

```
In [12]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

In [13]: data=pd.read_csv(r"C:\Users\LENOVO\Desktop\datasets\covid19_italy_region.csv")

In [14]: data.head()
```

	SNo	Date	Country	RegionCode	RegionName	Latitude	Longitude	HospitalizedPatients	IntensiveCarePatients	TotalHospitalizedPatients	HomeConfinement	CurrentPositiveCa
0	0	2020-02-24T18:00:00	ITA	13	Abruzzo	42.351222	13.398438	0	0	0	0	
1	1	2020-02-24T18:00:00	ITA	17	Basilicata	40.639471	15.805148	0	0	0	0	
2	2	2020-02-24T18:00:00	ITA	18	Calabria	38.905976	16.594402	0	0	0	0	
3	3	2020-02-24T18:00:00	ITA	15	Campania	40.839566	14.250850	0	0	0	0	
4	4	2020-02-24T18:00:00	ITA	8	Emilia-Romagna	44.494367	11.341721	10	2	12	6	

```
In [15]: data.columns
```

```
Out[15]: Index(['SNo', 'Date', 'Country', 'RegionCode', 'RegionName', 'Latitude', 'Longitude', 'HospitalizedPatients', 'IntensiveCarePatients', 'TotalHospitalizedPatients', 'HomeConfinement', 'CurrentPositiveCases', 'NewPositiveCases', 'Recovered', 'Deaths', 'TotalPositiveCases', 'TestsPerformed'],
      dtype='object')
```

```
In [16]: data.describe()
```

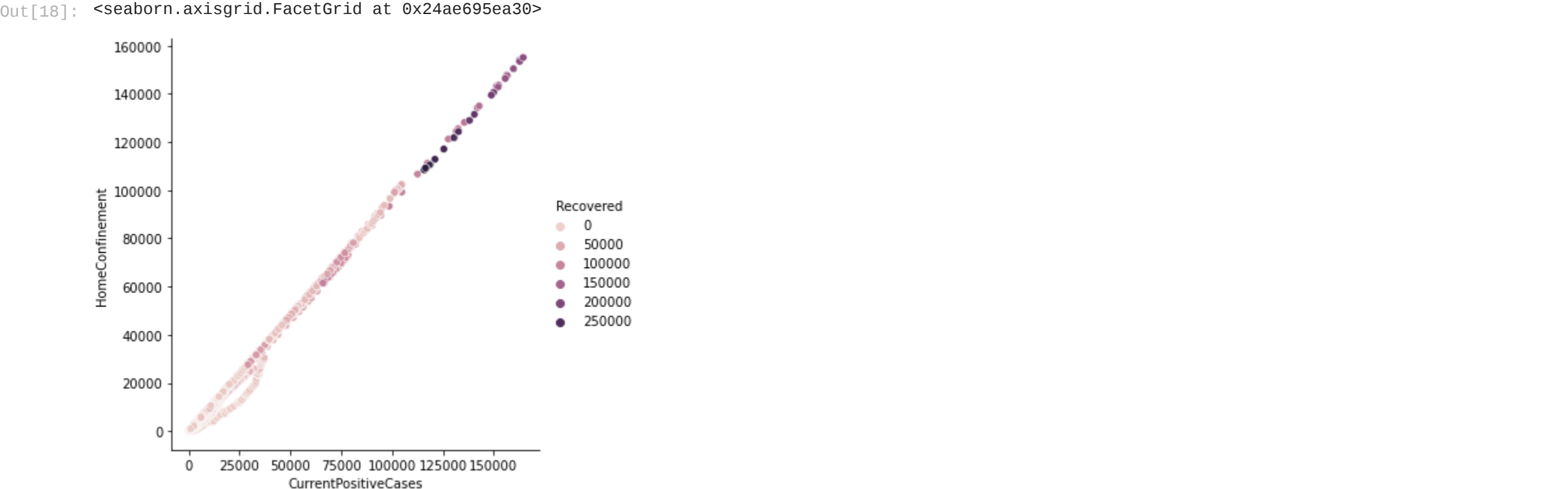
	SNo	RegionCode	Latitude	Longitude	HospitalizedPatients	IntensiveCarePatients	TotalHospitalizedPatients	HomeConfinement	CurrentPositiveCases	NewPositiveCas
count	6027.000000	6027.000000	6027.000000	6027.000000	6027.000000	6027.000000	6027.000000	6027.000000	6027.000000	6027.0000
mean	3013.000000	11.857143	43.046293	12.225955	509.093579	55.892318	564.985897	5722.911399	6287.897296	286.8858
std	1739.989368	6.274319	2.488987	2.659168	1272.731157	134.957979	1403.362341	15892.768789	16804.884786	818.4504
min	0.000000	1.000000	38.115697	7.320149	0.000000	0.000000	0.000000	0.000000	0.000000	-229.0000
25%	1506.500000	7.000000	41.125596	11.121231	16.000000	1.000000	17.000000	139.000000	168.000000	4.0000
50%	3013.000000	12.000000	43.616760	12.388247	93.000000	9.000000	106.000000	743.000000	905.000000	31.0000
75%	4519.500000	17.000000	45.434905	13.768136	384.500000	46.000000	434.000000	3057.000000	3735.000000	159.5000
max	6026.000000	22.000000	46.499335	16.867367	12077.000000	1381.000000	13328.000000	155066.000000	164406.000000	11489.0000

```
In [17]: data.isnull().sum()
```

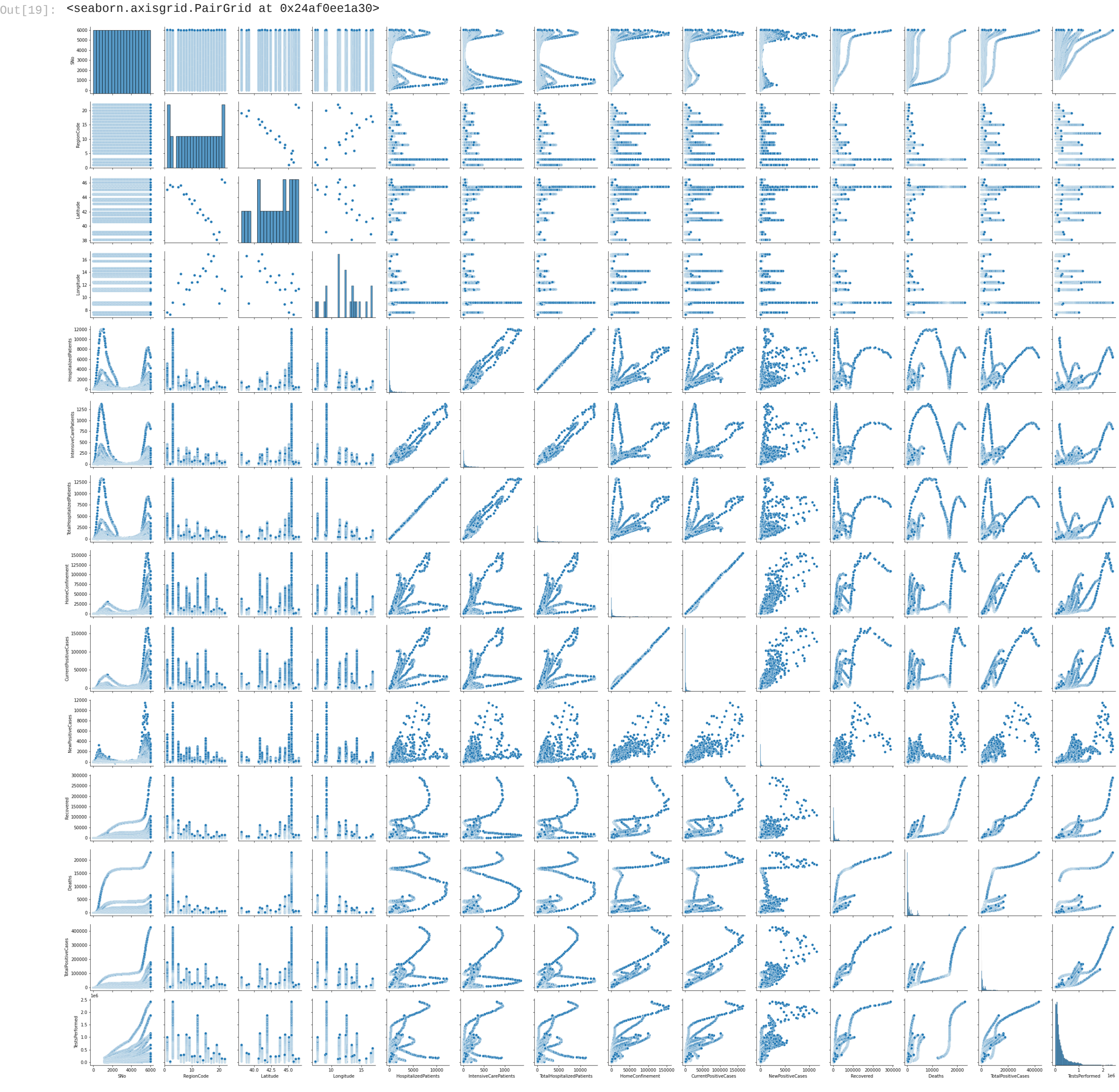
```
Out[17]: SNo          0
Date          0
Country       0
RegionCode    0
RegionName    0
Latitude      0
Longitude     0
HospitalizedPatients    0
IntensiveCarePatients  0
TotalHospitalizedPatients    0
HomeConfinement        0
CurrentPositiveCases    0
NewPositiveCases        0
Recovered              0
Deaths                0
TotalPositiveCases     0
TestsPerformed      1155
dtype: int64
```

relating the variables with scatterplots

```
In [18]: sns.relplot(x="CurrentPositiveCases",y="HomeConfinement",hue="Recovered", data=data)
```



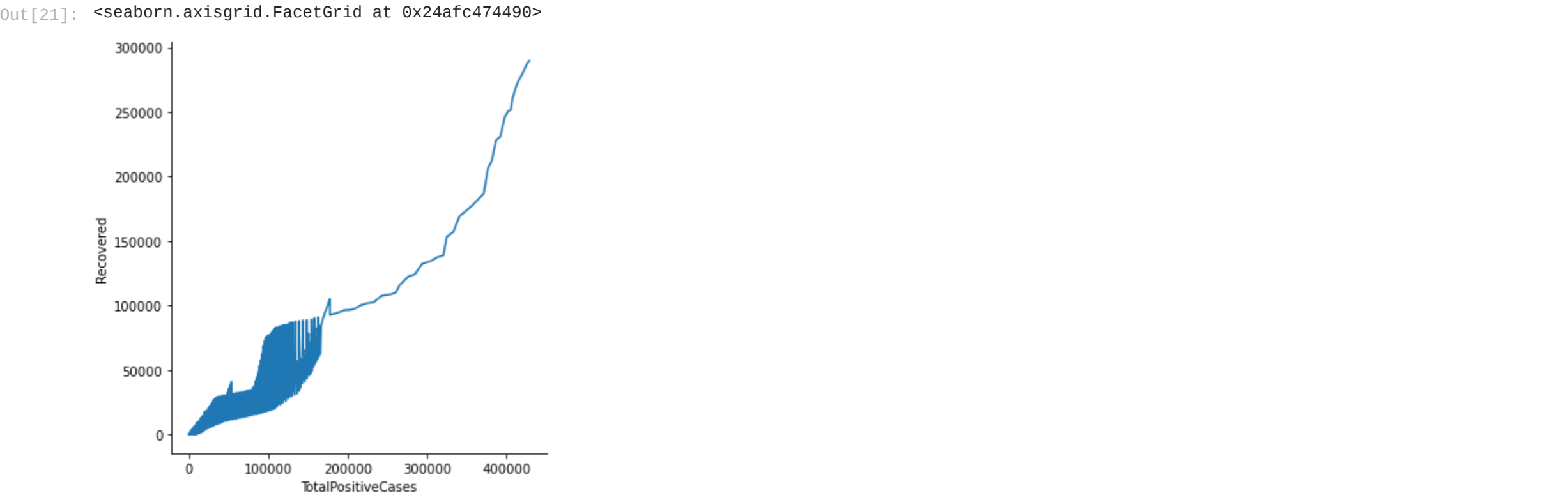
```
In [19]: sns.pairplot(data)
```



```
In [20]: data.columns
```

```
Out[20]: Index(['SNo', 'Date', 'Country', 'RegionCode', 'RegionName', 'Latitude', 'Longitude', 'HospitalizedPatients', 'IntensiveCarePatients', 'TotalHospitalizedPatients', 'HomeConfinement', 'CurrentPositiveCases', 'NewPositiveCases', 'Recovered', 'Deaths', 'TotalPositiveCases', 'TestsPerformed'],
      dtype='object')
```

```
In [21]: sns.relplot(x="TotalPositiveCases", y="Recovered", kind='line',data=data)
```



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In [ ]:
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