School: SOET Campus: Vzm

Academic Year: 2021/25 Subject Name: DAVP Subject Code: CsEn1018

Semester: 7th Program: B.Tech Branch: ECE Specialization: ECE

Date:

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiement : Use pandas to group aggregate a dataset on city wise Covid-19 cases.

Coding Phase: Pseudo Code / Flow Chart / Algorithm

→ Import necessary libraries. 'pandas' for data manipulation', matplotlib.pyplot' for plotting, and 'seaborn' for enhanced visualization

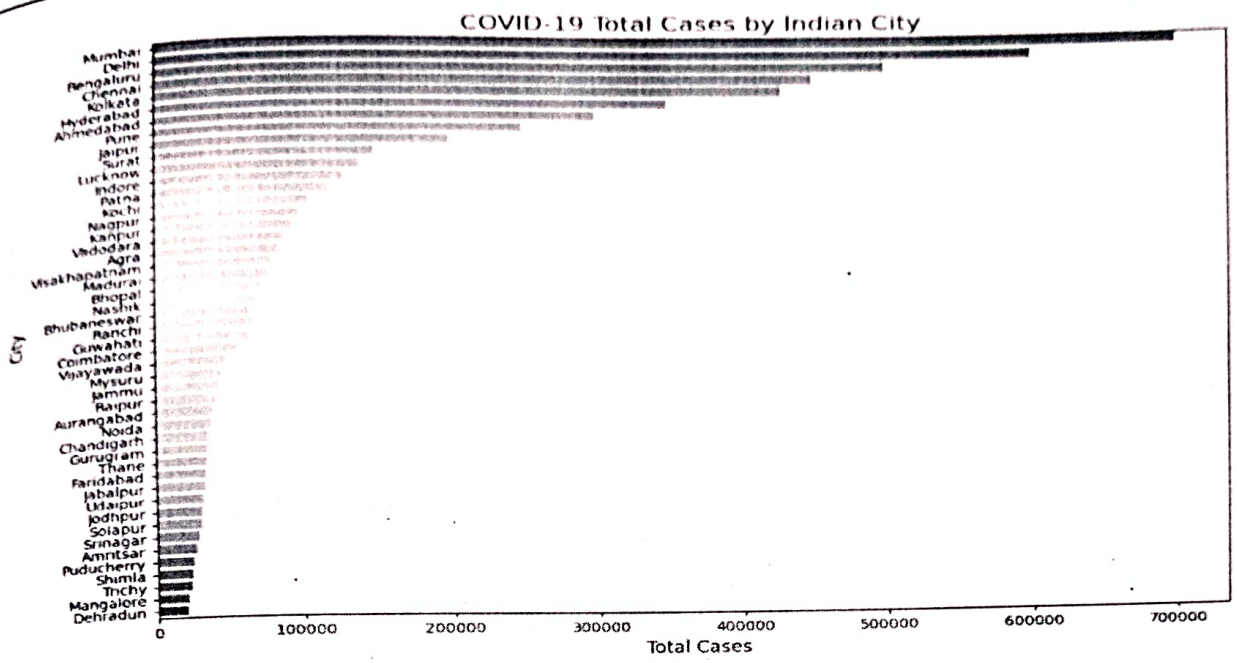
→ load the dataset using 'pd.read_csv()' to create a Data frame.

→ group data by 'city' and sum "Total_cases' for better visualization

→ plot a bar chart using 'sns.barplot()'; add labels., and display the plot with 'plot.show()'.

Testing Phase: Compilation of Code (error detection)

Implementation Phase: Final Output (no error)



ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student: G. Sumanth

Name : G. Sumanth

Regn. No. : 21180131001

Signature of the Faculty:

```
Import pandas as pd
Import matplotlib.pyplot as plt
Import seaborn as sns
df = pd.read_csv('covid-data.csv')
city_cases = df.groupby('city')['Total_cases'].sum().reset_index()
city_cases = city_cases.sort_values(by='Total_cases', ascending
                                    =false)
plt.figure(figsize=(12,8))
sns.barplot(x='Total_cases', y='city', data=city_cases, palette=
                                    'coolwarm')
plt.title('COVID-19 Total Cases by Indian city', fontsize=16)
plt.xlabel('Total cases', fontsize=12)
plt.ylabel('city', fontsize=12)
plt.show()
```