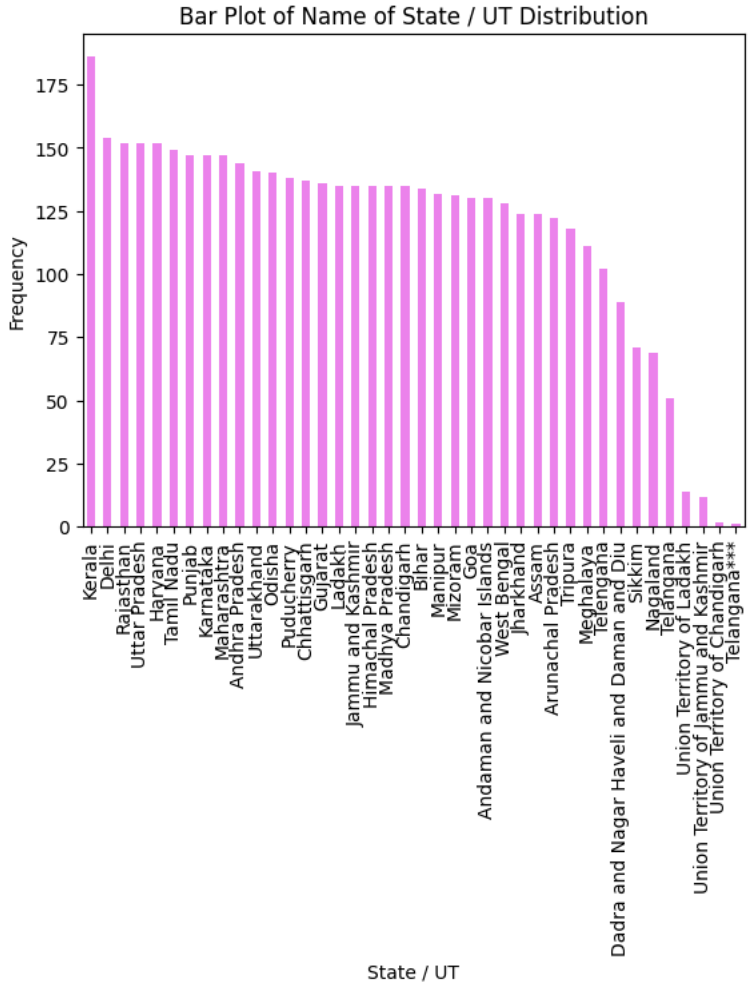
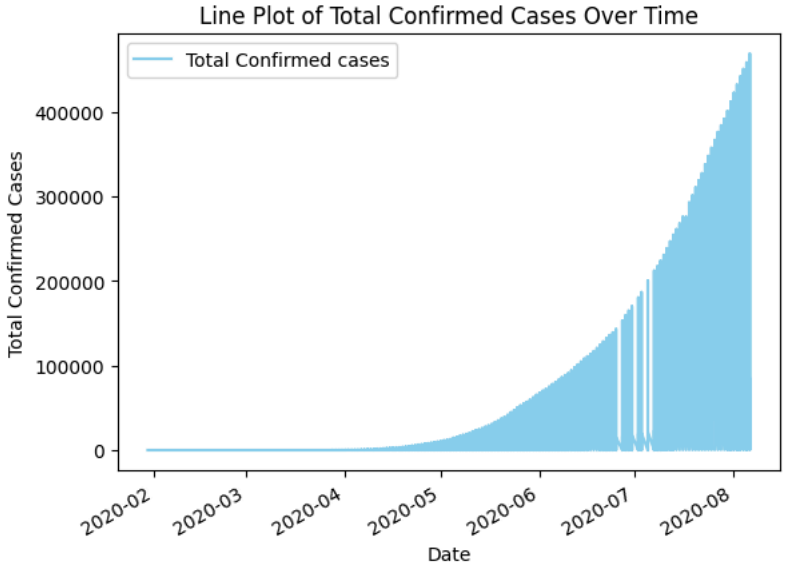
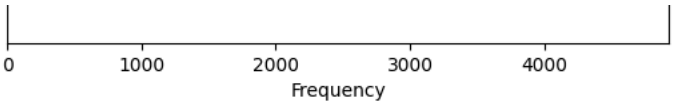
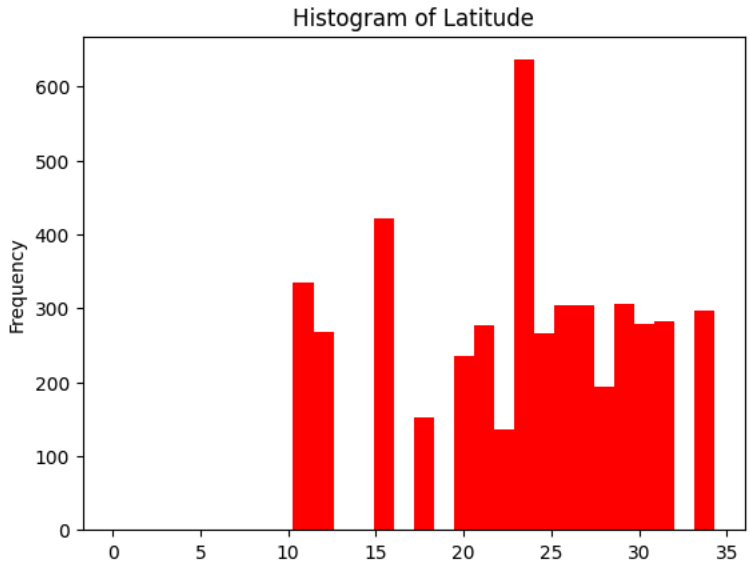
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

