In [1]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [3]:

```
sample = pd.read_csv('worldometer_data.csv')
sample
```

Out[3]:

| s | TotalDeaths | NewDeaths | TotalRecovered | NewRecovered | ActiveCases | Serious,Critical | Cases/1 |
|---|-------------|-----------|----------------|--------------|-------------|------------------|---------|
| 1 | 162804.0 | NaN | 2576668.0 | NaN | 2292707.0 | 18296.0 | 15194 |
| ٧ | 98644.0 | NaN | 2047660.0 | NaN | 771258.0 | 8318.0 | 13716 |
| ٧ | 41638.0 | NaN | 1377384.0 | NaN | 606387.0 | 8944.0 | 146€ |
| ٧ | 14606.0 | NaN | 676357.0 | NaN | 180931.0 | 2300.0 | 5974 |
| ٧ | 9604.0 | NaN | 387316.0 | NaN | 141264.0 | 539.0 | 9063 |
| | | *** | | | | | |
| 1 | 1.0 | NaN | 10.0 | NaN | 2.0 | NaN | 2604 |
| 1 | NaN | NaN | 7.0 | NaN | 6.0 | NaN | 49{ |
| 1 | NaN | NaN | 13.0 | NaN | 0.0 | NaN | 3726 |
| ٧ | NaN | NaN | 12.0 | NaN | 0.0 | NaN | 14981 |
| ٧ | 1.0 | NaN | 8.0 | NaN | 1.0 | NaN | 17 |
| | | | | | | | |
| 4 | 1 | | | | | | • |

```
In [4]:
```

```
sample.isnull()
```

Out[4]:

| ntry/Region | Continent | Population | TotalCases | NewCases | TotalDeaths | NewDeaths | TotalRecover |
|-------------|-----------|------------|------------|----------|-------------|-----------|--------------|
| False | False | False | False | True | False | True | Fal |
| False | False | False | False | True | False | True | Fal |
| False | False | False | False | True | False | True | Fal |
| False | False | False | False | True | False | True | Fal |
| False | False | False | False | True | False | True | Fal |
| | | | | | | | |
| False | False | False | False | True | False | True | Fal |
| False | False | False | False | True | True | True | Fal |
| False | False | False | False | True | True | True | Fal |
| False | False | False | False | True | True | True | Fal |
| False | False | False | False | True | False | True | Fal |

⋆ 16 columns

←

In [5]:

```
sample.isnull().any(axis=1)
```

Out[5]:

- 0 True
- 1 True
- 2 True
- 3 True
- 4 True ...
- 204 True
- 205 True
- 206 True
- 207 True208 True
- Length: 209, dtype: bool

In [7]:

```
sample2 = sample[sample.isnull().any(axis=1)]
sample2
```

Out[7]:

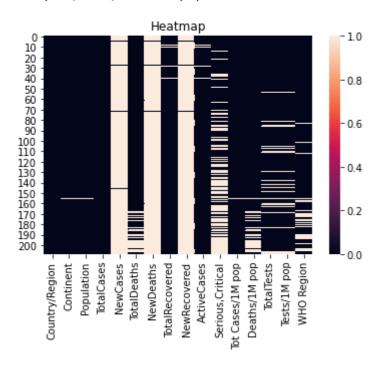
| Deaths | NewDeaths | TotalRecovered | NewRecovered | ActiveCases | Serious,Critical | Tot Cases/1M pop | Dea |
|--------|-----------|----------------|--------------|-------------|------------------|------------------------|-----|
| 2804.0 | NaN | 2576668.0 | NaN | 2292707.0 | 18296.0 | 15194.0 | |
| 8644.0 | NaN | 2047660.0 | NaN | 771258.0 | 8318.0 | 13716.0 | |
| 1638.0 | NaN | 1377384.0 | NaN | 606387.0 | 8944.0 | 1466.0 | |
| 4606.0 | NaN | 676357.0 | NaN | 180931.0 | 2300.0 | 5974.0 | |
| 9604.0 | NaN | 387316.0 | NaN | 141264.0 | 539.0 | 9063.0 | |
| | ••• | | | ••• | | | |
| 1.0 | NaN | 10.0 | NaN | 2.0 | NaN | 2604.0 | |
| NaN | NaN | 7.0 | NaN | 6.0 | NaN | 495.0 | |
| NaN | NaN | 13.0 | NaN | 0.0 | NaN | 3726.0 | |
| NaN | NaN | 12.0 | NaN | 0.0 | NaN | 14981.0 | |
| 1.0 | NaN | 8.0 | NaN | 1.0 | NaN | 17.0 | |

In [10]:

```
sns.heatmap(sample.isnull())
plt.title('Heatmap')
```

Out[10]:

