

```
In [1]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
```

```
In [2]: data = pd.read_csv("covid_19_india.csv")
```

```
In [3]: data
```

```
Out[3]:
```

	Sno	Date	Time	State/UnionTerritory	ConfirmedIndianNational	ConfirmedForeignNational
0	1	2020-01-30	6:00 PM	Kerala	1	0
1	2	2020-01-31	6:00 PM	Kerala	1	0
2	3	2020-02-01	6:00 PM	Kerala	2	0
3	4	2020-02-02	6:00 PM	Kerala	3	0
4	5	2020-02-03	6:00 PM	Kerala	3	0
...
16845	16846	2021-07-07	8:00 AM	Telangana	-	-
16846	16847	2021-07-07	8:00 AM	Tripura	-	-
16847	16848	2021-07-07	8:00 AM	Uttarakhand	-	-
16848	16849	2021-07-07	8:00 AM	Uttar Pradesh	-	-
16849	16850	2021-07-07	8:00 AM	West Bengal	-	-

16850 rows × 9 columns



```
In [6]: confirmed = data.Confirmed.sum()
confirmed
```

```
Out[6]: 4353478074
```

```
In [7]: cured = data.Cured.sum()
cured
```

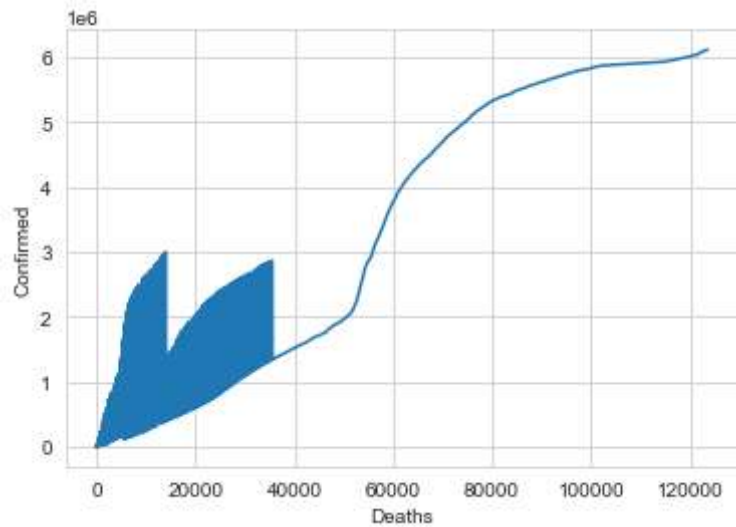
```
Out[7]: 3977194136
```

```
In [8]: deaths = data.Deaths.sum()  
deaths
```

```
Out[8]: 58726000
```

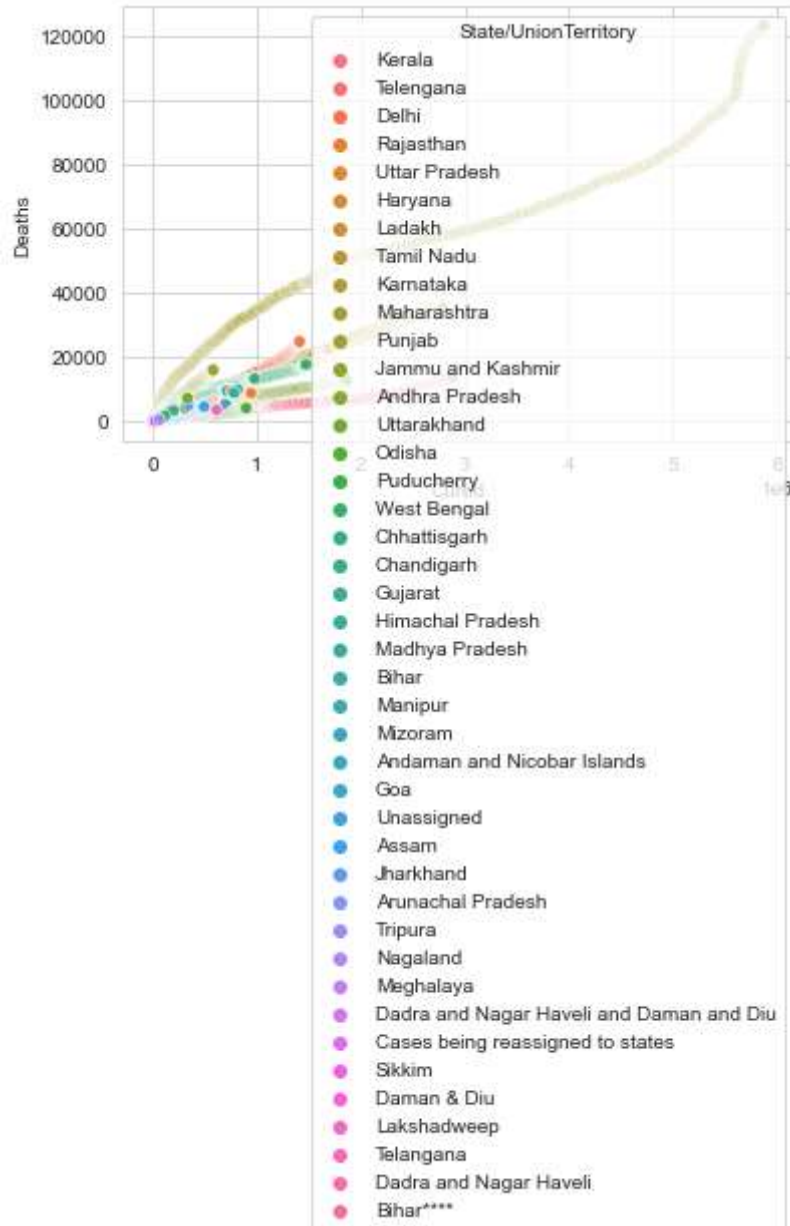
```
In [9]: sns.set_style(style='whitegrid')  
sns.lineplot(x='Deaths',y='Confirmed',data=data)
```

```
Out[9]: <AxesSubplot:xlabel='Deaths', ylabel='Confirmed'>
```



