The Analysis of Current and Future Trends in Technical Skills

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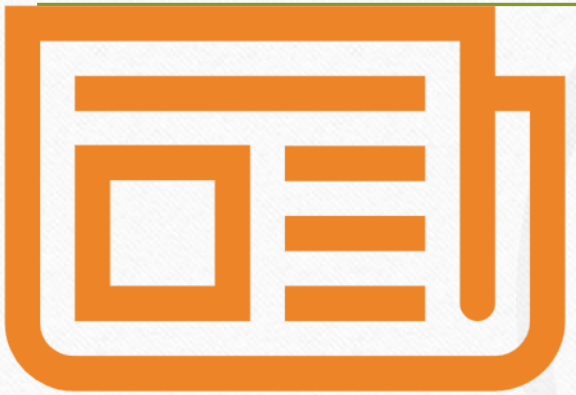
EXECUTIVE SUMMARY

- Current and future demographic studies in computer programming languages,platforms, webframes and databases
- Level of education, age, country and gender gap in technological companies
- Population in the survey
- Data Wrangling, Analysis and Visualization based on the technical skills and careers

INTRODUCTION

- This data report is about top trends of computer programming languages, databases, platforms and web frames.
- The purpose of this data presentation is to analyze the technical skills in demography.
- The main point is that many respondents have or want the technical skills and careers in the demographic data.
- Audiences and viewers include college professors and students from computer science department and information technology employees and supervisors.

METHODOLOGY



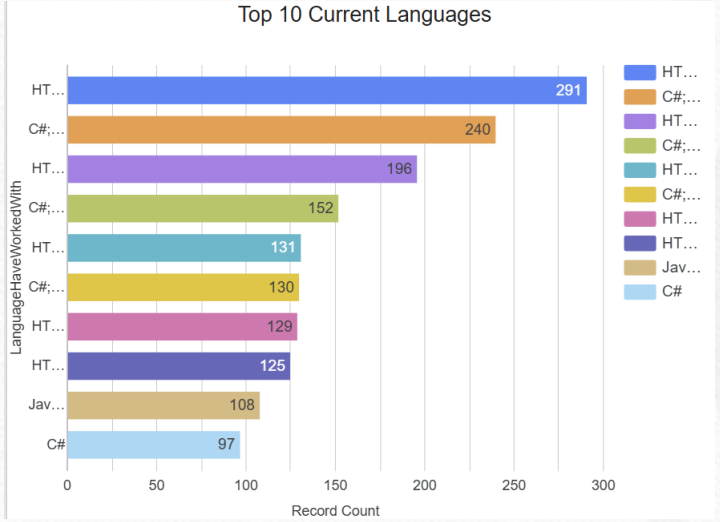
- Data Collection
  - Web scraping
  - APIs
  - Request library
- Data Wrangling
  - Removing duplicate
  - Removing or replacing the missing values
- Exploratory Data Analysis
  - Handling outliners
  - Correlation
- Data Visualization
  - Comparison and Composition of demographic data
  - Data relationships
- Dashboard

RESULTS

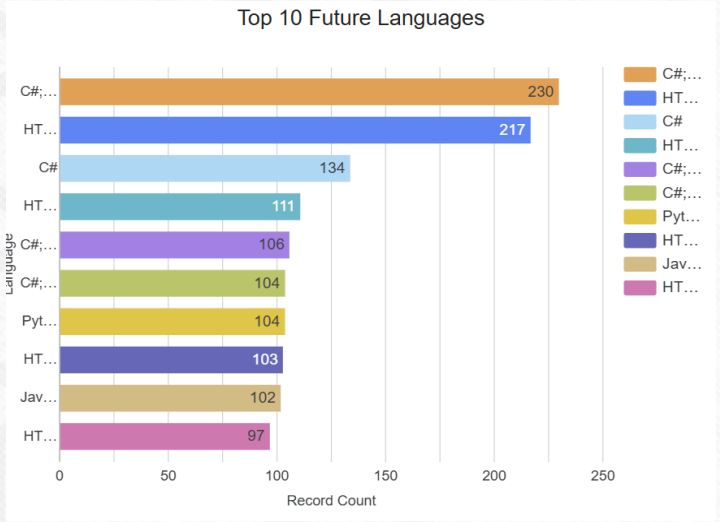
ResponseId	MainBranch	Age	Employment	RemoteWork	Check	CodingActivities	EdLevel	LearnCode
1	I am a developer by profession	Under 18 years old	Employed, full-time	Remote	Apples	Hobby	Primary/elementary school	Books / Physical media
2	I am a developer by profession	35-44 years old	Employed, full-time	Remote	Apples	Hobby;Contribute to open-source projects;Other...	Bachelor's degree (B.A., B.S., B.Eng., etc.)	Books / Physical media;Colleague;On the job tr...
3	I am a developer by profession	45-54 years old	Employed, full-time	Remote	Apples	Hobby;Contribute to open-source projects;Other...	Master's degree (M.A., M.S., M.Eng., MBA, etc.)	Books / Physical media;Colleague;On the job tr...
4	I am learning to code	18-24 years old	Student, full-time	NaN	Apples	NaN	Some college/university study without earning ...	Other online resources (e.g., videos, blogs, f...
5	I am a developer by profession	18-24 years old	Student, full-time	NaN	Apples	NaN	Secondary school (e.g. American high school, G...	Other online resources (e.g., videos, blogs, f...

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

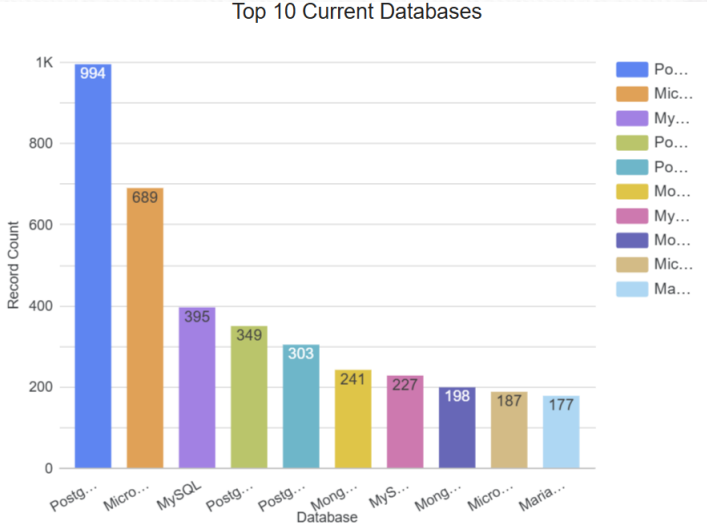
- The amount of C # will increase.
- There is the interest in Python.

Implications

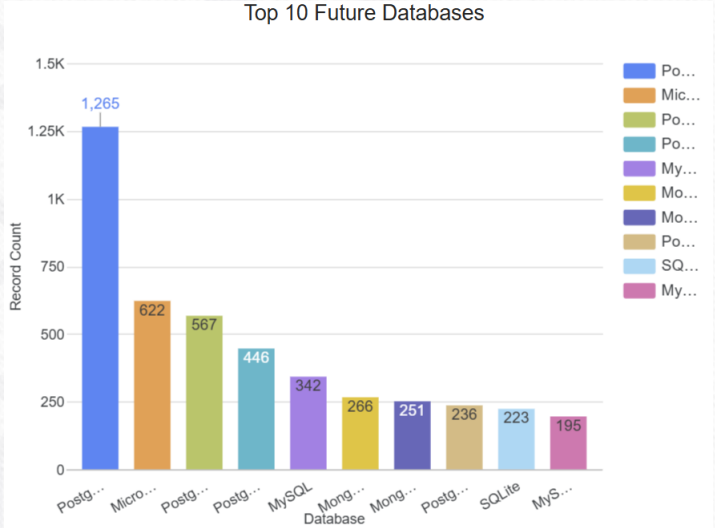
- Python will establish in the market.

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Postgre SQL is the most popular database in the technology.
- The amount of programmers and developers who works MySQL will decrease in future.
- The amount of Microsoft SQL Server will decrease in future, but the amount of MongoDB will increase in future.

