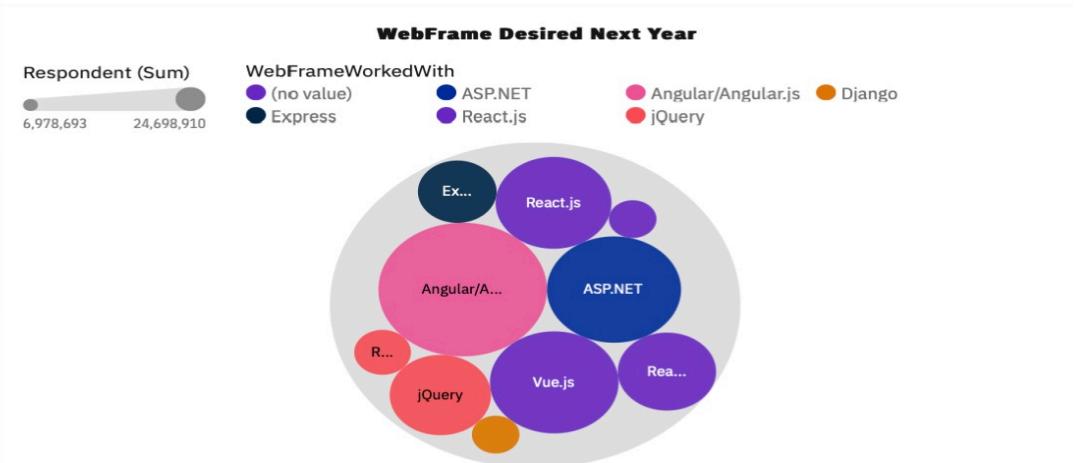
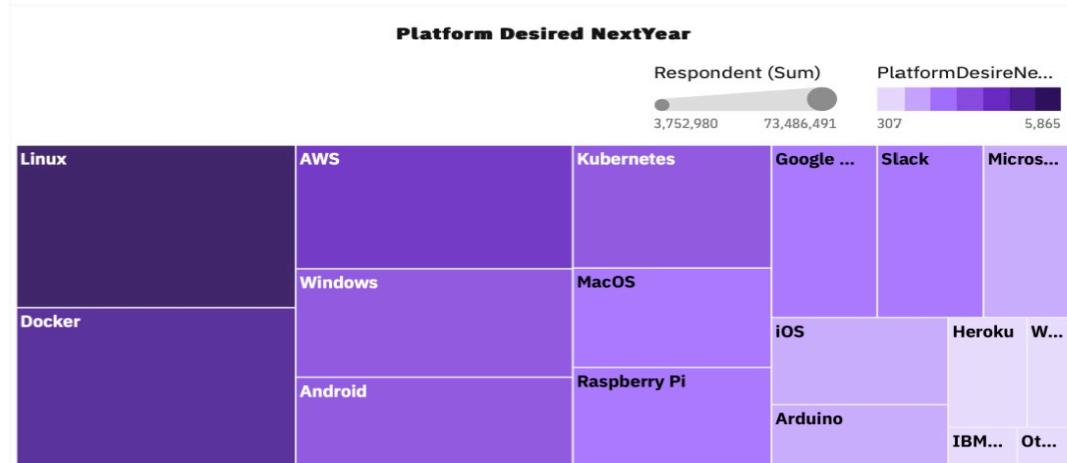
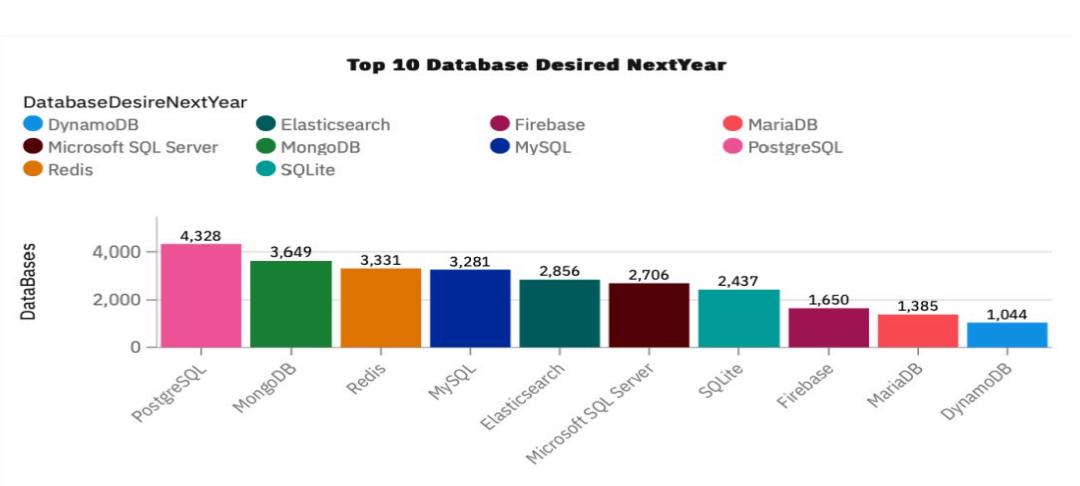
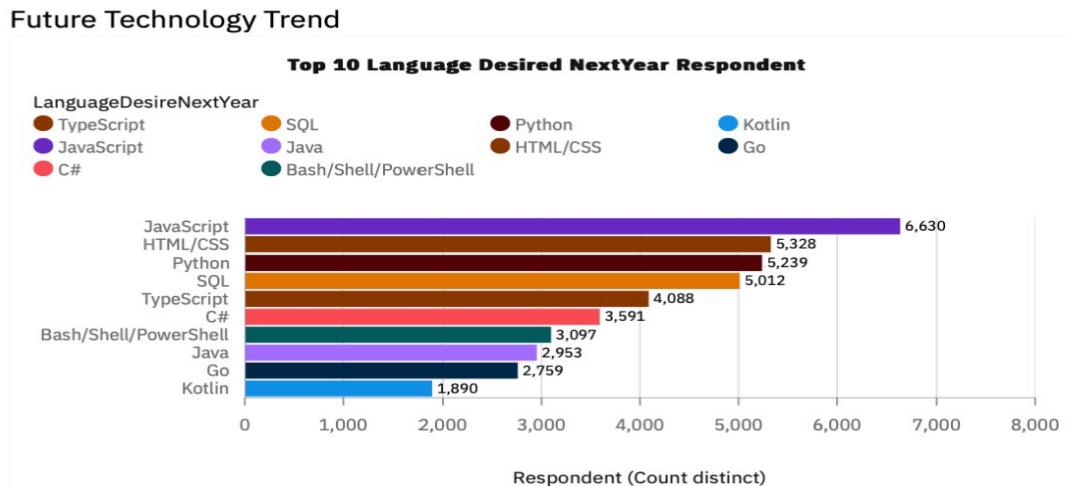
Top 10 WebFrame Respondents Work with



Future Technologies

Future Technology Trend

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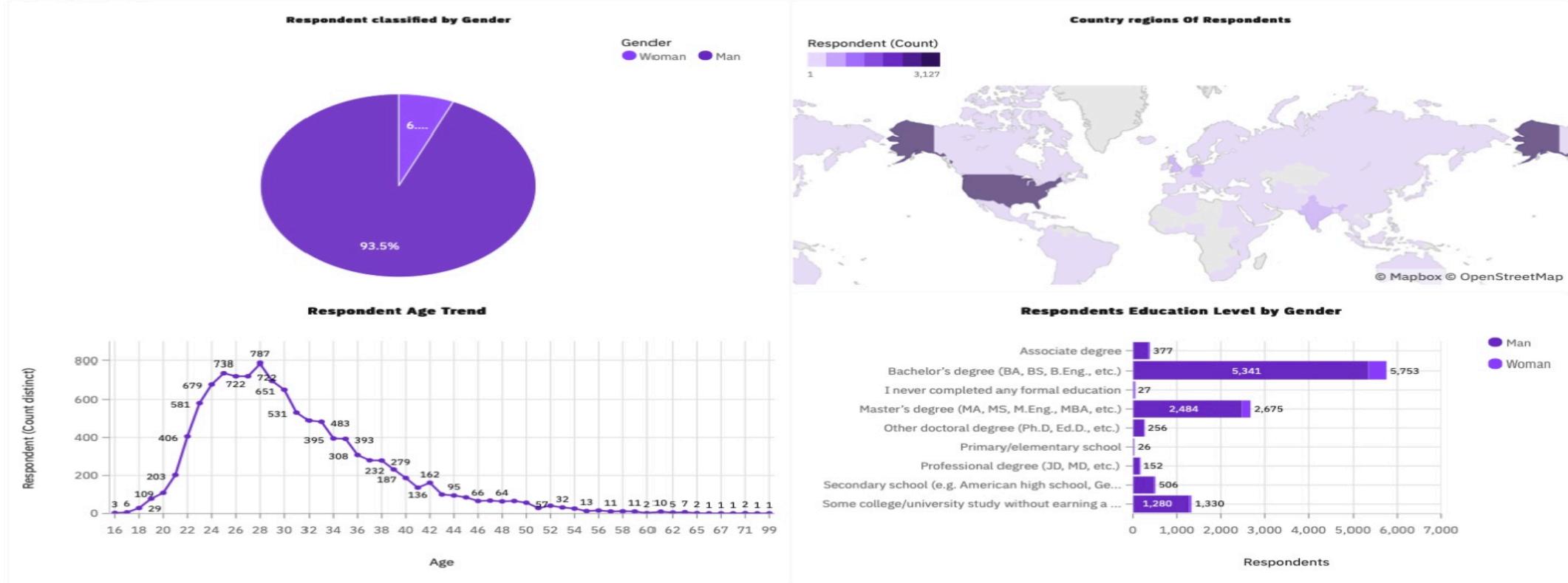


Demographic

Demographics

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Demographics



DISCUSSION



- Would work from home, office or coffee shop matter
- Would it make personal impact
- Does the salary influenced by gender

