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 1 0 1 30-01-2020 06:00 PM Kerala 1 1 2 31-01-2020 06:00 PM Kerala 1 3 01-02-2020 06:00 PM 2 Kerala 2 3 4 02-02-2020 06:00 PM Kerala 3 ConfirmedForeignNational Cured Deaths Confirmed 0 0 0 0 1 0 0 2 0 0 0 2 3 0 0 0 In [11]: data.shape data.isnull().sum() Out[11]: Sno 0 0 Date Time 0 State/UnionTerritory 0 0 ConfirmedIndianNational ConfirmedForeignNational 0 Cured 0 Deaths 0 0 Confirmed dtype: int64 In [14]: data.groupby(['Date'])['Confirmed','Cured','Deaths','State/UnionTerritor y'].max() Out[14]: Confirmed Cured Deaths State/UnionTerritory Date 01-02-2020 2 0 0 Kerala 01-03-2020 3 0 Kerala 0 01-04-2020 302 39 9 West Bengal 01-05-2020 10498 1773 459 West Bengal 01-06-2020 67655 29329 2286 West Bengal 62228 26997 30-05-2020 2098 West Bengal West Bengal 30-06-2020 169883 88960 7610 31-01-2020 0 1 Kerala 31-03-2020 234 39 9 West Bengal West Bengal 31-05-2020 65168 28081 2197 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> Punjab Ladakh Maharashtra Jammu and Kashmir Uttar Pradesh Andhra Pradesh Uttarakhand 3.1% 3.1% 3.2% Rajasthan Odisha Puducherry 2.9% Kerala Weat Bengal 2.9% Dadar Nagar Haveli Dadra and Nagar Haveli and Daman and Diu Chandigarh Sikkim Chhattisgarh Cases being reassigned to states Nagaland Gujarat Meghalaya Madhya Pradesh Tripura Himachal Pradesh Arunachal Pradesh Manipu Jharkhand Andaman and Nicobar Islands Mizoram Goa In [18]: covid_per_day=data.groupby(['Date'])['Confirmed', 'Cured', 'Deaths'].max() covid_per_day Out[18]: Confirmed Cured Deaths Date 01-02-2020 2 0 01-03-2020 3 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 0 31-03-2020 234 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 138 137 Uttar Pradesh Haryana 137 Tamil Nadu 134 134 Ladakh Maharashtra 132 Karnataka 132 Jammu and Kashmir 132 Punjab 132 129 Andhra Pradesh Uttarakhand 126 0disha 125 Puducherry 123 West Bengal 123 Chhattisgarh 122 Chandigarh 122 Gujarat 121 Madhya Pradesh 120 Himachal Pradesh 120 Bihar 119 Manipur 117 Mizoram 116 115 Goa 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 3 Unassigned Daman & Diu 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 0.000000 0.000000 1.000000 0.000000 min 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> 175 150 125 100 75 50 25 0 -Tamil Nadu Karnataka West BengalMadhya Pradesh Telengana Kerala Telangana In [15]: plt.figure(figsize=(10,10)) data['State/UnionTerritory'].value_counts().plot.bar() Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x257d5fa94c8> 160 140 120 60

Kerala – Delhi – Rajasthan – Haryana – Uttar Pradesh – Tamil Nadu –

Ladakh -Maharashtra -Jammu and Kashmir - Karnataka -Andhra Pradesh -

Punjab

Uttarakhand . Odisha .

Puducherry -West Bengal -Chhattisgarh -Chandigarh -

Gujarat Himachal Pradesh

Madhya Pradesh

Tripura -Telengana -

Arunachal Pradesh

Mizoram Andaman and Nicobar Islands

Meghalaya -Nagaland -Cases being reassigned to states -

Sikkim -Telangana -Dadar Nagar Haveli -Dadra and Nagar Haveli and Daman and Diu