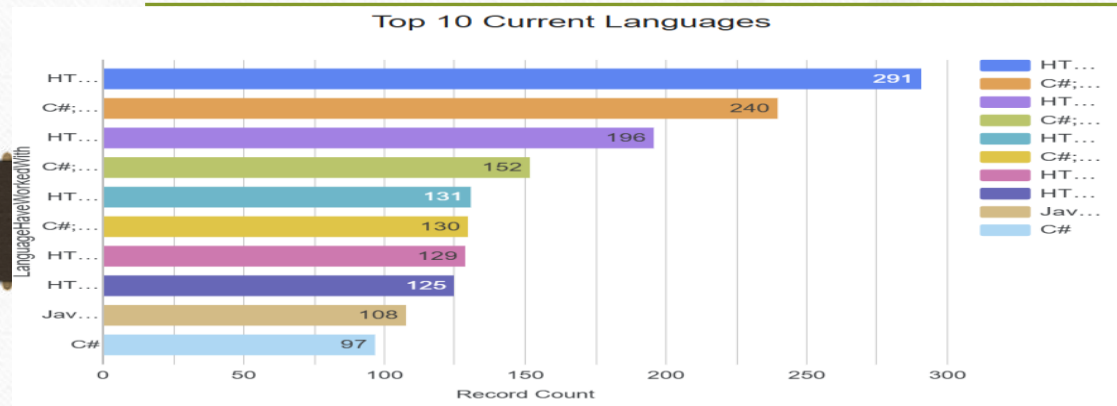
Implications

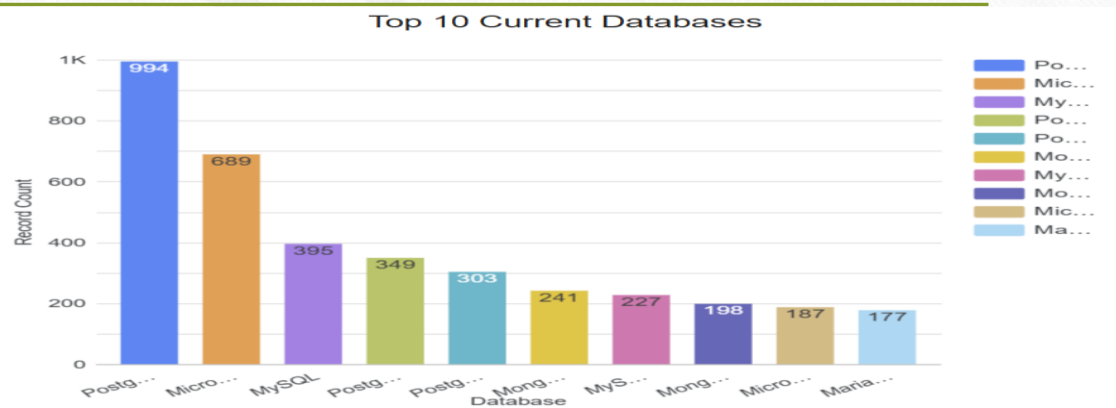
- SQLite will establish in the market.

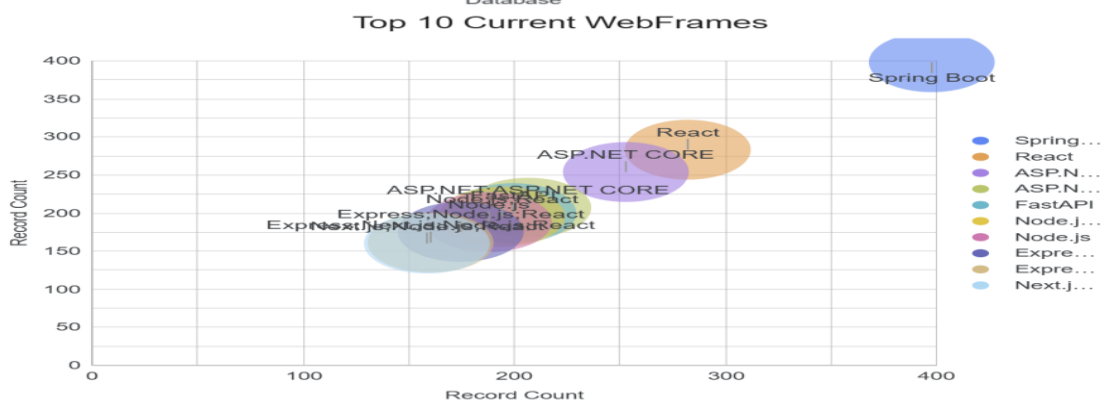
DASHBOARD

https://github.com/richardlam4391/IBM_Data_Analyst_Capstone_Project/blob/main/IBM_Data_Analyst_Capstone_Project_Dashboard.pdf