OVERALL FINDINGS & IMPLICATIONS

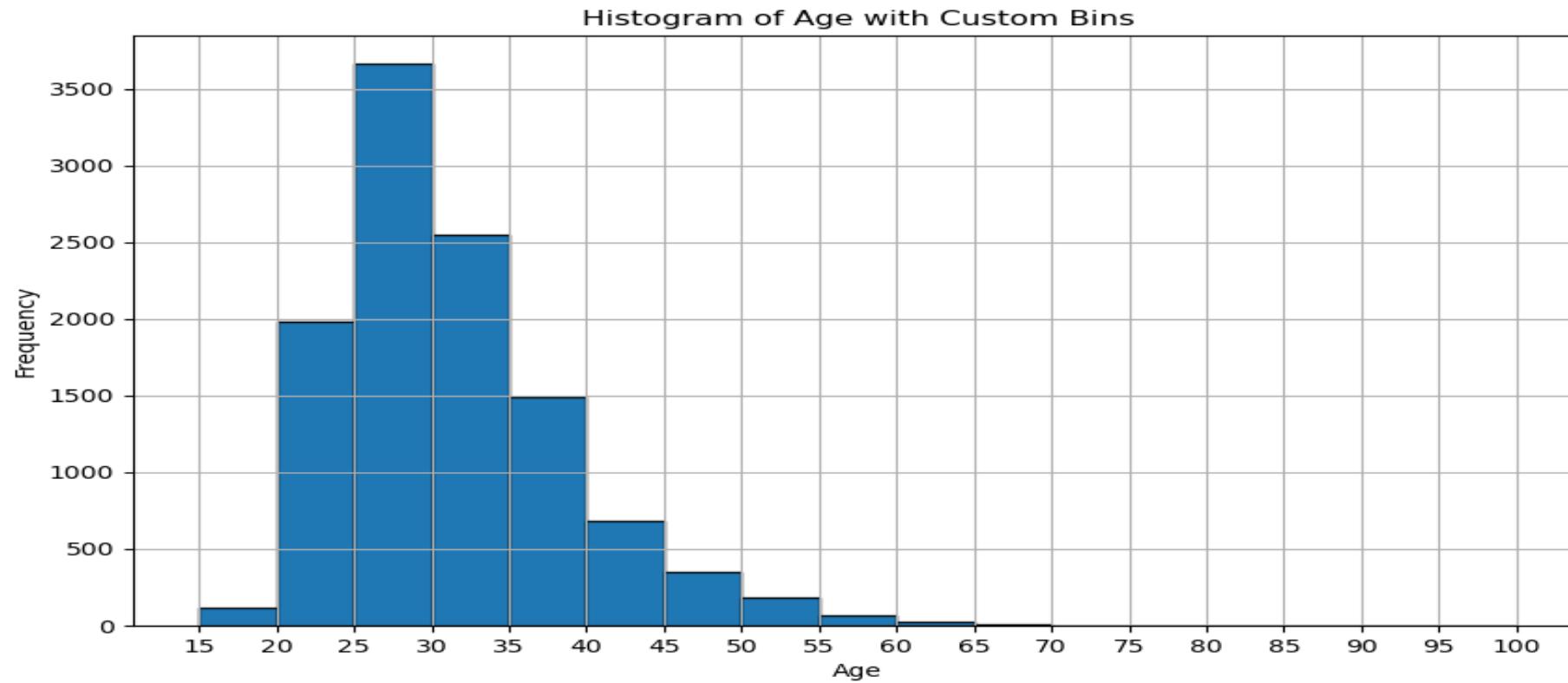
Findings

- Desired Database is Elasticsearch has the highest Respondent due to Language worked WithBash/Shell/PowerShell.
- For Respondent, the most significant values of Platform Desired Next Year are Linux and Docker
- Language Desired for Next Year is SQL

Implications

- The high demand for Elasticsearch, particularly among users of Bash/Shell/PowerShell, suggests organizations should adopt and enhance support for Elasticsearch
- Companies should prioritize Linux-based systems and Docker containerization to remain competitive and appealing to developers
- SQL skills is essential organizations need provide training to maintain demand and competition

The Age Distribution

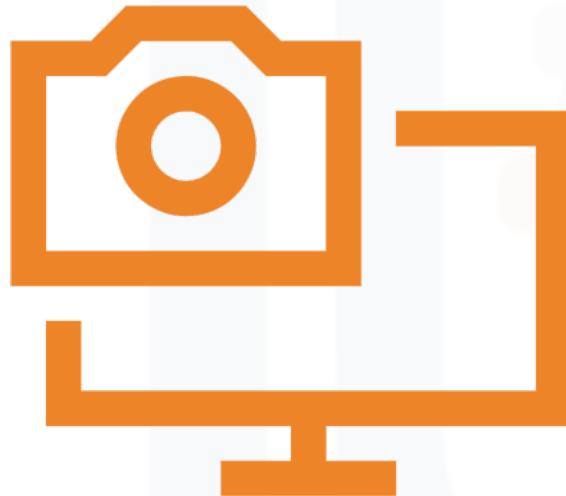


CONCLUSION



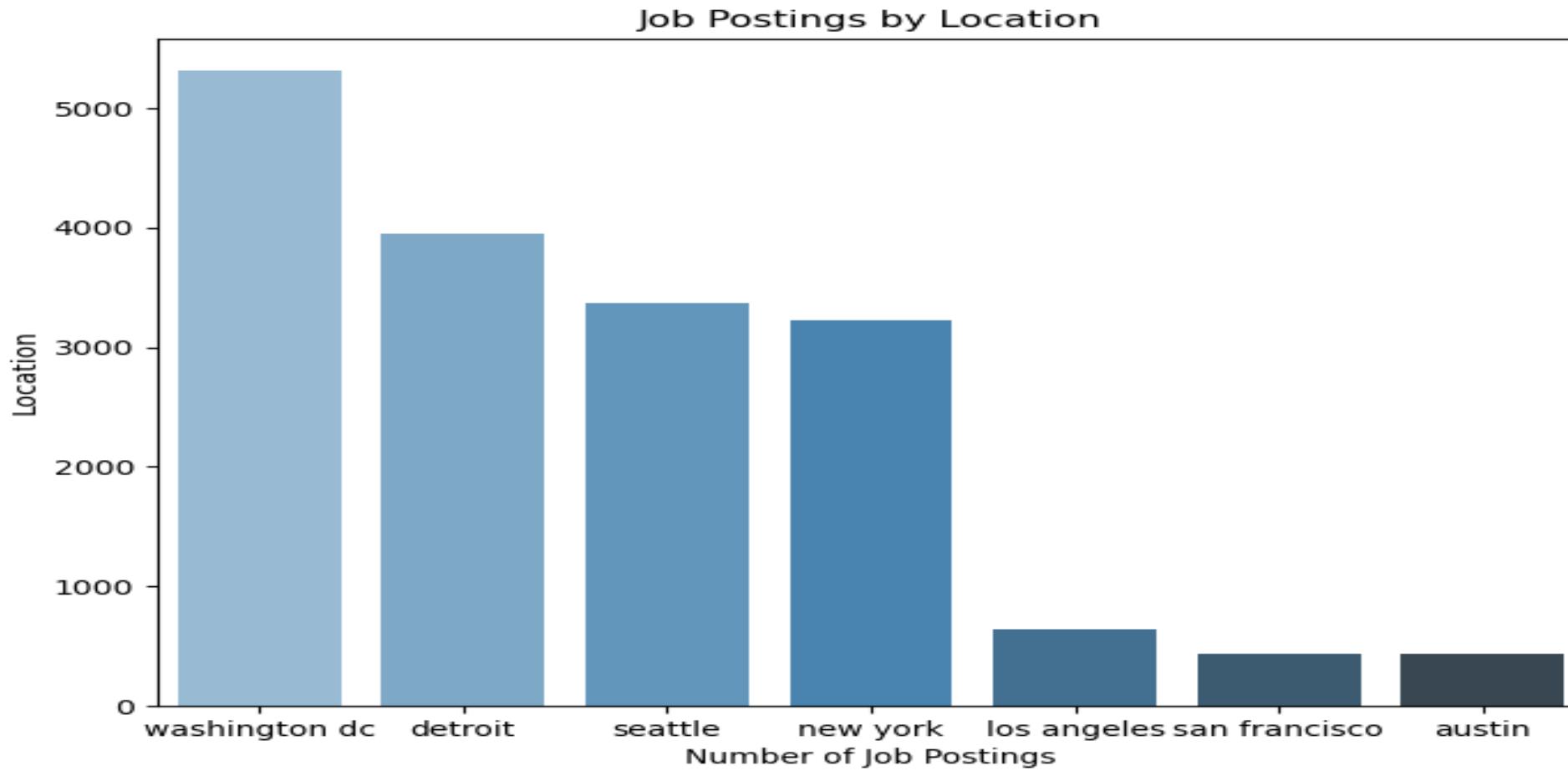
- **Average Salary Comparison:**
 - Men earn an average of \$74,488 annually, while women earn \$57,692.
- **Age Distribution:**
 - The average age of respondents is 30 years.
- **Language Demand:**
 - Typescript and JavaScript are highly desired. Newcomers should focus on mastering these languages to boost career prospects.
- **Platform Preferences:**
 - Skills in Linux, Docker, and popular platforms like Android are in demand. Newcomers should gain proficiency in these areas to stay competitive.
- **Education:**
 - Most respondents hold a bachelor's degree. Aspiring developers should aim for at least a bachelor's degree to align with industry standards.
 - Emphasizing skills in Typescript, JavaScript, Linux, Docker, and obtaining a bachelor's degree will help newcomers build a strong foundation for a successful career in software development.