# Load the COVID-19 dataset from a CSV file
df = pd.read_csv("/content/complete.csv")

# Bar plot of Name of State / UT Distribution
df['Name of State / UT'].value_counts().plot(kind="bar", color='Violet')
plt.title("Bar Plot of Name of State / UT Distribution")
plt.xlabel("State / UT")
plt.ylabel("Frequency")
plt.show()

# Line plot of Total Confirmed Cases over Time
df['Date'] = pd.to_datetime(df['Date'])
df.plot(kind="line", x='Date', y='Total Confirmed cases', color='skyblue')
plt.title("Line Plot of Total Confirmed Cases Over Time")
plt.xlabel("Date")
plt.ylabel("Total Confirmed Cases")
plt.show()

# Horizontal bar plot of New deaths Distribution
df['New deaths'].value_counts().plot(kind="barh", color='purple')
plt.title("Horizontal Bar Plot of New Deaths Distribution")
plt.xlabel("Frequency")
plt.ylabel("New Deaths")
plt.show()

# Histogram of Latitude
df['Latitude'].plot(kind="hist", bins=30, color='red')
plt.title("Histogram of Latitude")
plt.show()

# Histogram of Longitude
df['Longitude'].plot(kind="hist", bins=30, color='green')
plt.title("Histogram of Longitude")
plt.show()

# Scatter plot of New deaths vs New recovered
plt.scatter(df["New deaths"], df["New recovered"], color='yellow')
plt.title("Scatter Plot of New deaths vs New recovered")
plt.xlabel("New Deaths")
plt.ylabel("New Recovered")
plt.show()

# Pairplot of the dataset
sns.pairplot(df, hue='Name of State / UT', palette='viridis')
plt.show()

# Correlation heatmap of a random matrix (for demonstration)
correlation_matrix = np.random.rand(3, 3)
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm')
plt.title("Random Correlation Matrix Heatmap")
plt.show()
```

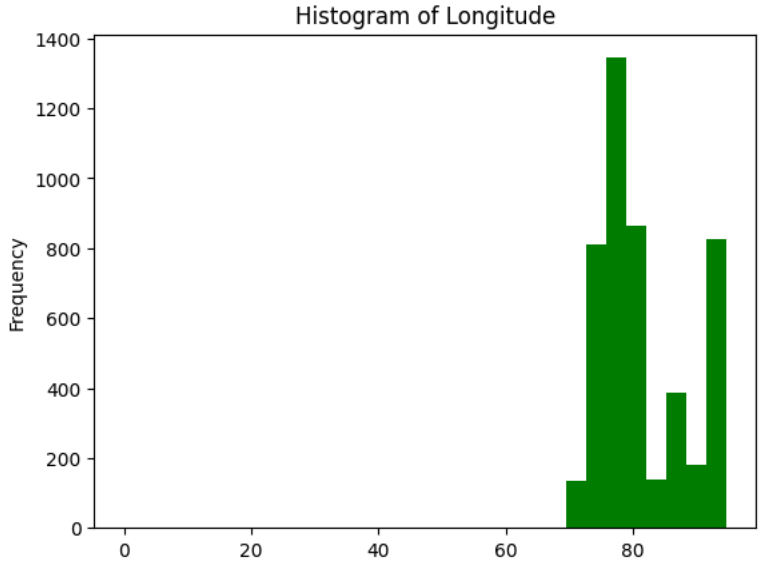

Bar Plot of Name of State / UT Distribution
Frequency
0
25
50
75
100
125
150
175
Kerala
Delhi
Rajasthan
Uttar Pradesh
Haryana
Tamil Nadu
Punjab
Karnataka
Maharashtra
Andhra Pradesh
Uttarakhand
Odisha
Puducherry
Chhattisgarh
Gujarat
Ladakh
Jammu and Kashmir
Himachal Pradesh
Madhya Pradesh
Chandigarh
Bihar
Manipur
Mizoram
Goa
Andaman and Nicobar Islands
West Bengal
Jharkhand
Assam
Arunachal Pradesh
Tripura
Meghalaya
Telengana
Dadra and Nagar Haveli and Daman and Diu
Sikkim