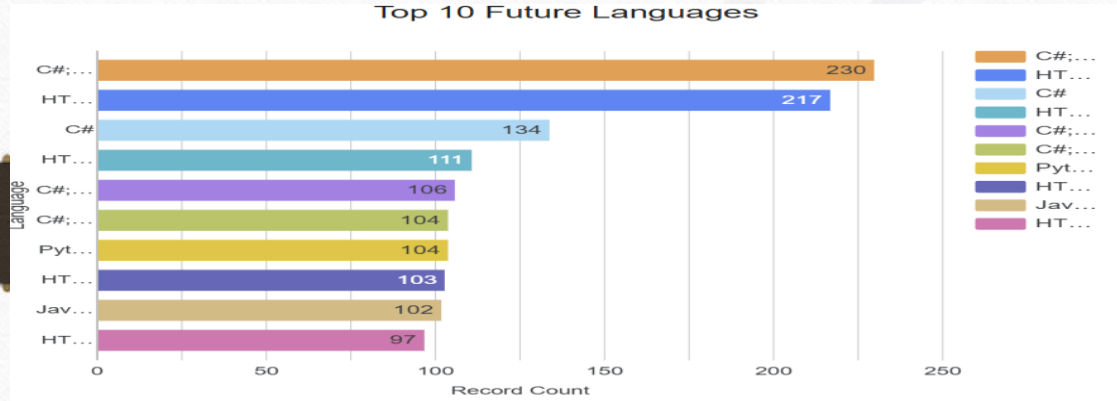
DASHBOARD TAB 1

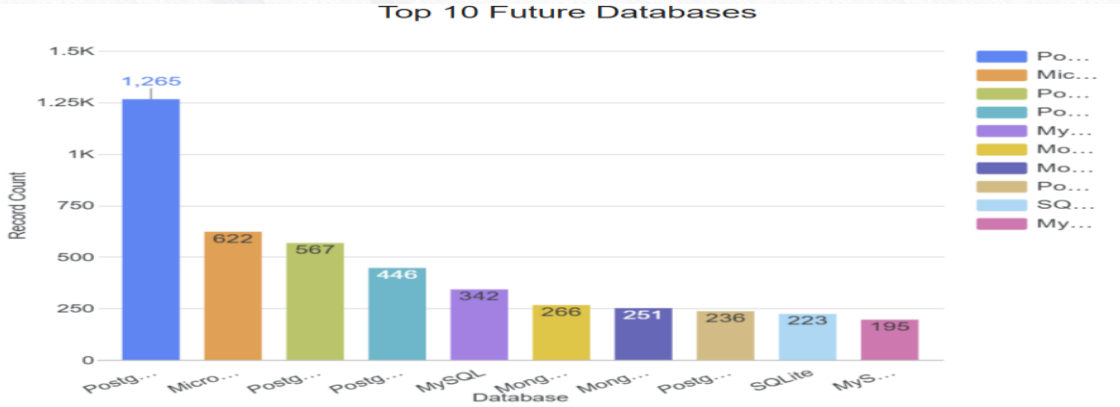


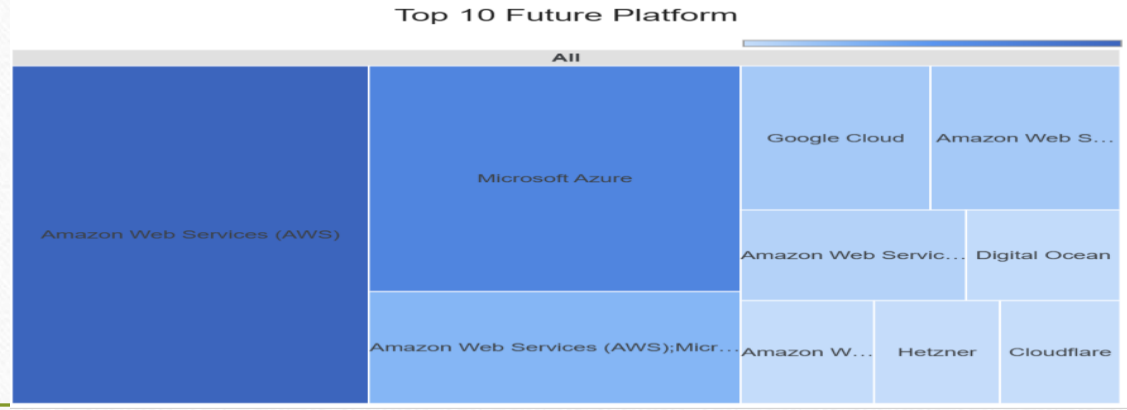


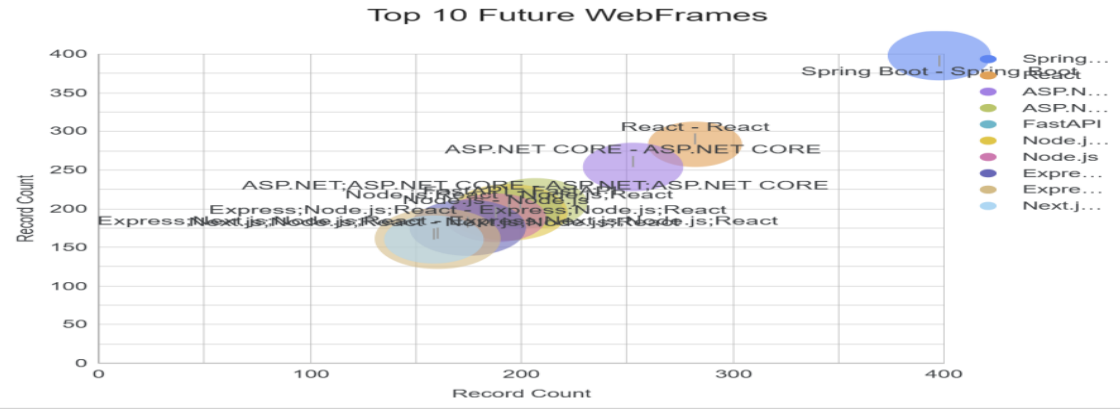


DASHBOARD TAB 2

