Unemployment Analysis Using Python

Import important libraries and dataset

In [1]:

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

In [2]:

```
data = pd.read_csv("C:\\Users\\91989\\Downloads\\Unemployment in India.csv")
data
```

Out[2]:

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Area
0	Andhra Pradesh	31-05-2019	Monthly	3.65	11999139.0	43.24	Rural
1	Andhra Pradesh	30-06-2019	Monthly	3.05	11755881.0	42.05	Rural
2	Andhra Pradesh	31-07-2019	Monthly	3.75	12086707.0	43.50	Rural
3	Andhra Pradesh	31-08-2019	Monthly	3.32	12285693.0	43.97	Rural
4	Andhra Pradesh	30-09-2019	Monthly	5.17	12256762.0	44.68	Rural
...	...	...	...	...	...	...	...
763	NaN	NaN	NaN	NaN	NaN	NaN	NaN
764	NaN	NaN	NaN	NaN	NaN	NaN	NaN
765	NaN	NaN	NaN	NaN	NaN	NaN	NaN
766	NaN	NaN	NaN	NaN	NaN	NaN	NaN
767	NaN	NaN	NaN	NaN	NaN	NaN	NaN

768 rows × 7 columns

In [3]:

```
data = pd.read_csv("C:\\Users\\91989\\Downloads\\Unemployment_Rate_upto_11_2020.csv")
data
```

Out[3]:

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Region.1	longitude
0	Andhra Pradesh	31-01-2020	M	5.48	16635535	41.02	South	15.9129
1	Andhra Pradesh	29-02-2020	M	5.83	16545652	40.90	South	15.9129
2	Andhra Pradesh	31-03-2020	M	5.79	15881197	39.18	South	15.9129
3	Andhra Pradesh	30-04-2020	M	20.51	11336911	33.10	South	15.9129
4	Andhra Pradesh	31-05-2020	M	17.43	12988845	36.46	South	15.9129
...	...	...	...	...	...	...	...	...
262	West Bengal	30-06-2020	M	7.29	30726310	40.39	East	22.9868
263	West Bengal	31-07-2020	M	6.83	35372506	46.17	East	22.9868
264	West Bengal	31-08-2020	M	14.87	33298644	47.48	East	22.9868
265	West Bengal	30-09-2020	M	9.35	35707239	47.73	East	22.9868
266	West Bengal	31-10-2020	M	9.98	33962549	45.63	East	22.9868

267 rows × 9 columns

In [4]:

```
data = pd.read_csv("C:\\Users\\91989\\Downloads\\Unemployment in India.csv")
data = pd.read_csv("C:\\Users\\91989\\Downloads\\Unemployment_Rate_upto_11_2020.csv")
print(data.head())
```

```
           Region         Date  Frequency   Estimated Unemployment Rate
(%)  \
0  Andhra Pradesh   31-01-2020          M                             5.4
8
1  Andhra Pradesh   29-02-2020          M                             5.8
3
2  Andhra Pradesh   31-03-2020          M                             5.7
9
3  Andhra Pradesh   30-04-2020          M                            20.5
1
4  Andhra Pradesh   31-05-2020          M                            17.4
3

    Estimated Employed   Estimated Labour Participation Rate (%) Region.1
\
0             16635535                                    41.02    South
1             16545652                                    40.90    South
2             15881197                                    39.18    South
3             11336911                                    33.10    South
4             12988845                                    36.46    South

   longitude  latitude
0    15.9129     79.74
1    15.9129     79.74
2    15.9129     79.74
3    15.9129     79.74
4    15.9129     79.74
```

In [5]:

```
print(data.isnull().sum())
```

```
Region                                  0
 Date                                   0
 Frequency                              0
 Estimated Unemployment Rate (%)        0
 Estimated Employed                     0
 Estimated Labour Participation Rate (%)    0
Region.1                                0
longitude                               0
latitude                                0
dtype: int64
```