Text(0.5, 1.0, 'Heatmap')

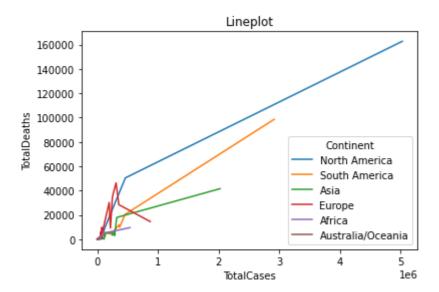


In [14]:

```
sns.lineplot(data=sample,x='TotalCases', y='TotalDeaths',hue='Continent')
plt.title('Lineplot')
```

Out[14]:

Text(0.5, 1.0, 'Lineplot')

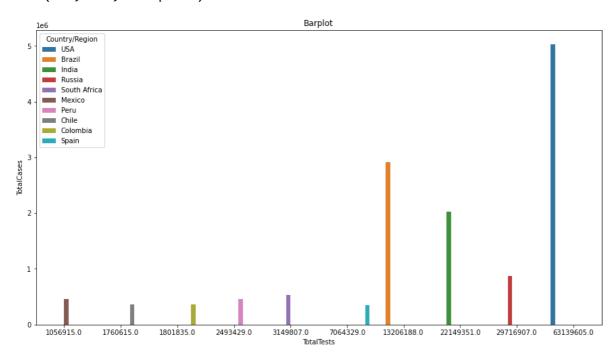


In [24]:

```
plt.figure(figsize=(15,8))
sns.barplot(data=sample.head(10),x='TotalTests',y = 'TotalCases',hue='Country/Region')
plt.title('Barplot')
```

Out[24]:

Text(0.5, 1.0, 'Barplot')

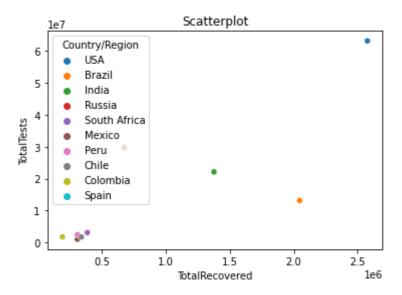


In [26]:

```
sns.scatterplot(data=sample.head(10),x='TotalRecovered',y='TotalTests',hue='Country/Region'
plt.title('Scatterplot')
```

Out[26]:

Text(0.5, 1.0, 'Scatterplot')

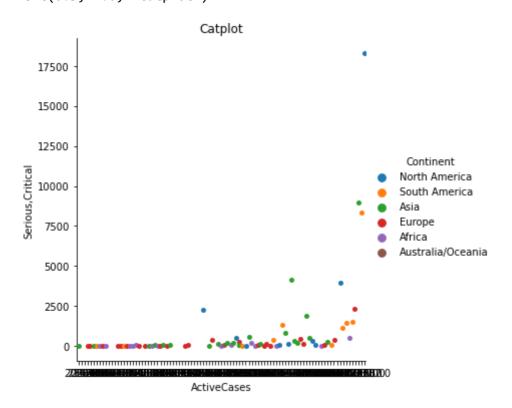


In [32]:

```
sns.catplot(data=sample.head(100),x='ActiveCases',y='Serious,Critical',hue='Continent')
plt.title('Catplot')
```

Out[32]:

Text(0.5, 1.0, 'Catplot')



In [31]:

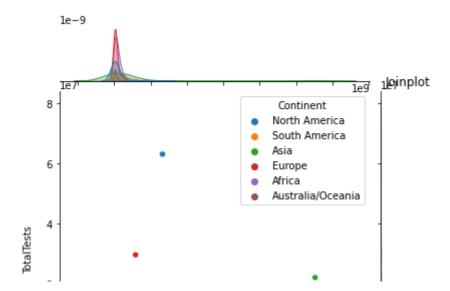
```
sns.lmplot(data=sample,x='Tot Cases/1M pop',y='Deaths/1M pop',hue='WHO Region')
plt.title('Lmplot')
Out[31]:
Text(0.5, 1.0, 'Lmplot')
                            Lmplot
   1200
   1000
    800
                                                              WHO Region
Deaths/1M pop
                                                             Americas
                                                             South-EastAsia
    600
                                                             Europe
                                                             Africa
                                                             EasternMediterranean
    400
                                                             WesternPacific
```

In [43]:

sns.jointplot(data=sample,x='Population',y='TotalTests',hue='Continent')
plt.title('Joinplot')

Out[43]:

Text(0.5, 1.0, 'Joinplot')