APPENDIX

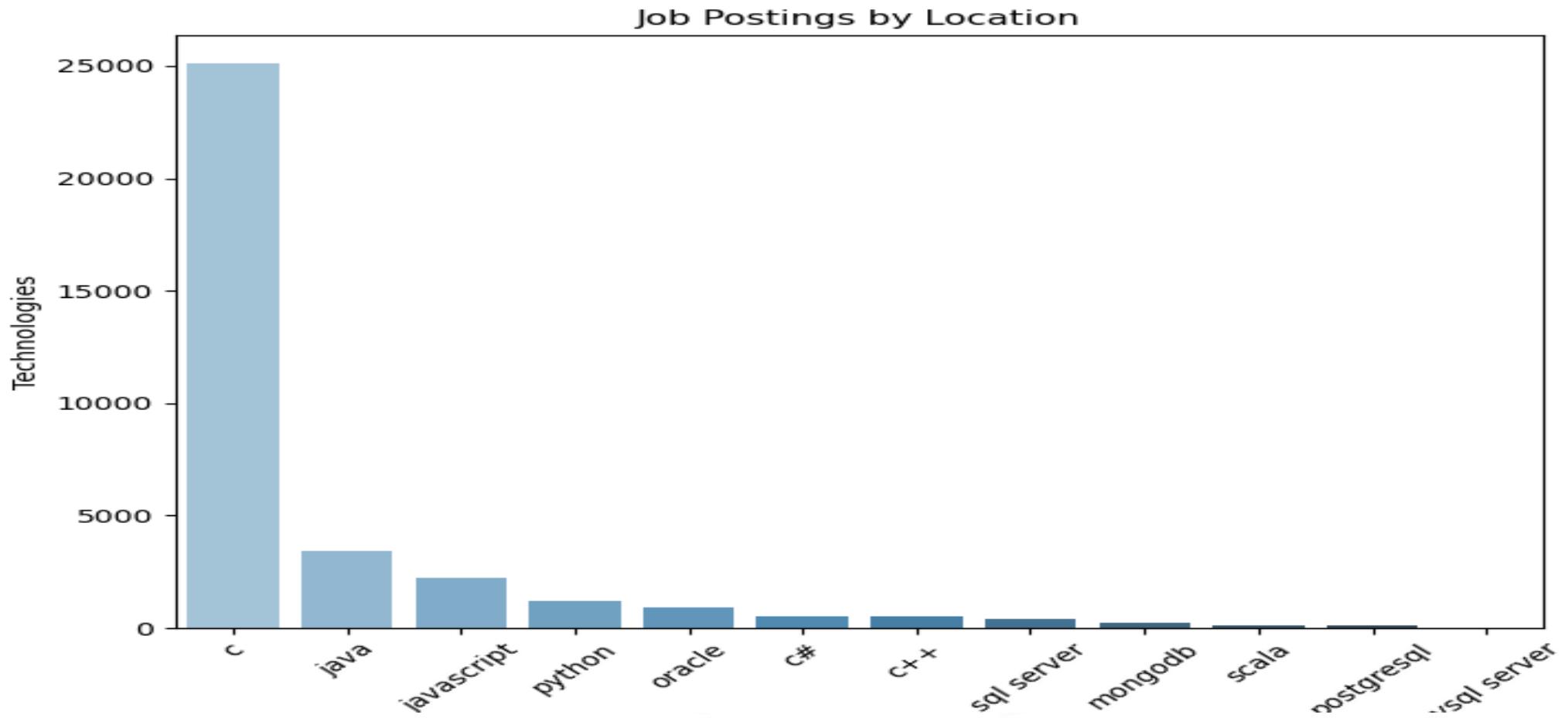


- Compression graph for annual compensation with and without outlier
- Work location Matter
- Annual salary compression with & without outliers

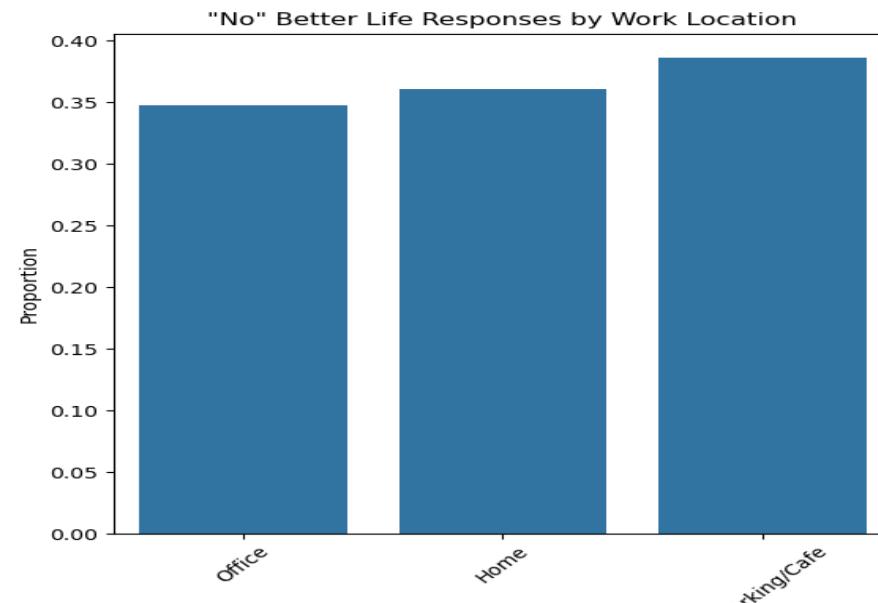
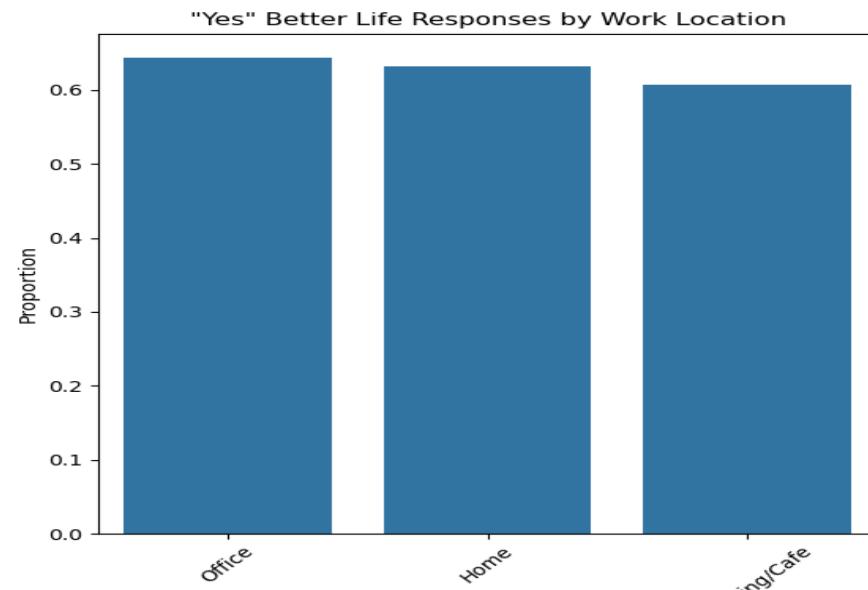
JOB POSTINGS