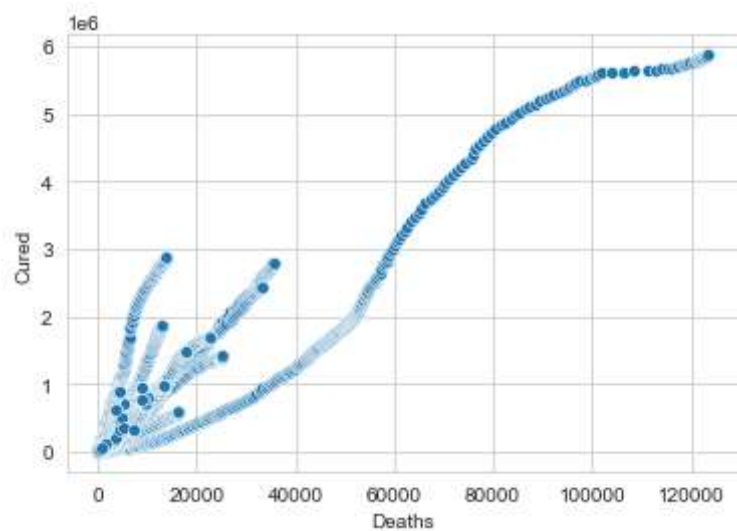
```
In [10]: sns.set_style(style='whitegrid')
sns.scatterplot(x='Cured',y='Deaths',hue='State/UnionTerritory',data=data)
```

```
Out[10]: <AxesSubplot:xlabel='Cured', ylabel='Deaths'>
```



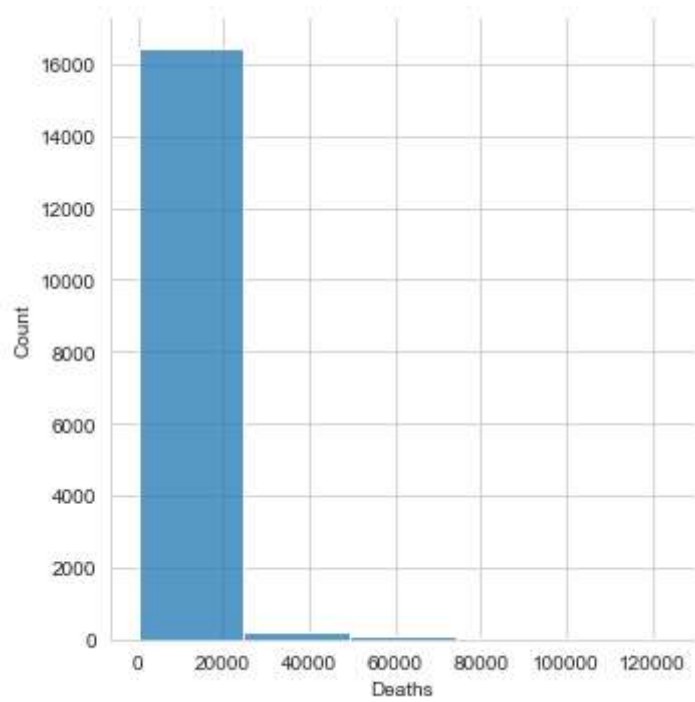
```
In [13]: sns.set_style(style='whitegrid')  
sns.scatterplot(x='Deaths',y='Cured',data=data)
```

```
Out[13]: <AxesSubplot:xlabel='Deaths', ylabel='Cured'>
```



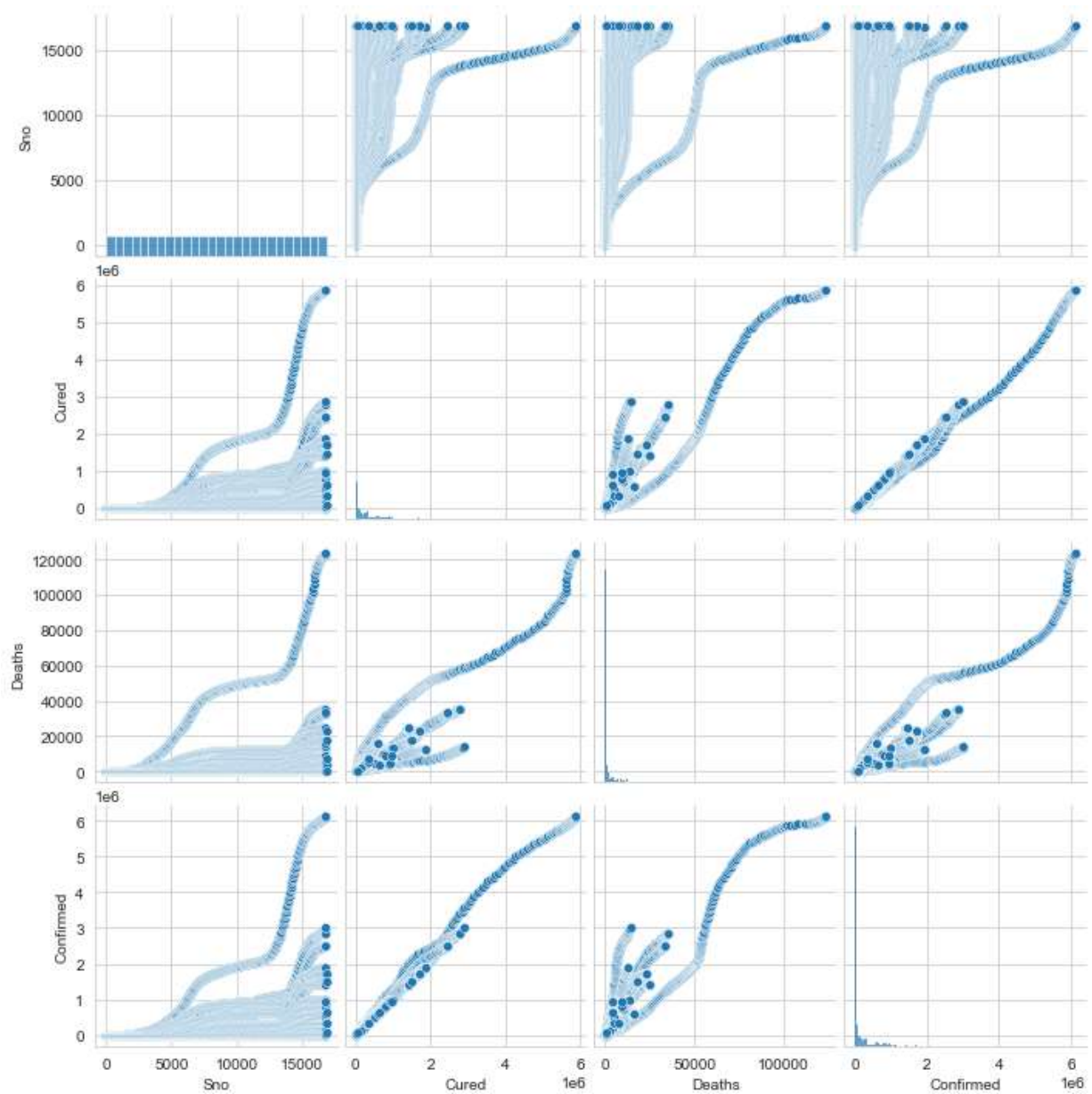
```
In [14]: sns.displot(data['Deaths'],bins=5)
```

```
Out[14]: <seaborn.axisgrid.FacetGrid at 0x24e13a8cee0>
```



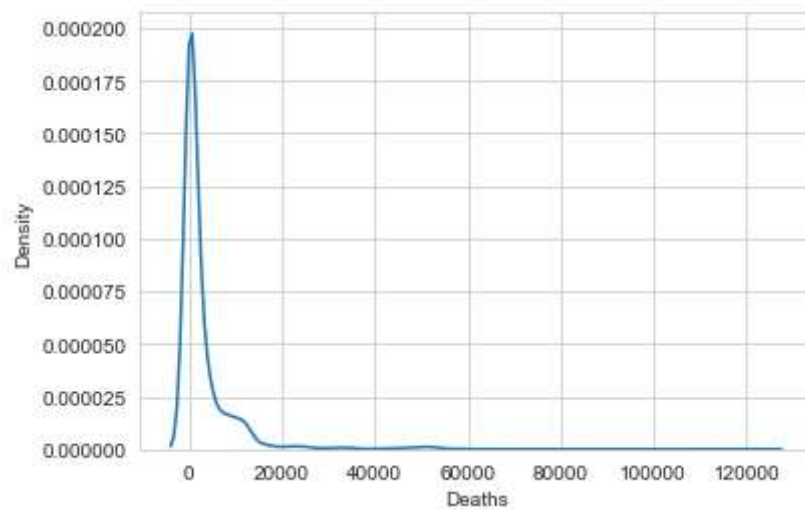
```
In [15]: sns.pairplot(data)
```

```
Out[15]: <seaborn.axisgrid.PairGrid at 0x24e15878640>
```



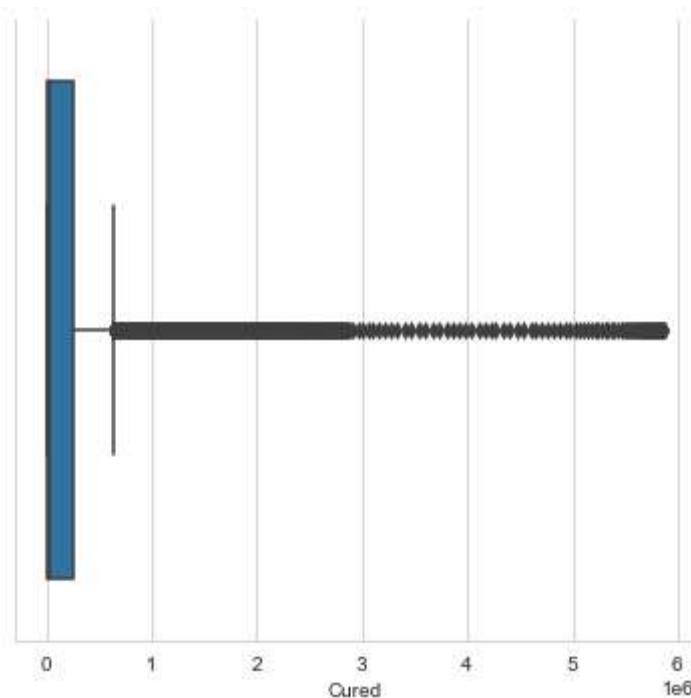
```
In [16]: sns.kdeplot(data=data,x='Deaths')
```

```
Out[16]: <AxesSubplot:xlabel='Deaths', ylabel='Density'>
```