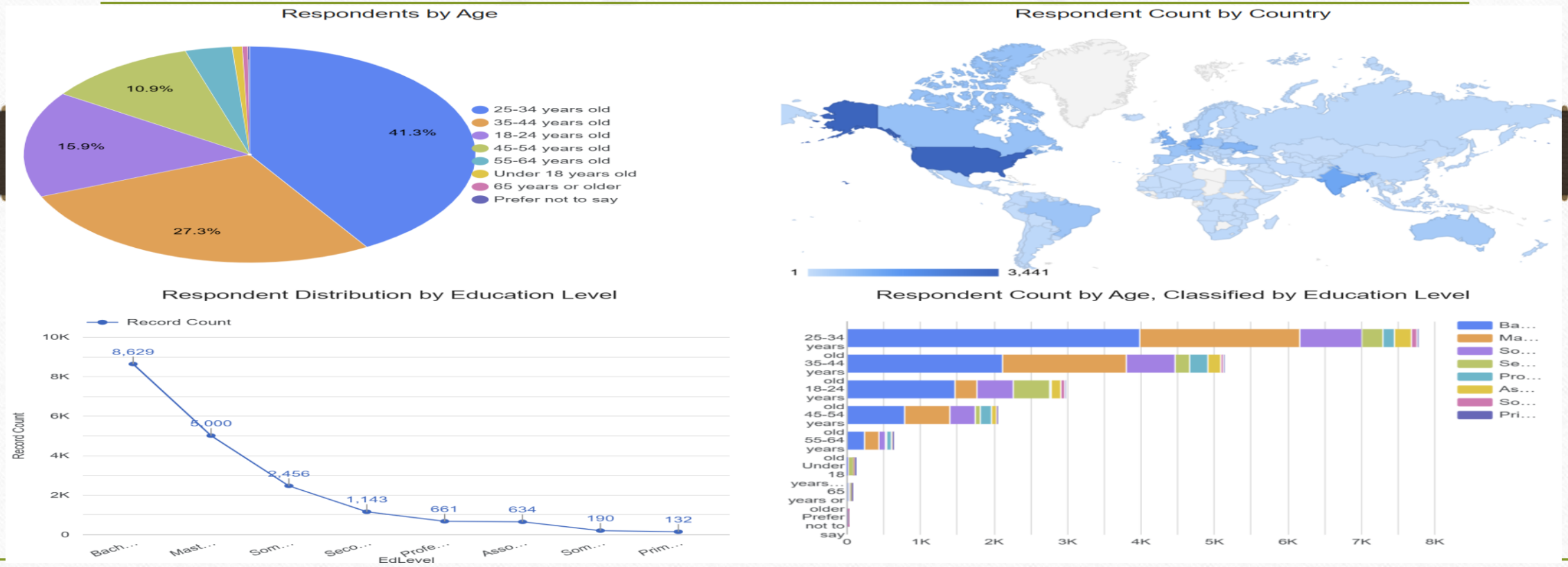








DASHBOARD TAB 3



DISCUSSION

- There are technology trends in current and future times.
- There are developers and programmers with age and education gap in the technical society.

OVERALL FINDINGS & IMPLICATIONS

Findings

- There are 42% of developers and programmers with 25 – 34 years old.
- There are gender, age and education gaps in the technical society.
- There is the concentration in the country like the United States.

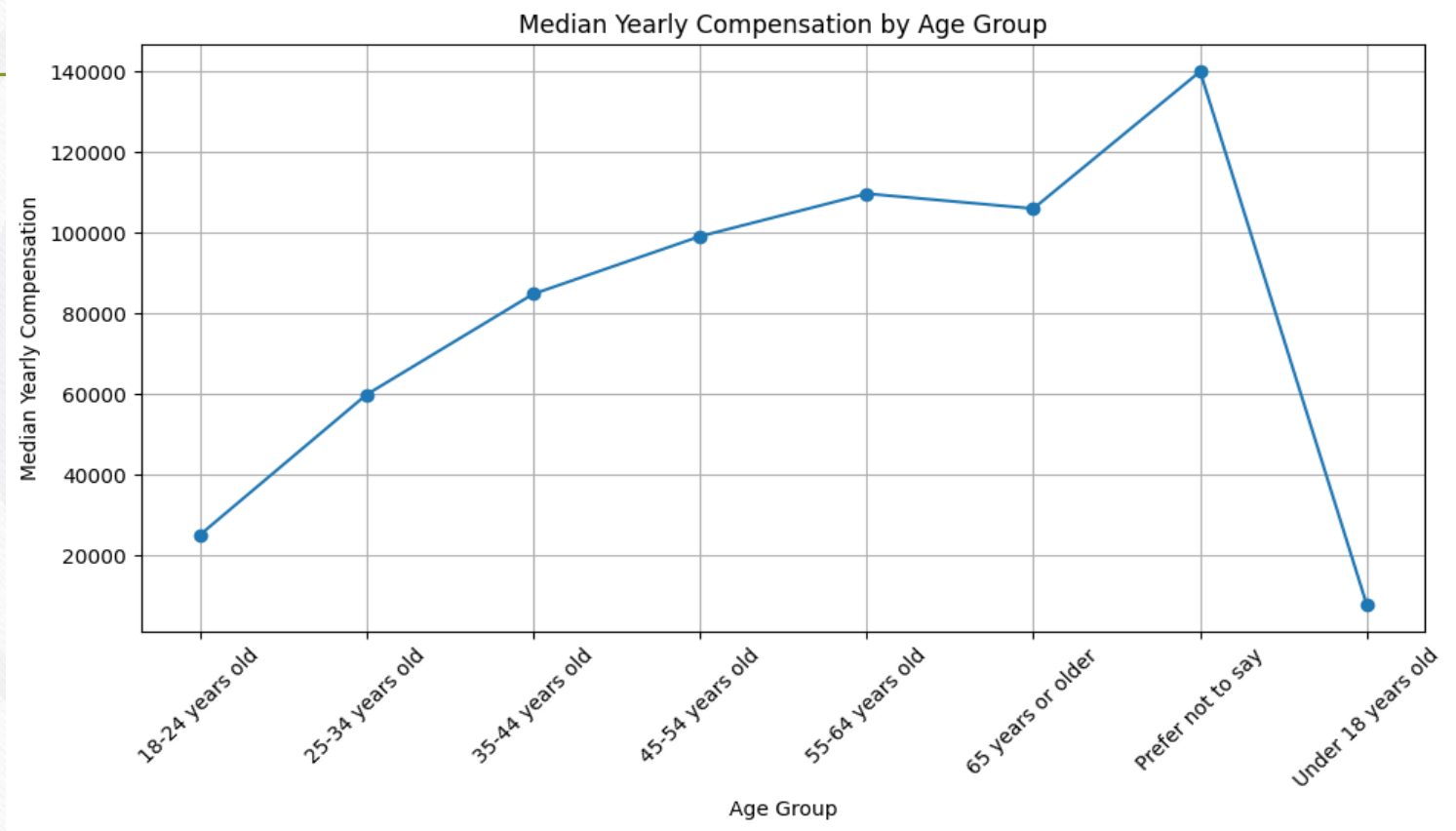
Implications

- There are the younger developers without the postgraduate degree.
- The developers and Programmers should understand the current and future technology trends.
- The companies should spread technology out to one of the countries.