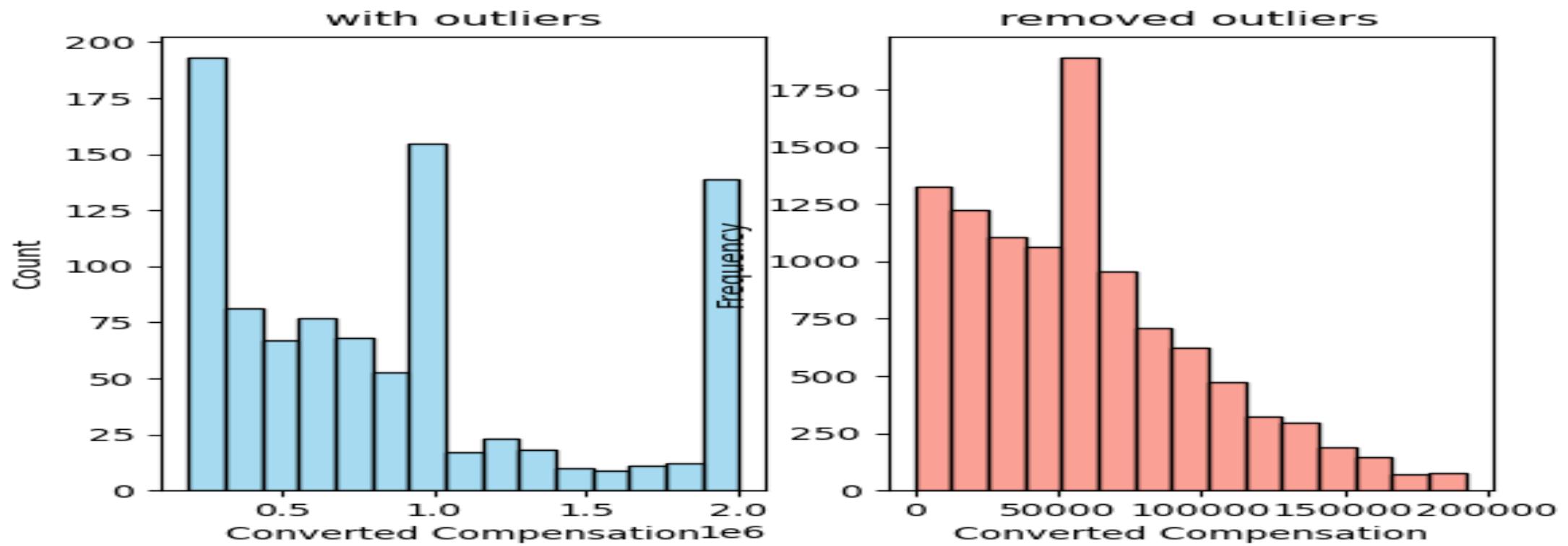
POPULAR LANGUAGES



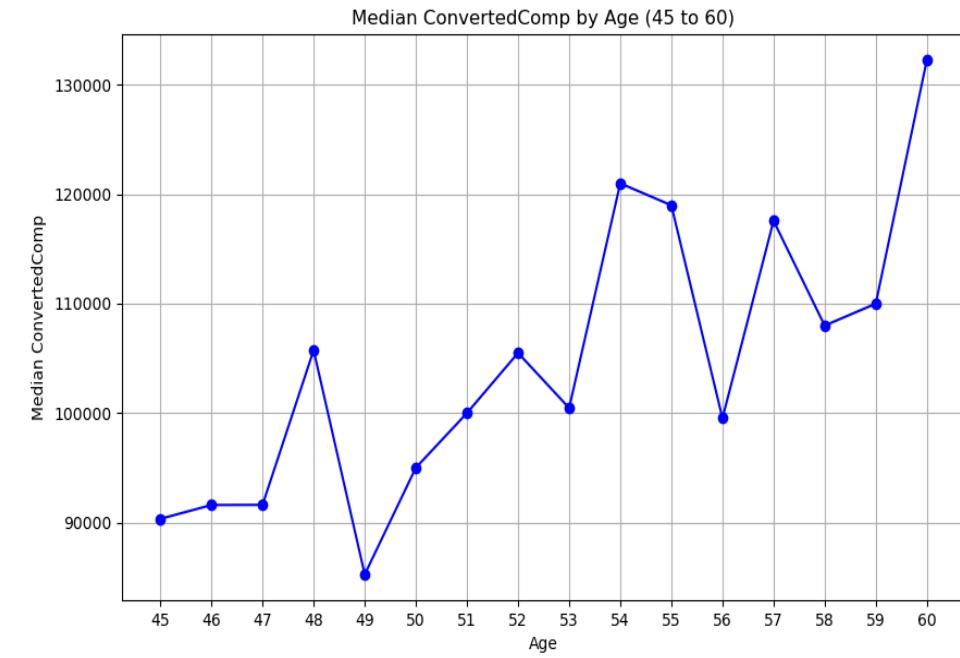
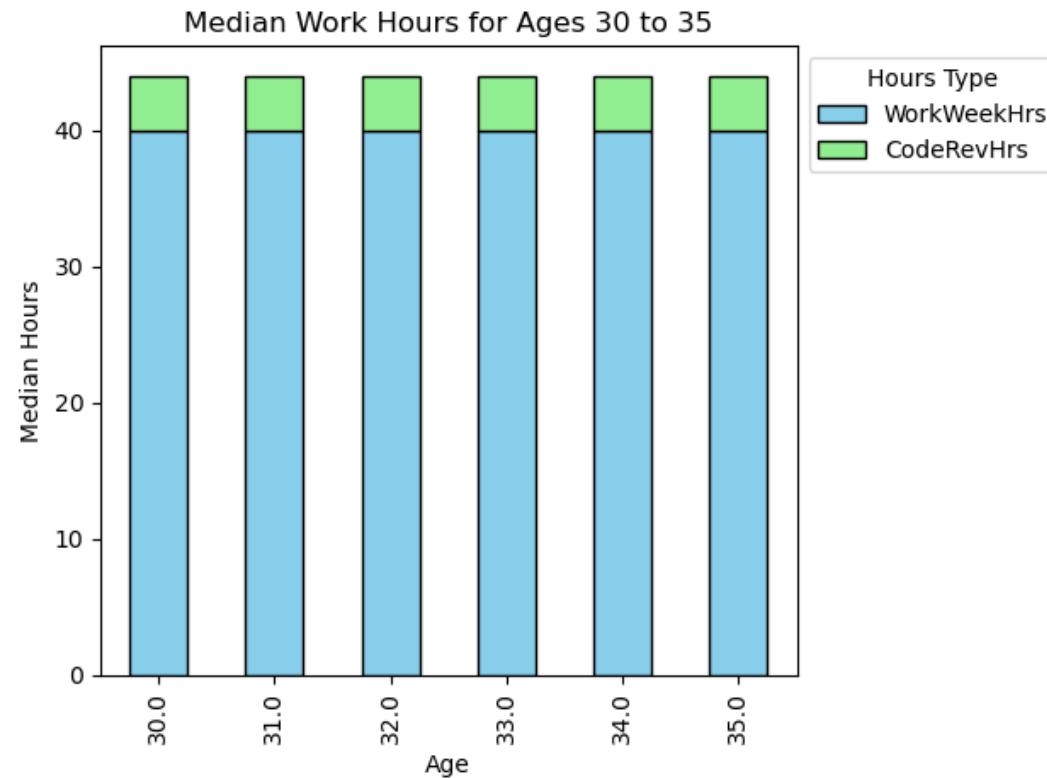
Work location Matter



Annual salary compression with & without outliers



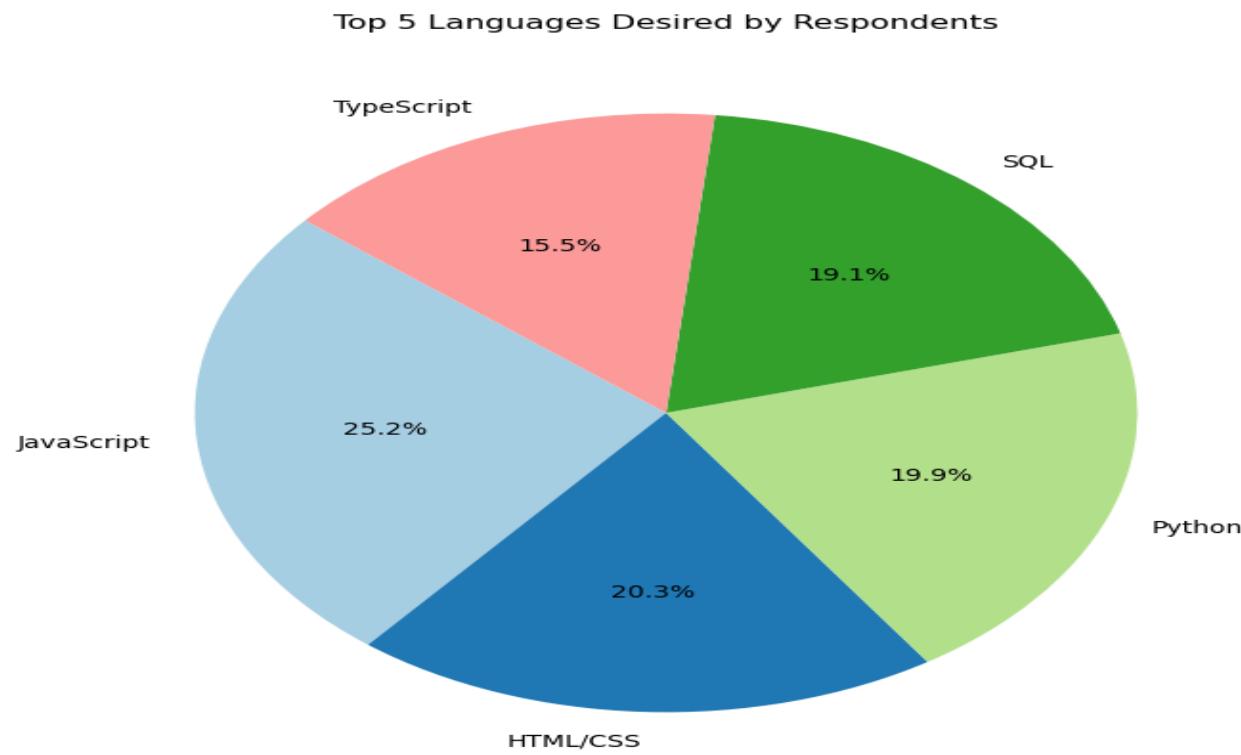
Age is correlated to salary annual compensation



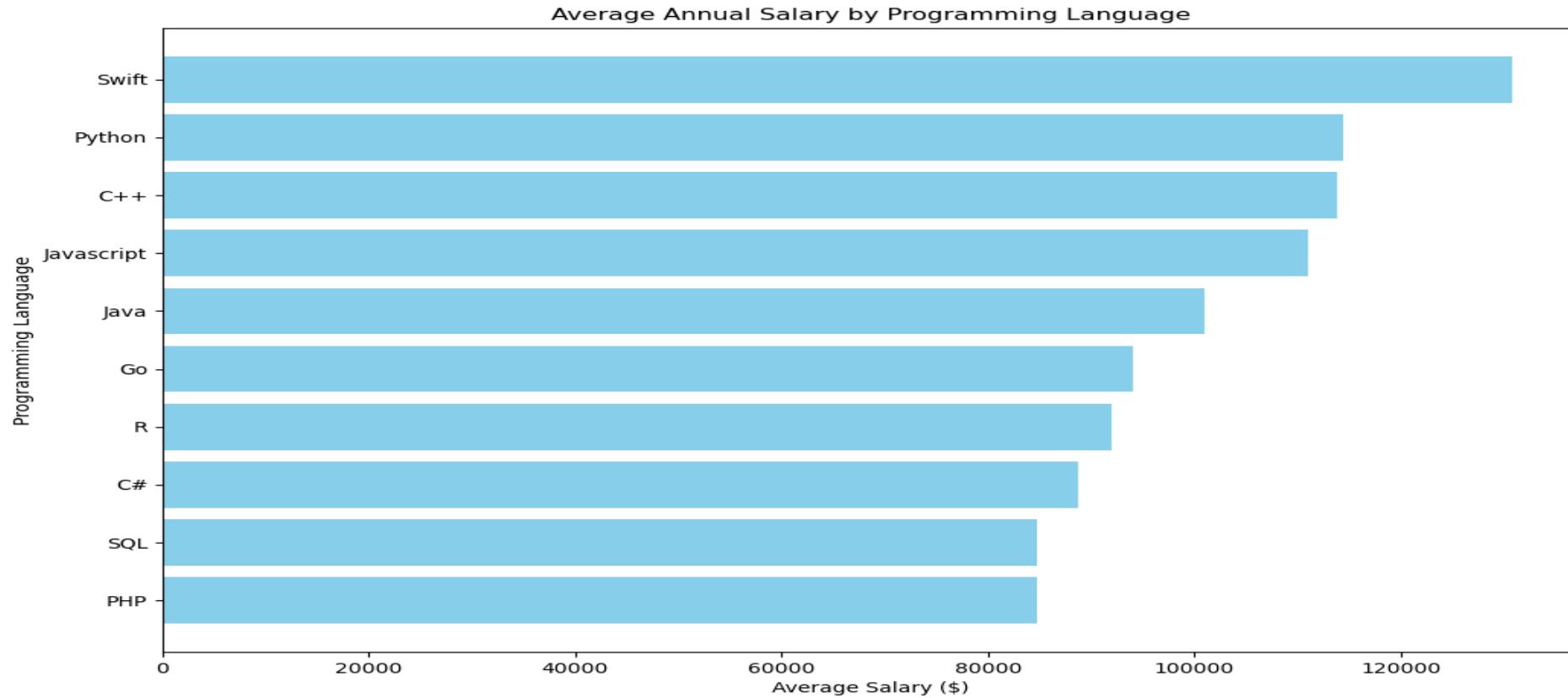
Working hours and Age correlation ?



Top 5 Language Desired



Average Salary By Programming Language



Top 5 language Databases