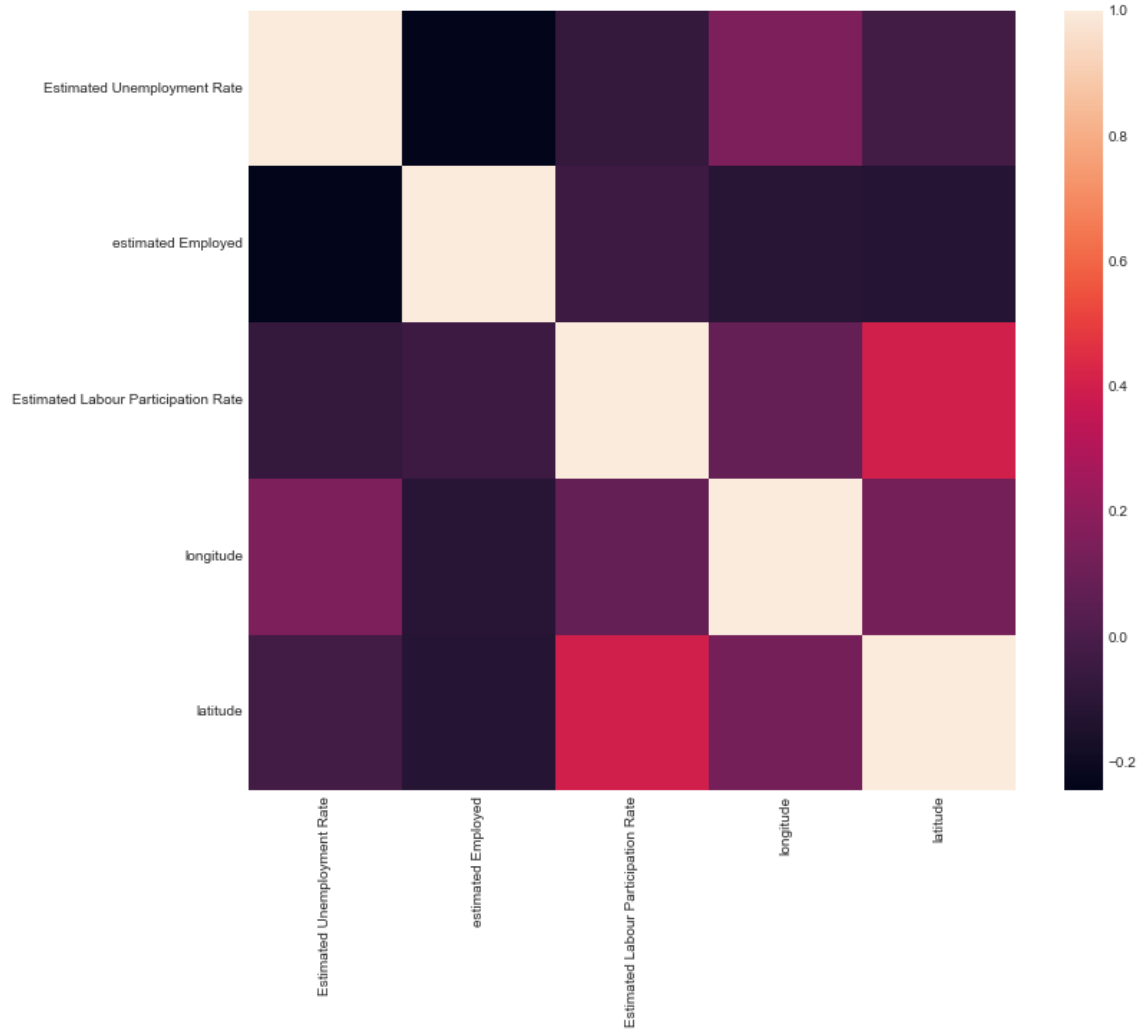
In [6]:

```
data.columns=["States","Date","Frequency","Estimated Unemployment Rate",
              "estimated Employed","Estimated Labour Participation Rate",
               "Region","longitude","latitude"]
```

correlation

In [7]:

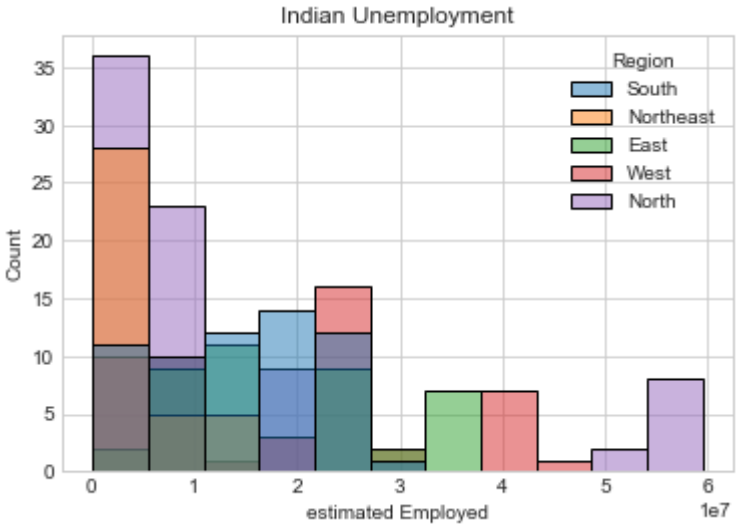
```
plt.style.use('seaborn-whitegrid')
plt.figure(figsize=(12,10))
sns.heatmap(data.corr())
plt.show()
```



data visualisation

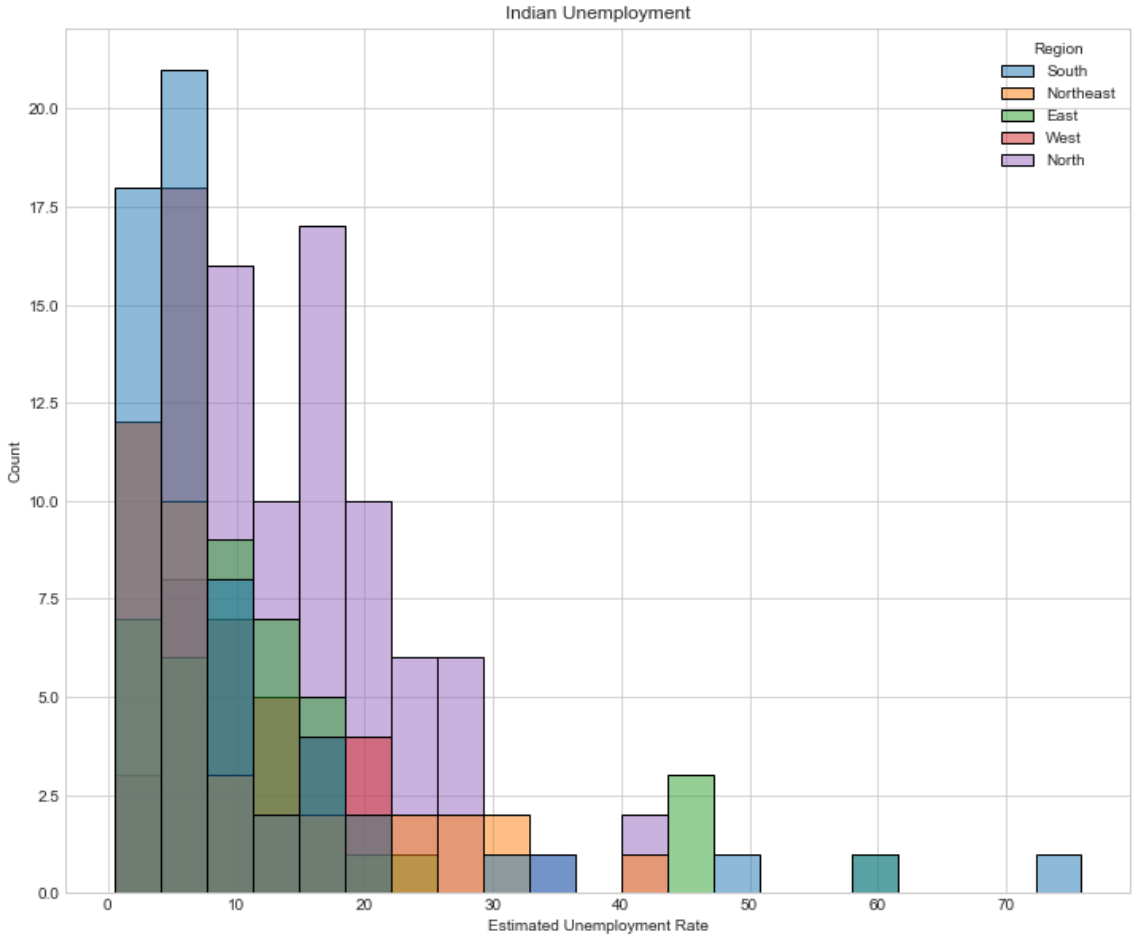
In [8]:

```
data.columns=["States","Date","Frequency","Estimated Unemployment Rate",
              "estimated Employed","Estimated Labour Participation Rate",
               "Region","longitude","latitude"]
plt.title("Indian Unemployment")
sns.histplot(x="estimated Employed", hue="Region",data=data)
plt.show()
```



In [9]:

```
plt.figure(figsize=(12,10))
plt.title("Indian Unemployment")
sns.histplot(x="Estimated Unemployment Rate", hue="Region",data=data)
plt.show()
```



In [ ]: