In [27]:
```
import numpy as np
from math import pi
import pandas as pd
from matplotlib import pyplot as plt
%matplotlib inline

data=pd.read_csv("D:\covid-19-india.csv")


print(data.head(4))
```

```
  Sno         Date      Time State/UnionTerritory ConfirmedIndianNationa
l  \
0    1  30-01-2020  06:00 PM               Kerala
1
1    2  31-01-2020  06:00 PM               Kerala
1
2    3  01-02-2020  06:00 PM               Kerala
2
3    4  02-02-2020  06:00 PM               Kerala
3

  ConfirmedForeignNational  Cured  Deaths  Confirmed
0                        0      0       0          1
1                        0      0       0          1
2                        0      0       0          2
3                        0      0       0          3
```

In [11]:
```
data.shape
data.isnull().sum()
```

Out[11]:
```
Sno                        0
Date                       0
Time                       0
State/UnionTerritory       0
ConfirmedIndianNational    0
ConfirmedForeignNational   0
Cured                      0
Deaths                     0
Confirmed                  0
dtype: int64
```

In [14]:
```
data.groupby(['Date'])['Confirmed','Cured','Deaths','State/UnionTerritor
y'].max()
```

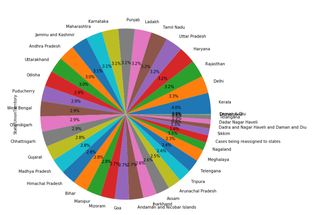
Out[14]:

Date	Confirmed	Cured	Deaths	State/UnionTerritory
01-02-2020	2	0	0	Kerala
01-03-2020	3	0	0	Kerala
01-04-2020	302	39	9	West Bengal
01-05-2020	10498	1773	459	West Bengal
01-06-2020	67655	29329	2286	West Bengal
...	...	...	...	...
30-05-2020	62228	26997	2098	West Bengal
30-06-2020	169883	88960	7610	West Bengal
31-01-2020	1	0	0	Kerala
31-03-2020	234	39	9	West Bengal
31-05-2020	65168	28081	2197	West Bengal

171 rows × 4 columns

In [16]:
```
plt.figure(figsize=(20,10))
data['State/UnionTerritory'].value_counts().plot.pie(autopct='%1.1f%%')
```

Out[16]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x202fb59bec8>
```



In [18]:
```
covid_per_day=data.groupby(['Date'])['Confirmed','Cured','Deaths'].max()
covid_per_day
```

Out[18]:

Date	Confirmed	Cured	Deaths
01-02-2020	2	0	0
01-03-2020	3	0	0
01-04-2020	302	39	9
01-05-2020	10498	1773	459
01-06-2020	67655	29329	2286
...	...	...	...
30-05-2020	62228	26997	2098
30-06-2020	169883	88960	7610
31-01-2020	1	0	0
31-03-2020	234	39	9
31-05-2020	65168	28081	2197

171 rows × 3 columns

In [19]:
```
covid_per_day['Confirmed'].max()
```

Out[19]:
```
292589
```

In [30]:
```
covid_per_day['Confirmed'].idxmax()
```

Out[30]:
```
'18-07-2020'
```

In [31]:
```
covid_per_day['Confirmed'].idxmin()
```

Out[31]:
```
'30-01-2020'
```

In [32]:
```
data['State/UnionTerritory'].value_counts()
```

Out[32]:
```
Kerala                                171
Delhi                                 139
Rajasthan                             138
Uttar Pradesh                         137
Haryana                               137
Tamil Nadu                            134
Ladakh                                134
Maharashtra                           132
Karnataka                             132
Jammu and Kashmir                     132
Punjab                                132
Andhra Pradesh                        129
Uttarakhand                           126
Odisha                                125
Puducherry                            123
West Bengal                           123
Chhattisgarh                          122
Gujarat                               121
Madhya Pradesh                        120
Himachal Pradesh                      120
Bihar                                 119
Manipur                               117
Mizoram                               116
Goa                                   115
Andaman and Nicobar Islands           115
Assam                                 109
Jharkhand                             109
Arunachal Pradesh                     107
Tripura                               103
Telengana                             102
Meghalaya                              96
Nagaland                               63
Cases being reassigned to states       60
Sikkim                                 56
Dadar Nagar Haveli                     37
Telangana                              37
Dadra and Nagar Haveli and Daman and Diu    37
Unassigned                              3
Daman & Diu                             1
Name: State/UnionTerritory, dtype: int64
```

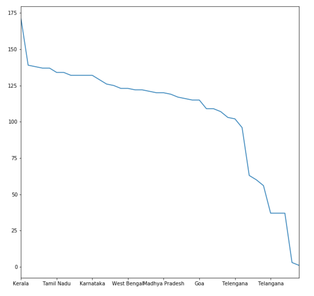
In [20]:
```
data.describe()
```

Out[20]:

	Sno	Cured	Deaths	Confirmed
count	4251.000000	4251.000000	4251.000000	4251.000000
mean	2126.000000	3700.771113	190.635380	6631.299929
std	1227.302326	12863.028527	826.647385	22204.574771
min	1.000000	0.000000	0.000000	0.000000
25%	1063.500000	4.000000	0.000000	33.000000
50%	2126.000000	87.000000	3.000000	400.000000
75%	3188.500000	1641.000000	42.000000	3423.000000
max	4251.000000	160357.000000	11452.000000	292589.000000

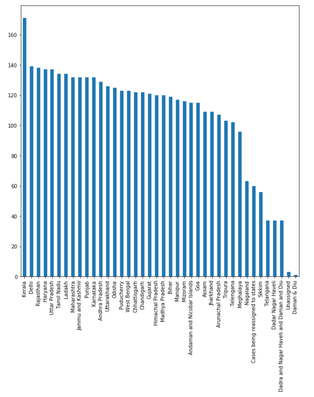
In [13]:
```
plt.figure(figsize=(10,10))
data['State/UnionTerritory'].value_counts().plot()
```

Out[13]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x257d5edd288>
```



In [15]:
```
plt.figure(figsize=(10,10))
data['State/UnionTerritory'].value_counts().plot.bar()
```

Out[15]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x257d5fa94c8>
```



In [ ]:

In [ ]: