DATA VISUALIZATION

DATASET INFORMATION:

IMPORTANT COLUMNS AND DESCRIPTION:

1. **State/UTs :** This column consists of the names of the states whose cases we would looking into,

2. **Total Cases :** This column consists of the total number of cases in each of the states till date.

3. **Discharged :** This columns provides with the number of people who were cured in each of the states.

4. **Active Ratio (%) :** This column provides the Current Covid Positive cases Percentage.

5. **Discharge Ratio (%) :** This column provides the cure/discharge percentage.

6. **Death Ratio (%) :** This column provides with the percentage of people dead from covid in each state.

```
tql.py - C:\Users\ADMIN\Desktop\tql assignment\tql.py (3.8.3)*
File   Edit   Format   Run   Options   Window   Help

import pandas as pd
from matplotlib import pyplot as py
df = pd.read_csv("Latest Covid-19 India Status.csv")

#Maharashtra has the highest number of cases
states = []
for i in df["State/UTs"]:
    states.append(i)
py.scatter(states, df["Total Cases"])
py.xticks(rotation=90)
py.xlabel("States")
py.ylabel("Cases")
py.title("STATE WISE CASES")
py.show()

#Total and discharged
py.bar(states, df["Total Cases"], label = "Overall Cases", color = "mediumorchid", width = 0.8)
py.bar(states, df["Discharged"], label = "Discharged", color = "mediumspringgreen", width = 0.4)
py.xticks(rotation = 90)
py.xlabel("States")
py.ylabel("Cases")
py.title("DISCHARGED CASES OUT OF THE TOTAL CASES")
py.legend()
py.show()

#Active, discharge and death ratio
active = df["Active Ratio (%)"].mean()
cure = df["Discharge Ratio (%)"].mean()
death = df["Death Ratio (%)"].mean()
case = [active,cure,death]
label = ["Active Cases", "Discharged Cases", "Deaths"]
color = ["cyan", "springgreen", "plum"]
py.pie(case, colors = color, shadow = True, explode = (0.1,0.3,0.1))
py.legend(labels =[f'{l}, {s:0.1f}%' for l, s in zip(label, case)], loc = "upper right")
py.title("ACTIVE, DISCHARGED AND DEATH RATES")
py.show()
```
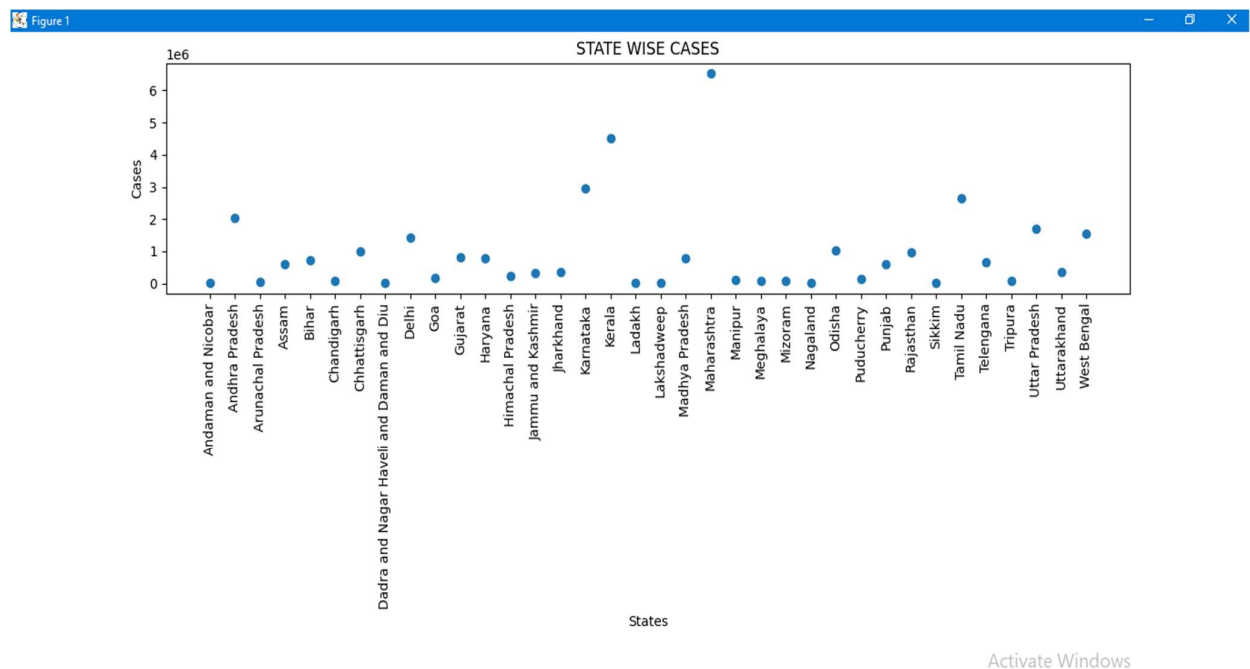
FINDING THE STATE WITH MAXIMUM NUMBER OF CASES

```python
states = []
for i in df["State/UTs"]:
    states.append(i)

py.scatter(states, df["Total Cases"])
py.xticks(rotation=90)
py.xlabel("States")
py.ylabel("Cases")
py.title("STATE WISE CASES")
py.show()
```

**TO COMPARE THE NUMBER OF CASES IN EVERY STATE**



**GRAPH COMPARING THE TOTAL CASES IN EACH STATE**

Here we have compared the total number of cases in each state with the scatter plot. From this graph it is clear which of the states have high number of cases and which ones have comparatively low. From this we can say that Maharashtra has the highest number of cases.

