```
In [13]:
           import numpy as np
           import pandas as pd
In [14]:
           import matplotlib.pyplot as plt
In [15]:
In [16]:
           dataset = pd.read_csv(r'C:\Users\Dell\dsbda\covid_vaccine_statewise.csv')
In [17]:
           dataset.head()
Out[17]:
                 Updated
                                   Total Doses
                                                                     First Dose
                                                                                 Second Dose
                                                                                                Male (Doses
                           State
                                               Sessions
                                                            Sites
                                 Administered
                      On
                                                                   Administered
                                                                                Administered
                                                                                              Administered)
               16/01/2021
            0
                           India
                                      48276.0
                                                  3455.0
                                                           2957.0
                                                                        48276.0
                                                                                          0.0
                                                                                                        NaN
               17/01/2021
                           India
                                      58604.0
                                                  8532.0
                                                           4954.0
                                                                        58604.0
                                                                                          0.0
                                                                                                        NaN
               18/01/2021
                           India
                                      99449.0
                                                 13611.0
                                                           6583.0
                                                                        99449.0
                                                                                          0.0
                                                                                                       NaN
               19/01/2021
                                      195525.0
                                                 17855.0
                                                           7951.0
                           India
                                                                       195525.0
                                                                                          0.0
                                                                                                        NaN
               20/01/2021
                                                                       251280.0
                                                                                          0.0
                                                                                                       NaN
                           India
                                      251280.0
                                                 25472.0
                                                          10504.0
           5 rows × 24 columns
In [18]:
           dataset.tail()
Out[18]:
                    Updated
                                       Total Doses
                                                                       First Dose
                                                                                   Second Dose
                                                                                                  Male (Doses
                               State
                                                    Sessions
                                                              Sites
                                      Administered
                                                                     Administered
                                                                                  Administered
                                                                                                Administered)
                         On
                                West
            7840
                   11/08/2021
                                              NaN
                                                               NaN
                                                                             NaN
                                                                                           NaN
                                                        NaN
                                                                                                          NaN
                              Bengal
                                West
            7841
                  12/08/2021
                                              NaN
                                                        NaN
                                                               NaN
                                                                             NaN
                                                                                           NaN
                                                                                                          NaN
                              Bengal
                                West
            7842
                  13/08/2021
                                              NaN
                                                        NaN
                                                               NaN
                                                                             NaN
                                                                                           NaN
                                                                                                          NaN
                              Bengal
                               West
                  14/08/2021
            7843
                                              NaN
                                                        NaN
                                                               NaN
                                                                             NaN
                                                                                           NaN
                                                                                                          NaN
                              Bengal
                                West
                                                                                           NaN
            7844
                  15/08/2021
                                              NaN
                                                        NaN
                                                               NaN
                                                                             NaN
                                                                                                          NaN
                              Bengal
           5 rows × 24 columns
```

In [19]: dataset.describe()

Out[19]:

	Total Doses Administered	Sessions	Sites	First Dose Administered	Second Dose Administered	Male (Doses Administered)	Adm
count	7.621000e+03	7.621000e+03	7621.000000	7.621000e+03	7.621000e+03	7.461000e+03	7.46
mean	9.188171e+06	4.792358e+05	2282.872064	7.414415e+06	1.773755e+06	3.620156e+06	3.16
std	3.746180e+07	1.911511e+06	7275.973730	2.995209e+07	7.570382e+06	1.737938e+07	1.51
min	7.000000e+00	0.000000e+00	0.000000	7.000000e+00	0.000000e+00	0.000000e+00	2.00
25%	1.356570e+05	6.004000e+03	69.000000	1.166320e+05	1.283100e+04	5.655500e+04	5.21
50%	8.182020e+05	4.547000e+04	597.000000	6.614590e+05	1.388180e+05	3.897850e+05	3.34
75%	6.625243e+06	3.428690e+05	1708.000000	5.387805e+06	1.166434e+06	2.735777e+06	2.56
max	5.132284e+08	3.501031e+07	73933.000000	4.001504e+08	1.130780e+08	2.701636e+08	2.39

8 rows × 22 columns

```
In [20]: dataset['First Dose Administered'].value_counts()
                        7
Out[20]: 1824.0
                        7
         807.0
         2780.0
                        6
         7304.0
                        6
         19870.0
                        4
         253299.0
                        1
         185565.0
                        1
         2808898.0
                        1
         21575079.0
                        1
         2378841.0
                        1
         Name: First Dose Administered, Length: 7367, dtype: int64
In [21]: dataset['Second Dose Administered'].value_counts()
Out[21]: 0.0
                      1048
         107.0
                         8
         674.0
                         6
```

762611.0 1
39421.0 1
Name: Second Dose Administered, Length: 6275, dtype: int64

37259.0

35326.0

436628.0

724912.0

62169.0

6

5

1

1

1

```
In [32]: dataset['Male (Doses Administered)'].value_counts()
Out[32]: 623.0
                       7
         1410.0
                       7
         745.0
                       6
         3984.0
                       6
         588.0
                       6
         12973.0
                       1
         3819136.0
                       1
         16402.0
                       1
         3668946.0
                       1
         3926414.0
                       1
         Name: Male (Doses Administered), Length: 7170, dtype: int64
In [33]: dataset['Female (Doses Administered)'].value_counts()
Out[33]: 414.0
                        8
         184.0
                        7
         2035.0
                        6
         3320.0
                        6
         6889.0
                        5
         18840891.0
                        1
         552348.0
                        1
         339640.0
                        1
         197680.0
                        1
         17326.0
                        1
         Name: Female (Doses Administered), Length: 7155, dtype: int64
In [ ]:
```