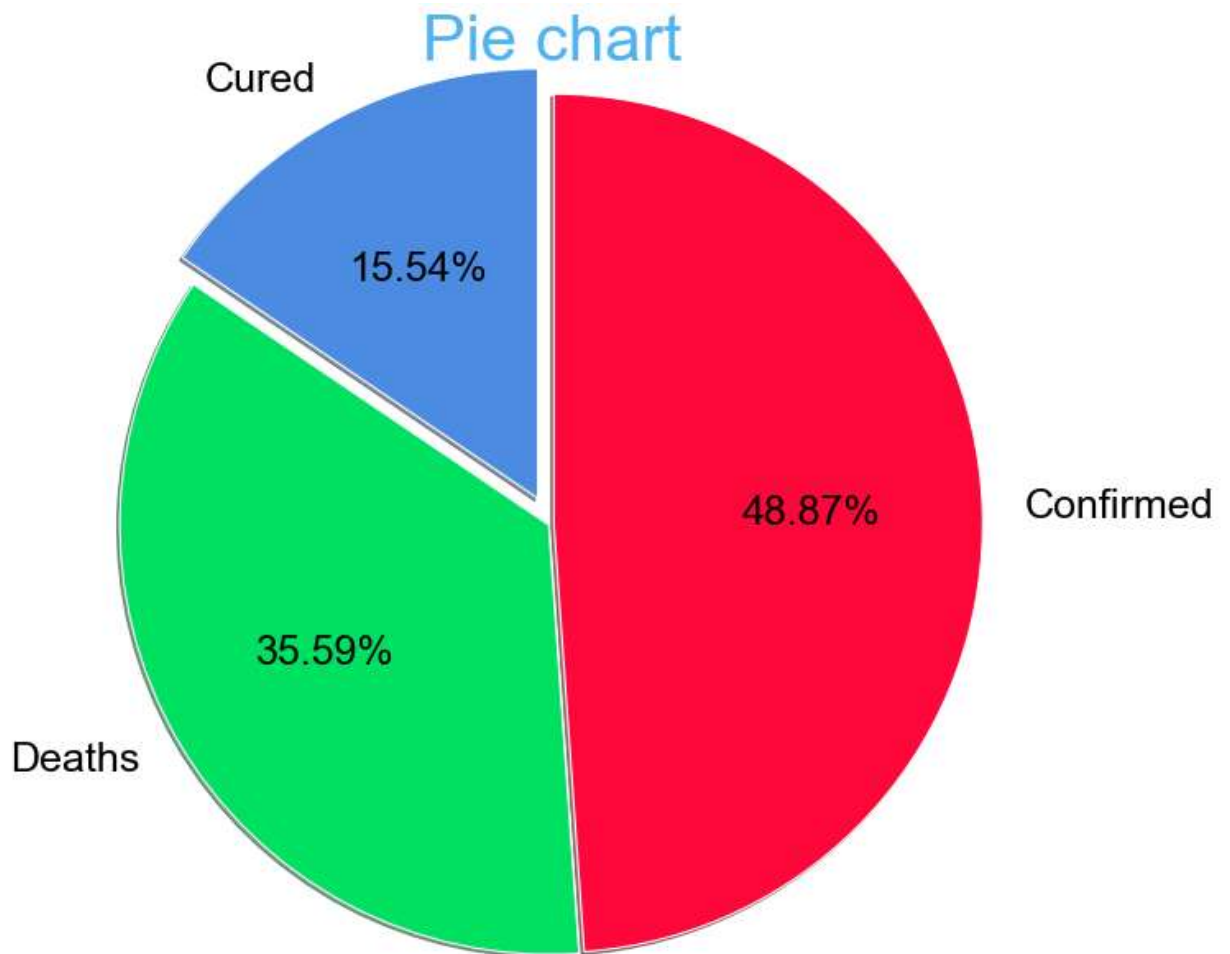
```
In [17]: sns.catplot(data=data,x='Cured',kind='box')
```

```
Out[17]: <seaborn.axisgrid.FacetGrid at 0x24e179fd130>
```



```
In [20]: slices = [62, 142, 195]
activities = ['Cured', 'Deaths', 'Confirmed']
cols=['#4C8BE2','#00e061','#fe073a']
exp = [0.2,0.02,0.02]
plt.pie(slices,labels=activities,
        textprops=dict(size=25,color='black'),
        radius=3,
        colors=cols,
        autopct='%2.2f%%',
        explode=exp,
        shadow=True,
        startangle=90)
plt.title('Pie chart\n\n\n\n',color='#4fb4f2',size=40)
```

```
Out[20]: Text(0.5, 1.0, 'Pie chart\n\n\n\n')
```



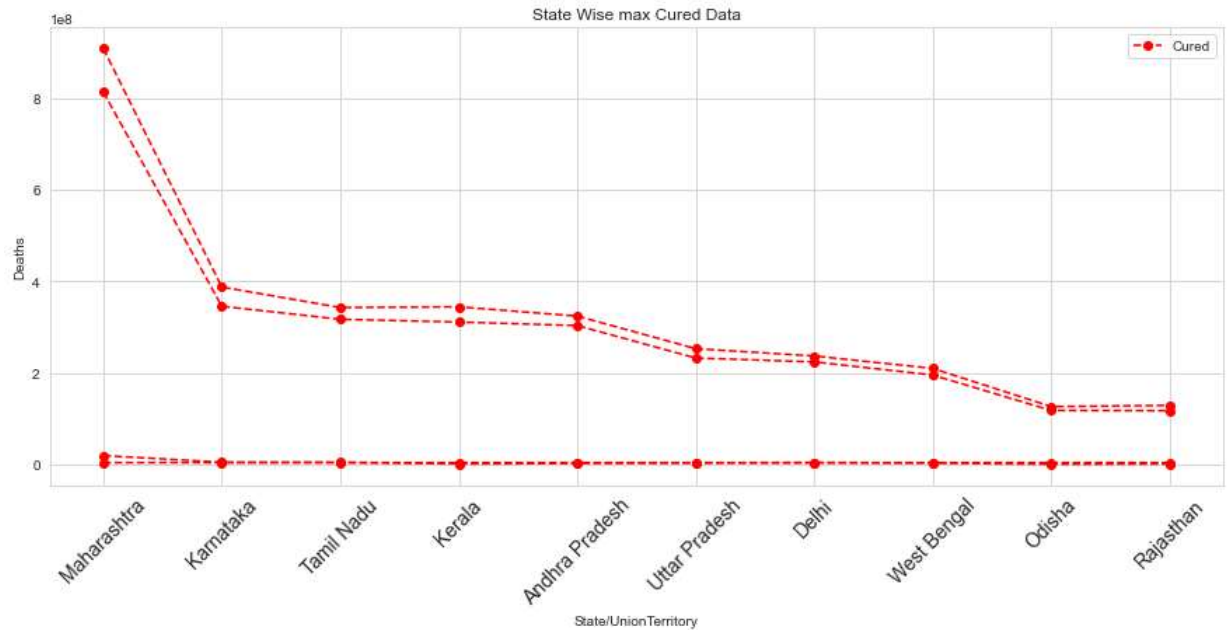

```
In [36]: a1 = data.groupby('State/UnionTerritory').sum()
b2 = a1.sort_values('Cured',ascending=False)
c3 = b2[['Sno','Confirmed','Deaths','Cured']].head(10)
c3
```

```
Out[36]:
```

	Sno	Confirmed	Deaths	Cured
State/UnionTerritory				
Maharashtra	3981147	908892470	19314532	813788907
Karnataka	3979039	387597335	4819018	345648926
Tamil Nadu	3985893	342829697	4731627	317067499
Kerala	3980360	344319045	1327754	311127643
Andhra Pradesh	3972060	324146783	2475816	303427899
Uttar Pradesh	3987943	252843682	3347656	232529439
Delhi	3976047	236972842	4066907	224062704
West Bengal	3986964	209822848	3214840	195296839
Odisha	3982611	126408397	600149	117984789
Rajasthan	3985175	128998101	1159823	117312772

```
In [38]: fig = plt.figure(figsize=(15,6))
plt.xticks(rotation=45,fontsize=14)
plt.plot(c3,'r--o')
plt.legend(['Cured'])
plt.xlabel('State/UnionTerritory')
plt.ylabel('Deaths')
plt.title('State Wise max Cured Data')
```

Out[38]: Text(0.5, 1.0, 'State Wise max Cured Data')



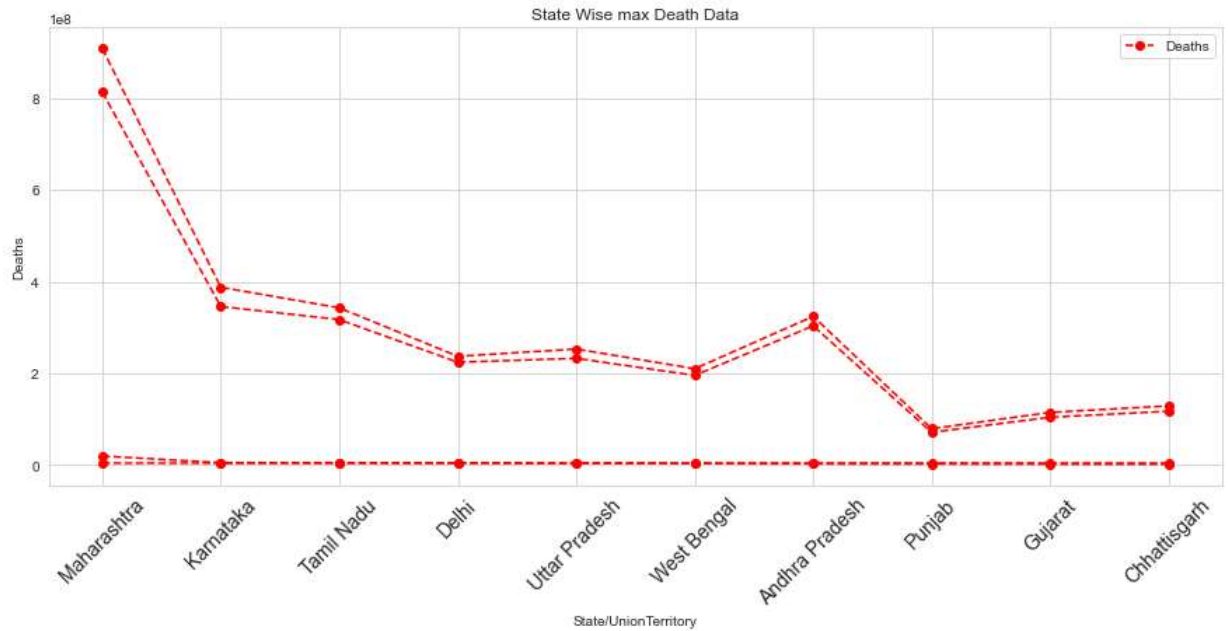
```
In [39]: a1 = data.groupby('State/UnionTerritory').sum()
b2 = a1.sort_values('Deaths',ascending=False)
c3 = b2[['Sno', 'Confirmed', 'Deaths', 'Cured']].head(10)
c3
```

Out[39]:

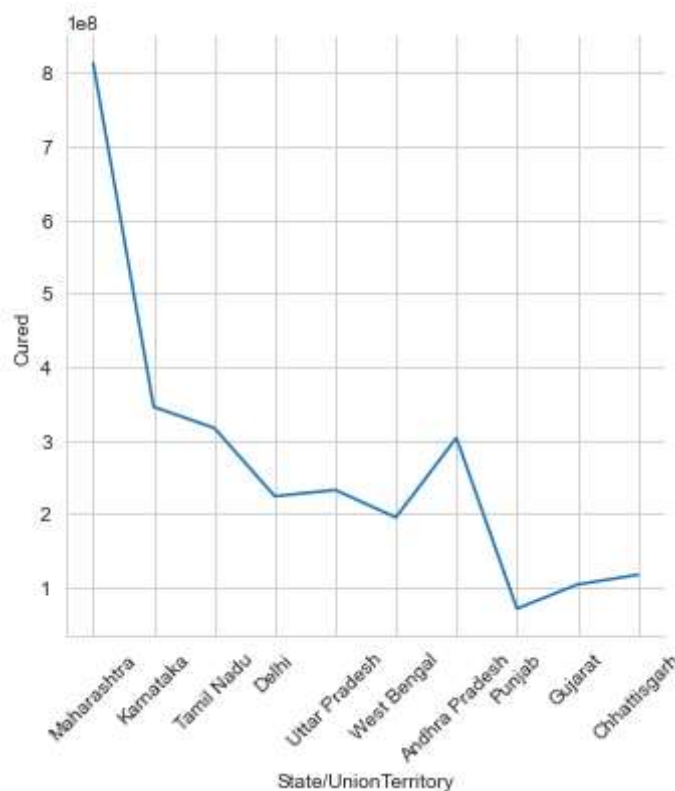
	Sno	Confirmed	Deaths	Cured
State/UnionTerritory				
Maharashtra	3981147	908892470	19314532	813788907
Karnataka	3979039	387597335	4819018	345648926
Tamil Nadu	3985893	342829697	4731627	317067499
Delhi	3976047	236972842	4066907	224062704
Uttar Pradesh	3987943	252843682	3347656	232529439
West Bengal	3986964	209822848	3214840	195296839
Andhra Pradesh	3972060	324146783	2475816	303427899
Punjab	3984397	78999515	2216735	71108712
Gujarat	3975101	114557615	1866811	103995131
Chhattisgarh	3973464	128751782	1591126	117163544

```
In [40]: fig = plt.figure(figsize=(15,6))
plt.xticks(rotation=45,fontsize=14)
plt.plot(c3, 'r--o')
plt.legend(['Deaths'])
plt.xlabel('State/UnionTerritory')
plt.ylabel('Deaths')
plt.title('State Wise max Death Data')
```

Out[40]: Text(0.5, 1.0, 'State Wise max Death Data')



```
In [49]: sns.relplot(data=c3,x='State/UnionTerritory',y='Cured',kind='line',ci=None)
plt.xticks(rotation=45,fontsize=10)
fig = plt.figure(figsize=(15,6))
```



<Figure size 1080x432 with 0 Axes>

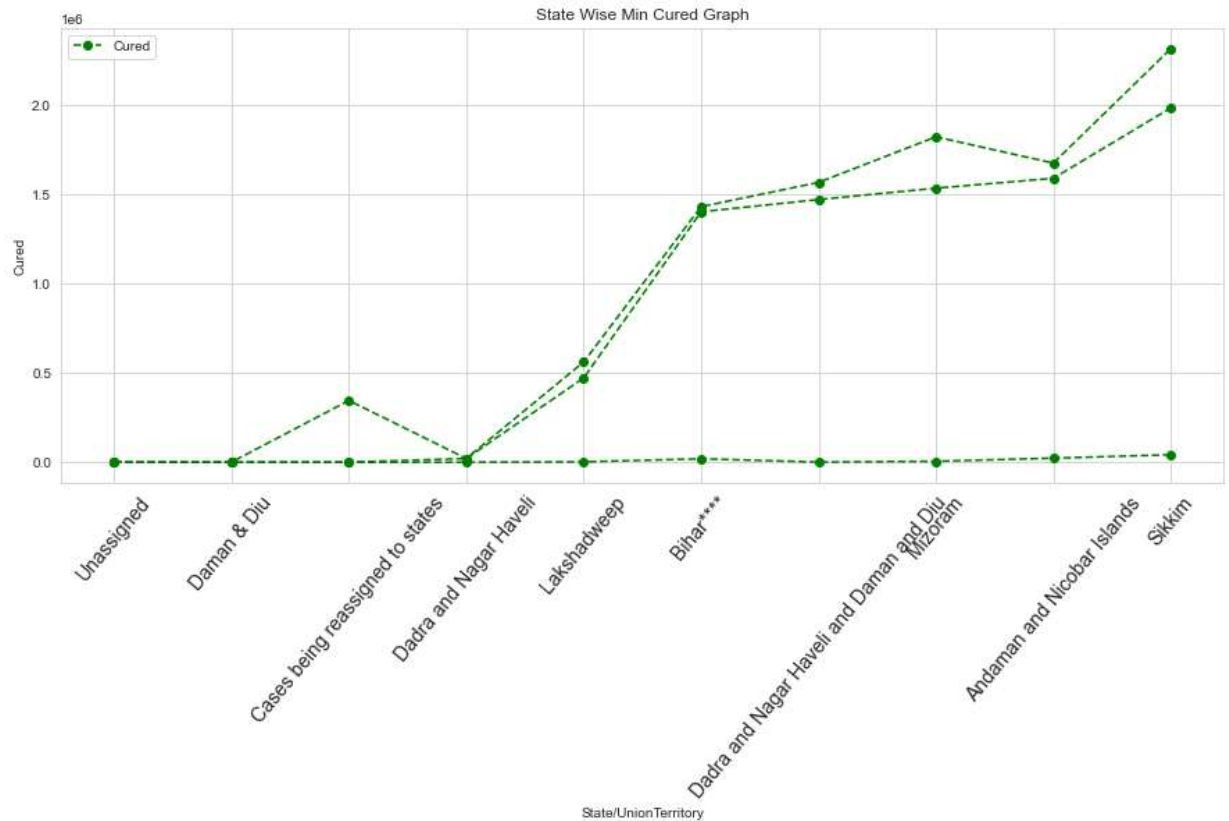
```
In [53]: d4 = data.groupby('State/UnionTerritory').sum()
e5 = d4.sort_values('Cured',ascending=True) # State wise Data Min deaths
f6 = e5[['Deaths','Confirmed','Cured']].head(10)
f6
```

Out[53]:

	Deaths	Confirmed	Cured
State/UnionTerritory			
Unassigned	0	161	0
Daman & Diu	0	2	0
Cases being reassigned to states	0	345565	0
Dadra and Nagar Haveli	8	20722	20352
Lakshadweep	2178	561459	471712
Bihar****	18881	1430909	1402468
Dadra and Nagar Haveli and Daman and Diu	874	1566846	1470986
Mizoram	5073	1822190	1534630
Andaman and Nicobar Islands	22624	1675248	1589935
Sikkim	41530	2315519	1983899

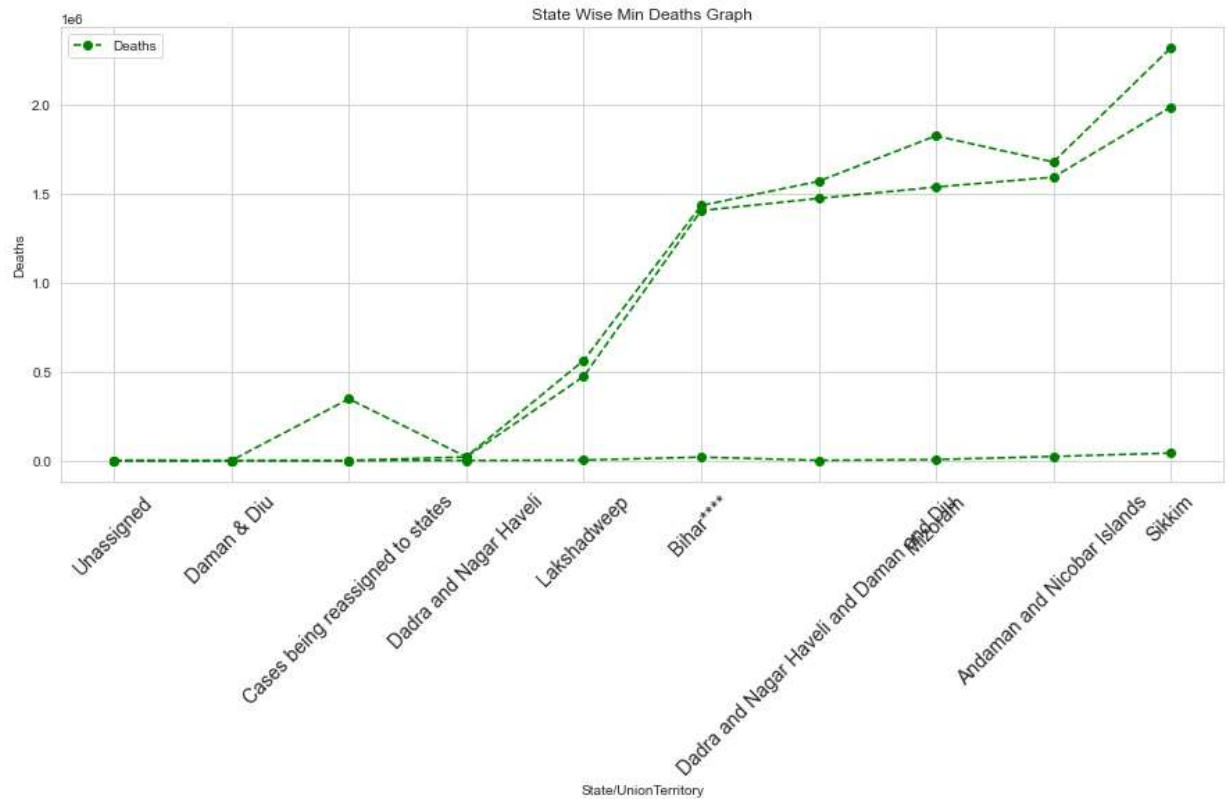
```
In [56]: fig = plt.figure(figsize=(15,6))
plt.xticks(rotation=50,fontsize=14)
plt.plot(f6,'g--o')
plt.legend(['Cured'])
plt.xlabel('State/UnionTerritory')
plt.ylabel('Cured')
plt.title('State Wise Min Cured Graph')
```

Out[56]: Text(0.5, 1.0, 'State Wise Min Cured Graph')



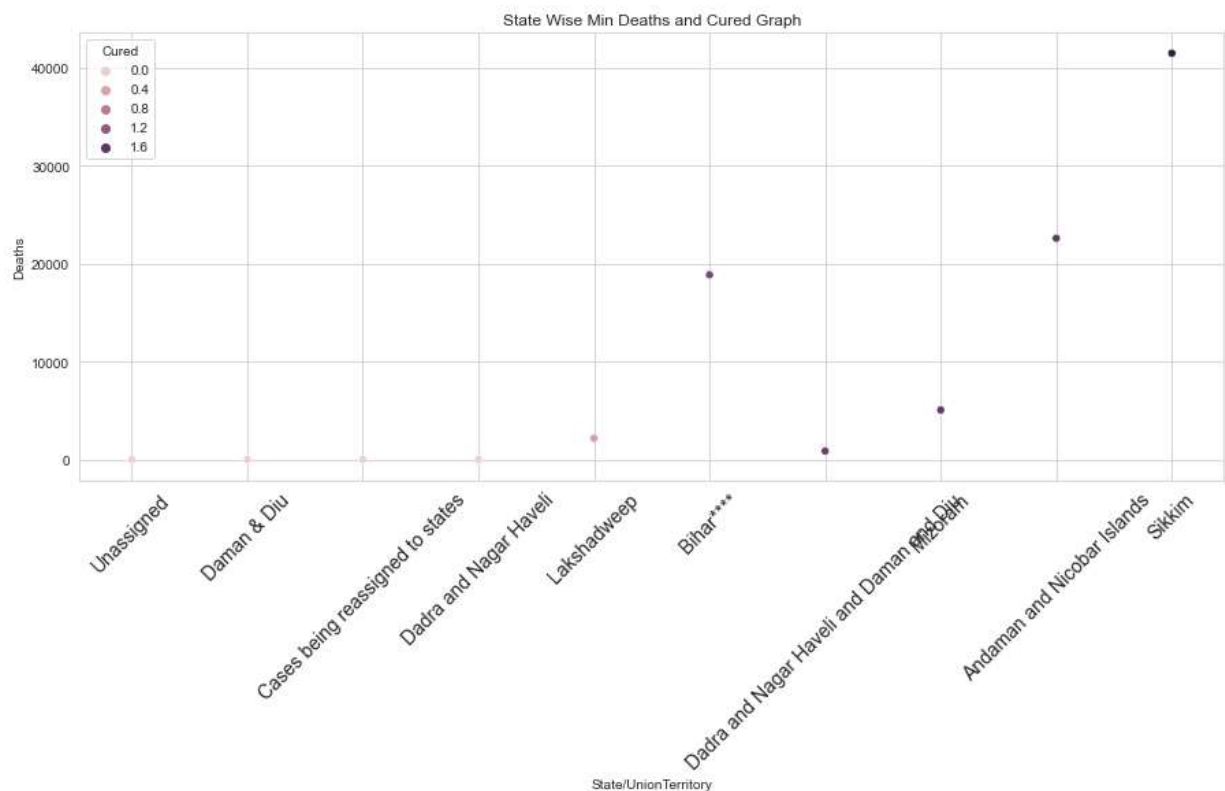
```
In [55]: fig = plt.figure(figsize=(15,6))
plt.xticks(rotation=45,fontsize=14)
plt.plot(f6, 'g--o')
plt.legend(['Deaths'])
plt.xlabel('State/UnionTerritory')
plt.ylabel('Deaths')
plt.title('State Wise Min Deaths Graph')
```

Out[55]: Text(0.5, 1.0, 'State Wise Min Deaths Graph')



```
In [59]: fig = plt.figure(figsize=(15,6))
plt.xticks(rotation=45,fontsize=14)
sns.scatterplot(x='State/UnionTerritory',y='Deaths',hue='Cured',data=f6,color='#f
plt.title('State Wise Min Deaths and Cured Graph')
```

```
Out[59]: Text(0.5, 1.0, 'State Wise Min Deaths and Cured Graph')
```



```
In [ ]:
```

```
In [ ]:
```