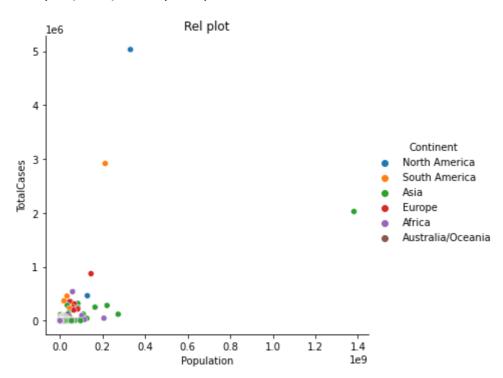


In [41]:

```
sns.relplot(data=sample,x='Population',y='TotalCases',hue='Continent')
plt.title('Rel plot')
```

Out[41]:

Text(0.5, 1.0, 'Rel plot')

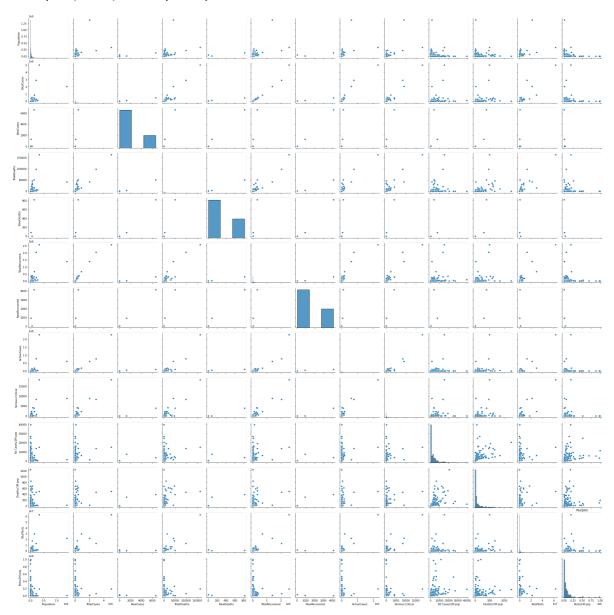


In [44]:

```
sns.pairplot(sample)
plt.title("Pairplot")
```

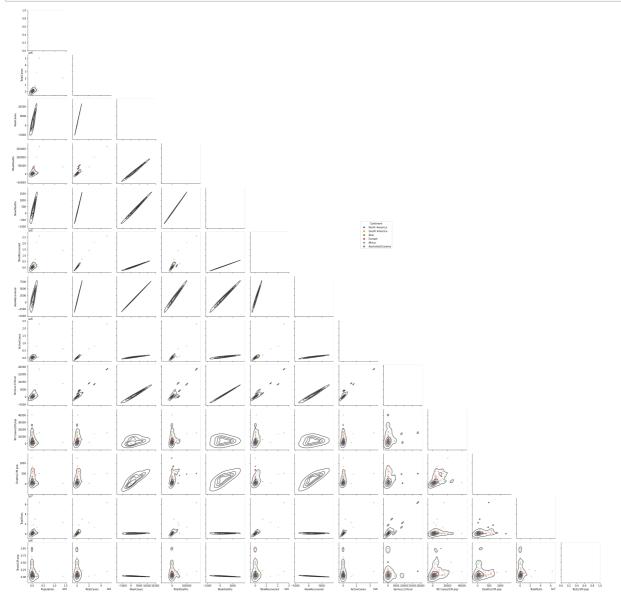
Out[44]:

Text(0.5, 1.0, 'Pairplot')



In [50]:

```
g = sns.PairGrid(sample, hue="Continent", corner=True)
g.map_lower(sns.kdeplot, hue=None, levels=5, color=".2")
g.map_lower(sns.scatterplot, marker="+")
g.add_legend(frameon=True)
g.legend.set_bbox_to_anchor((.61, .6))
```



In [57]:

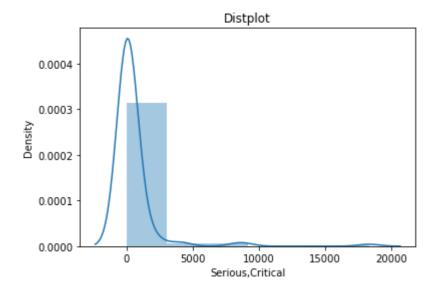
```
sns.distplot(sample['Serious,Critical'],bins=6)
plt.title('Distplot')
```

C:\Users\Rohith Raj\anaconda3\lib\site-packages\seaborn\distributions.py:255
1: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-l evel function with similar flexibility) or `histplot` (an axes-level function for histograms).

warnings.warn(msg, FutureWarning)

Out[57]:

Text(0.5, 1.0, 'Distplot')



In []: