Unemployment Analysis with Python

Double-click (or enter) to edit

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

data = pd.read_csv("https://raw.githubusercontent.com/amankharwal/Website-data/master/unempl
print(data.head())
```

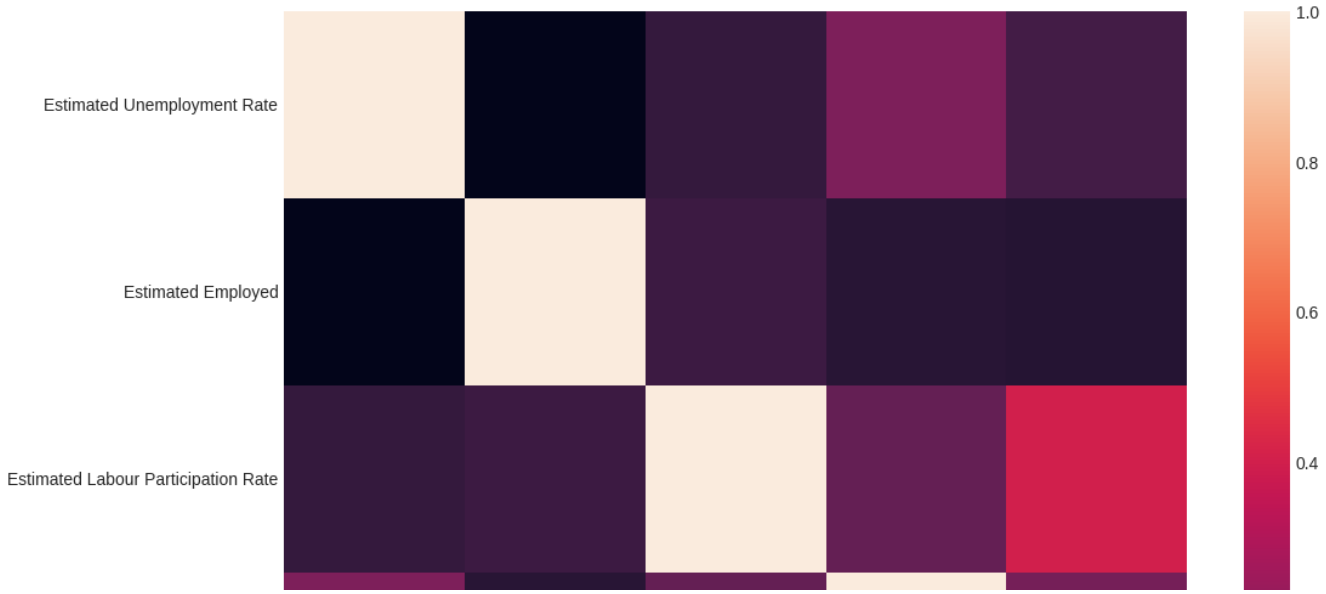
```
                Region         Date  Frequency   Estimated Unemployment Rate (%)  \
     0  Andhra Pradesh   31-01-2020          M                              5.48
     1  Andhra Pradesh   29-02-2020          M                              5.83
     2  Andhra Pradesh   31-03-2020          M                              5.79
     3  Andhra Pradesh   30-04-2020          M                             20.51
     4  Andhra Pradesh   31-05-2020          M                             17.43

         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
```

```
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
```

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


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

```
<ipython-input-13-0c964a6ebb84>:1: MatplotlibDeprecationWarning: The seaborn styles shi
  plt.style.use('seaborn-whitegrid')
<ipython-input-13-0c964a6ebb84>:3: FutureWarning: The default value of numeric_only in D
  sns.heatmap(data.corr())
```