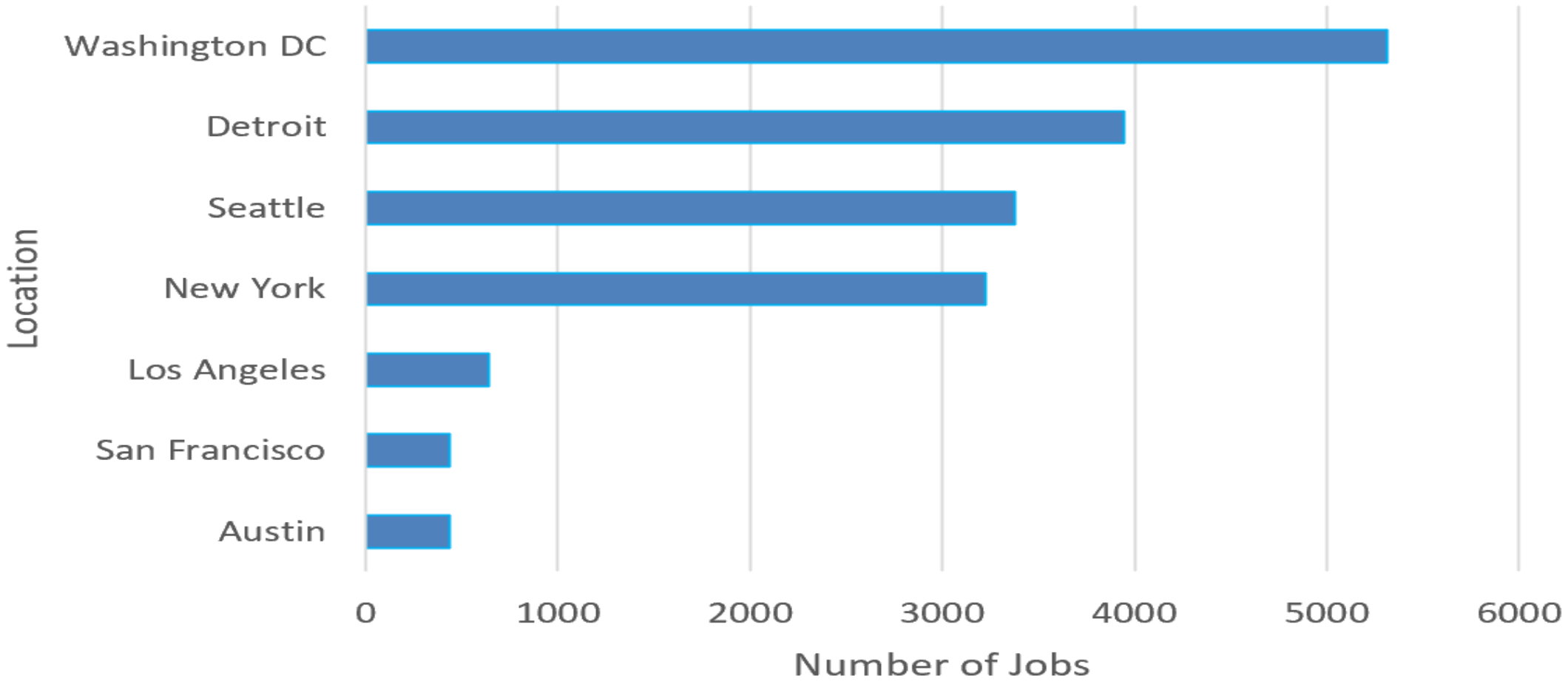
CONCLUSION

- There are recent and new technology trends
- There are programmers and developers with age and education.
- The demographic studies depend on salaries.
- The programmers and developers focus on databases, computer programming languages, web frames and platforms in current and future trends.

APPENDIX


Median Yearly Compensation by Age Group
Median Yearly Compensation
140000
120000
100000
80000
60000
40000
20000
18-24 years old
25-34 years old
35-44 years old
45-54 years old
55-64 years old
65 years or older
Prefer not to say
Under 18 years old
Age Group

JOB POSTINGS



POPULAR LANGUAGES