## COMPARING THE DISCHARGED/CURED CASES WITH THE TOATAL CASES IN EACH STATE

```python
py.bar(states, df["Total Cases"], label = "Overall Cases", color = "mediumorchid", width = 0.8)
py.bar(states, df["Discharged"], label = "Discharged", color = "mediumspringgreen", width = 0.4)
py.xticks(rotation = 90)
py.xlabel("States")
py.ylabel("Cases")
py.title("DISCHARGED CASES OUT OF THE TOTAL CASES")
py.legend()
py.show()
```

CODE TO COMPARE THE NUMBER OF PEOPLE DISCHARGED WITH TOTAL POSITIVE CASES
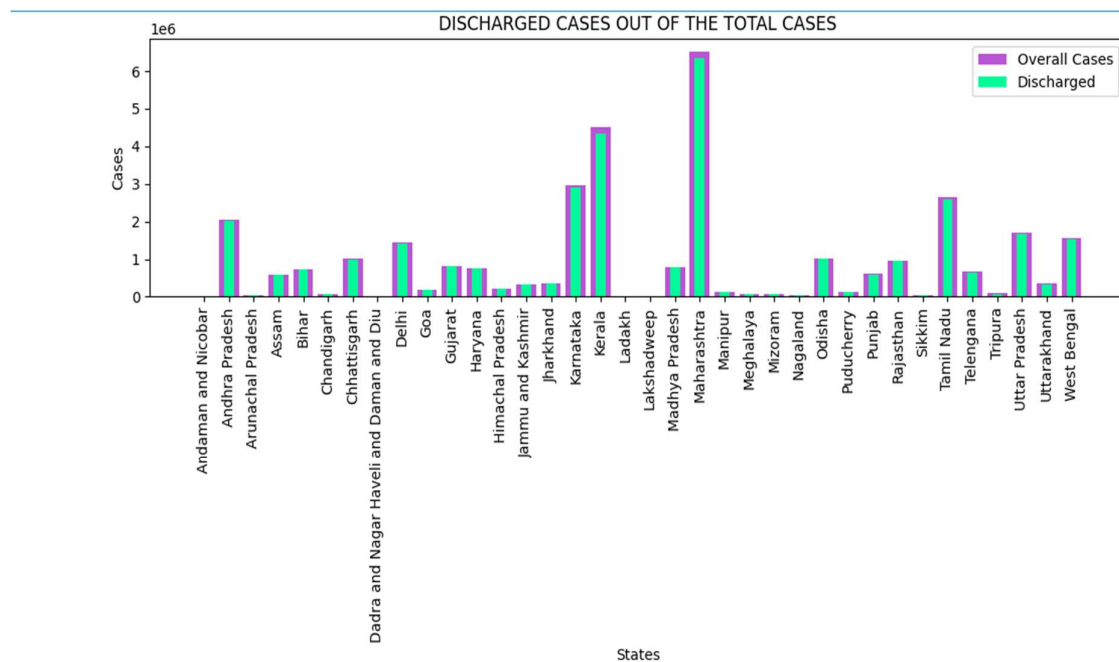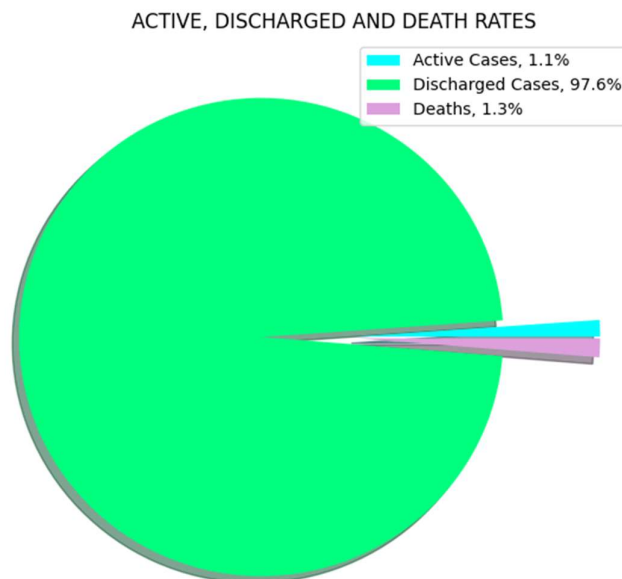

GRAPH COMPARING THE DISCHARGED CASES WITH THE TOTAL CASES

Here we have compared the total number of positive cases with the number of cases cured or discharged in each of the states using bar graphs. From this graph we can say that the cure rate is high and most people in each state who were positive have been treated and cured.

COMPARING THE ACTIVE, DISCHARGE AND DEATH RATES:

```python
active = df["Active Ratio (%)"].mean()
cure = df["Discharge Ratio (%)"].mean()
death = df["Death Ratio (%)"].mean()
case = [active,cure,death]
label = ["Active Cases", "Discharged Cases", "Deaths"]
color = ["cyan", "springgreen", "plum"]
py.pie(case, colors = color, shadow = True, explode = (0.1,0.3,0.1))
py.legend(labels =[f'{l}, {s:0.1f}%' for l, s in zip(label, case)], loc = "upper right")
py.title("ACTIVE, DISCHARGED AND DEATH RATES")
py.show()
```

CODE TO COMPARE THE ACTIVE, DISCHARGED AND DEATH RATES

GRAPH COMPARING THE ACTIVE, DISCHARGED AND DEATH RATIOS

Here we have compared the current active positive cases rates, cured/discharged rates and the death rates using a pie chart. From this pie chart, it's clear that the active and death rates are very low compared to the discharge rates. We can say that the death rates due to covid or even the current positive rates are very low and the cure rate is high.