```
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()
```

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

Indian Unemployment

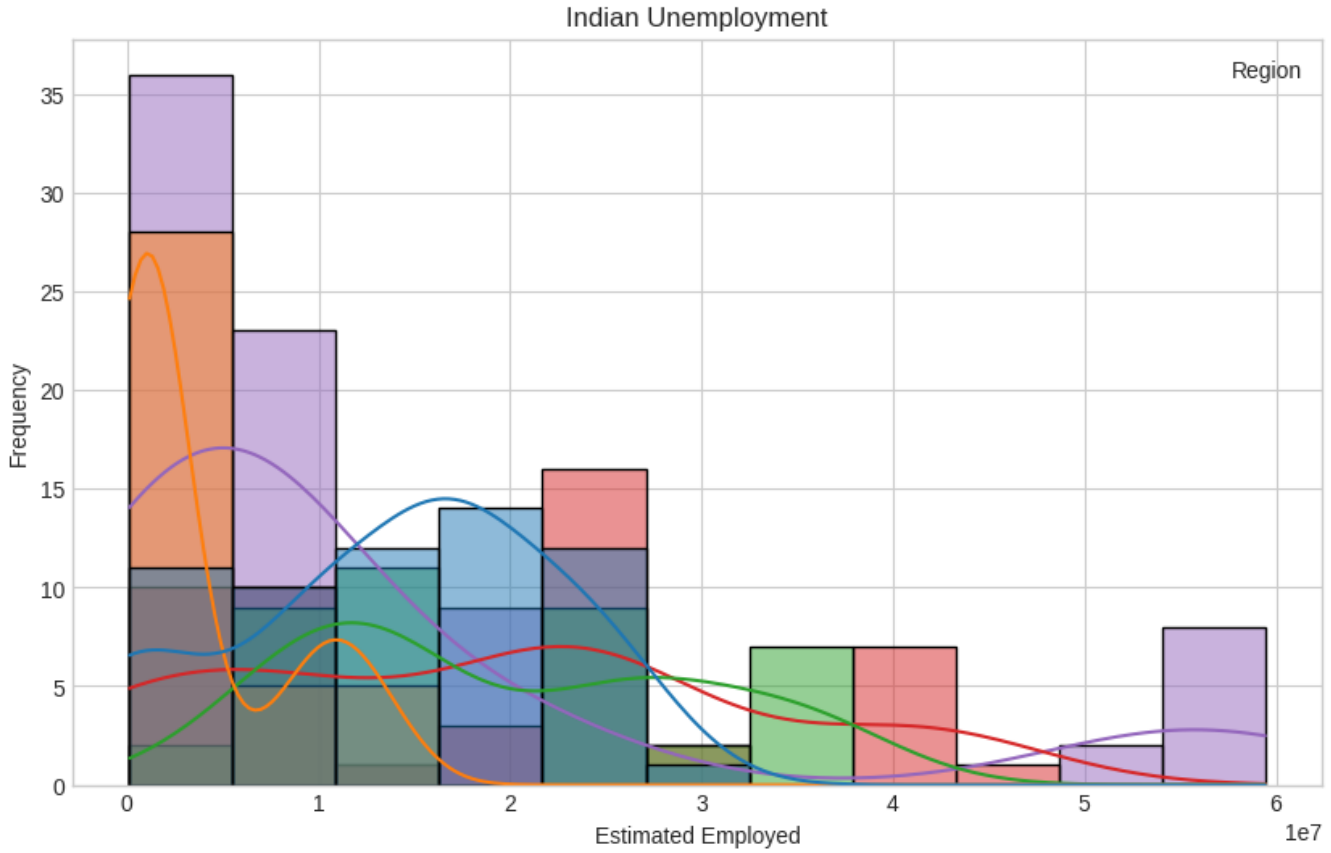
```
unemploment = data[["States", "Region", "Estimated Unemployment Rate"]]
figure = px.sunburst(unemploment, path=["Region", "States"],
                     values="Estimated Unemployment Rate",
                     width=700, height=700, color_continuous_scale="RdY1Gn",
                     title="Unemployment Rate in India")
figure.show()
```