Nagaland
Telangana
Union Territory of Ladakh
Union Territory of Jammu and Kashmir
Union Territory of Chandigarh
Telangana***
State / UT

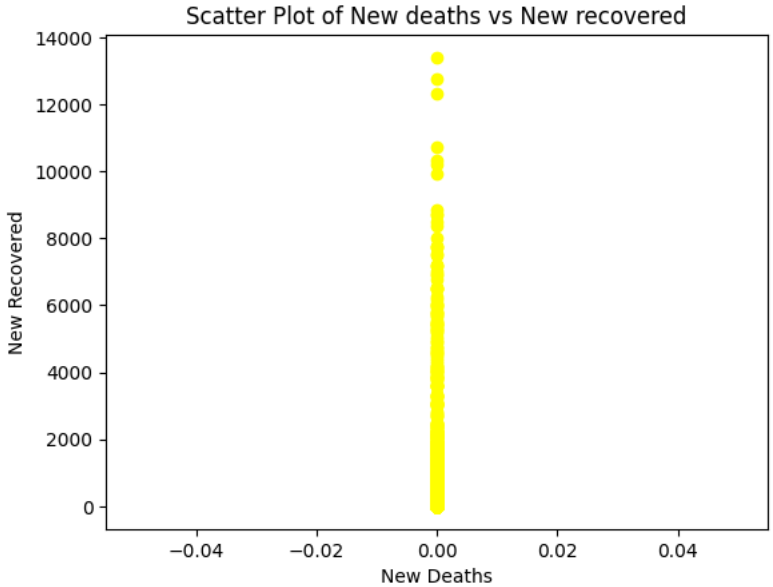

Line Plot of Total Confirmed Cases Over Time
Total Confirmed cases
Total Confirmed Cases
0
100000
200000
300000
400000
2020-02
2020-03
2020-04
2020-05
2020-06
2020-07
2020-08
Date

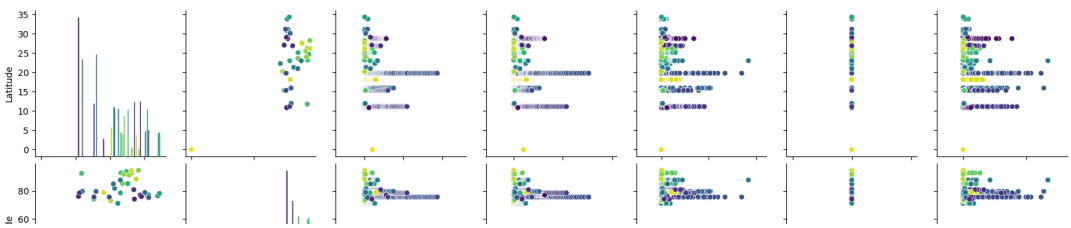

Horizontal Bar Plot of New Deaths Distribution
New Deaths
0

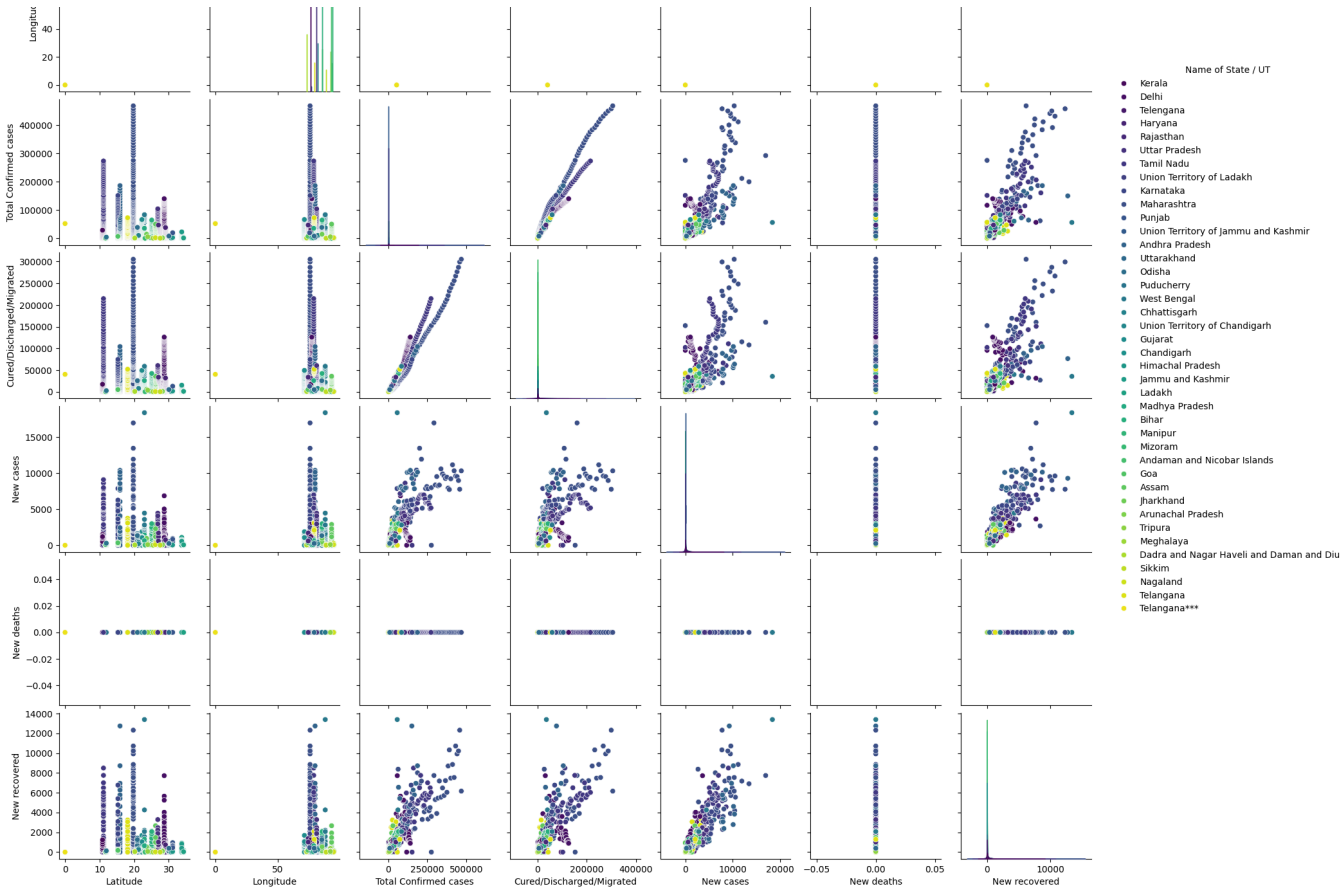

0
1000
2000
3000
4000
Frequency

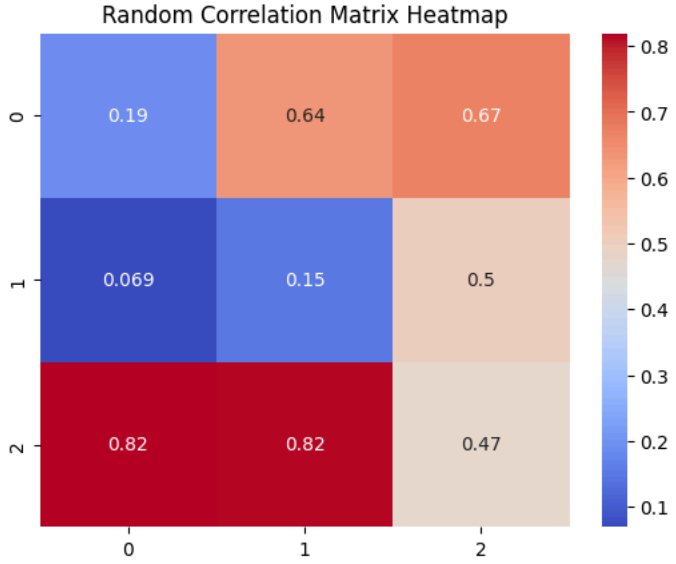

Histogram of Latitude
Frequency
0
100
200
300
400
500
600
0
5
10
15
20
25
30
35


Histogram of Longitude
Frequency
0
200
400
600
800
1000
1200
1400
0
20
40
60
80


Scatter Plot of New deaths vs New recovered
New Recovered
0
2000
4000
6000
8000
10000
12000
14000
−0.04
−0.02
0.00
0.02
0.04
New Deaths


Latitude


Latitude
Longitude
Total Confirmed cases
Cured/Discharged/Migrated
New cases
New deaths
New recovered
Name of State / UT
Kerala
Delhi
Telengana
Haryana
Rajasthan
Uttar Pradesh
Tamil Nadu
Union Territory of Ladakh
Karnataka
Maharashtra
Punjab
Union Territory of Jammu and Kashmir
Andhra Pradesh
Uttarakhand
Odisha
Puducherry
West Bengal
Chhattisgarh
Union Territory of Chandigarh
Gujarat
Chandigarh
Himachal Pradesh
Jammu and Kashmir
Ladakh
Madhya Pradesh
Bihar
Manipur
Mizoram
Andaman and Nicobar Islands
Goa
Assam
Jharkhand
Arunachal Pradesh
Tripura
Meghalaya
Dadra and Nagar Haveli and Daman and Diu
Sikkim
Nagaland
Telangana
Telangana***


Random Correlation Matrix Heatmap
0.19
0.64
0.67
0.069
0.15
0.5
0.82
0.82
0.47
0
1
2
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1