```
import matplotlib.pyplot as plt
import seaborn as sns
```

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

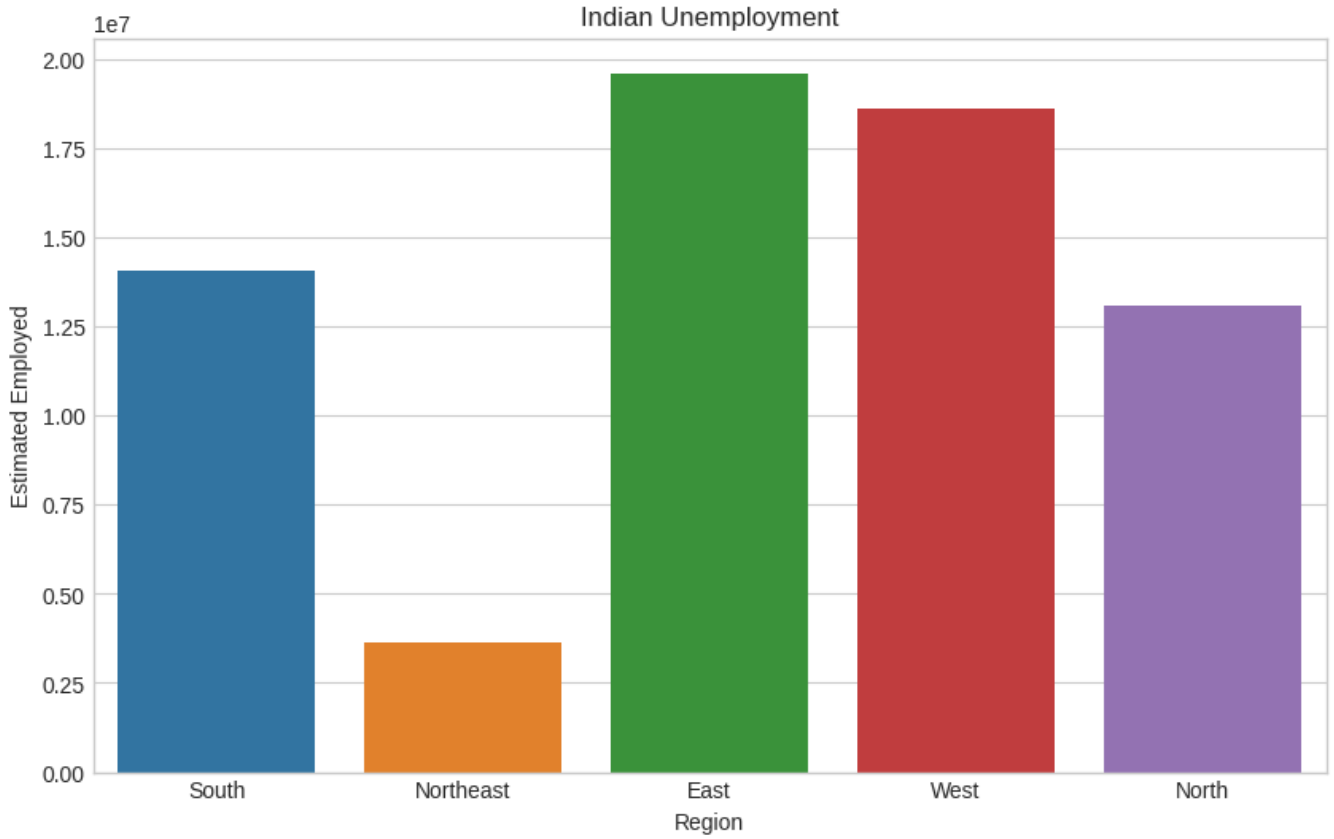
```
plt.figure(figsize=(10, 6))
plt.title("Indian Unemployment")
sns.histplot(x="Estimated Employed", hue="Region", data=data, kde=True)
plt.xlabel("Estimated Employed")
plt.ylabel("Frequency")
plt.legend(title="Region")
plt.show()
```

```
WARNING:matplotlib.legend:No artists with labels found to put in legend.  Note that arti
```

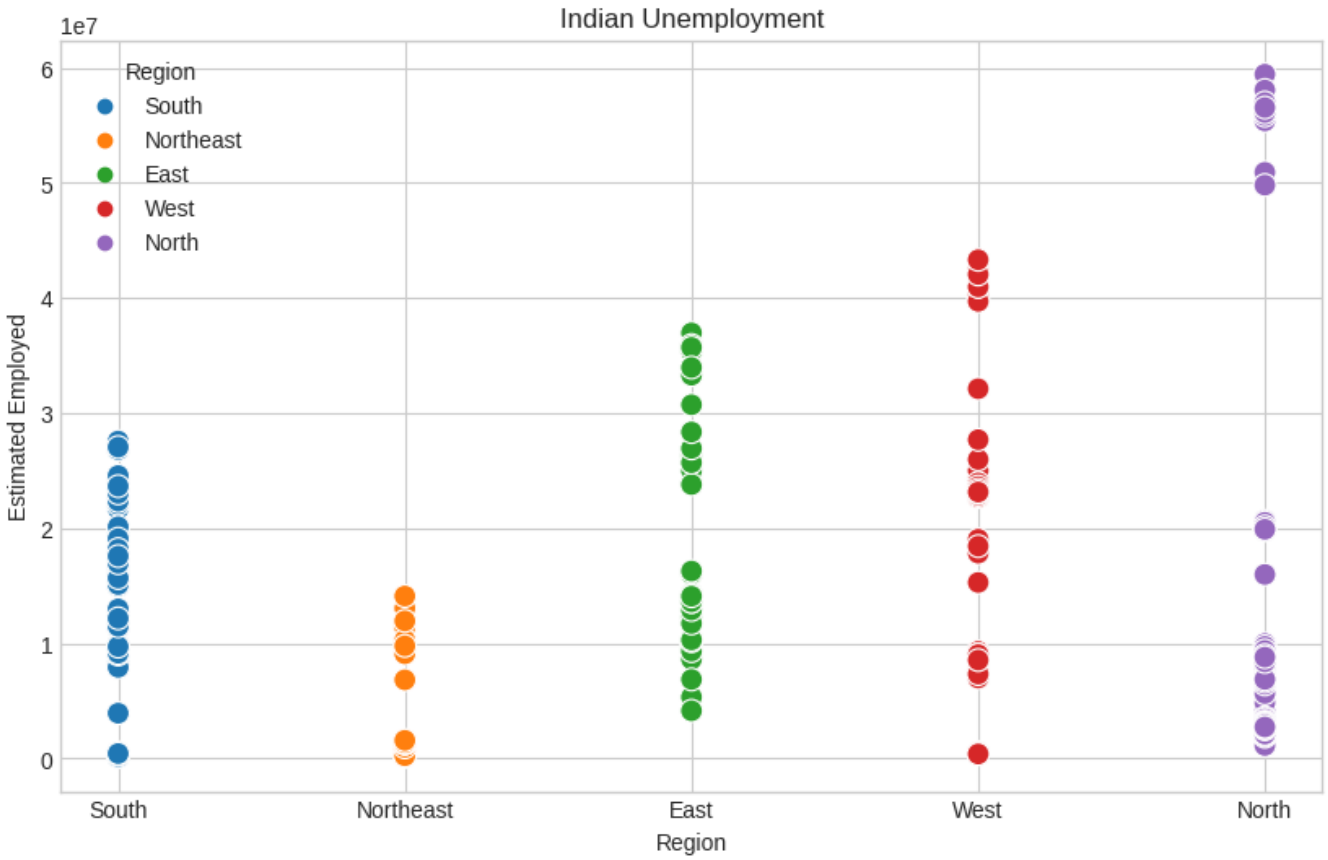


```
plt.figure(figsize=(10, 6))
plt.title("Indian Unemployment")
sns.barplot(x="Region", y="Estimated Employed", data=data, ci=None)
plt.xlabel("Region")
plt.ylabel("Estimated Employed")
plt.show()
```

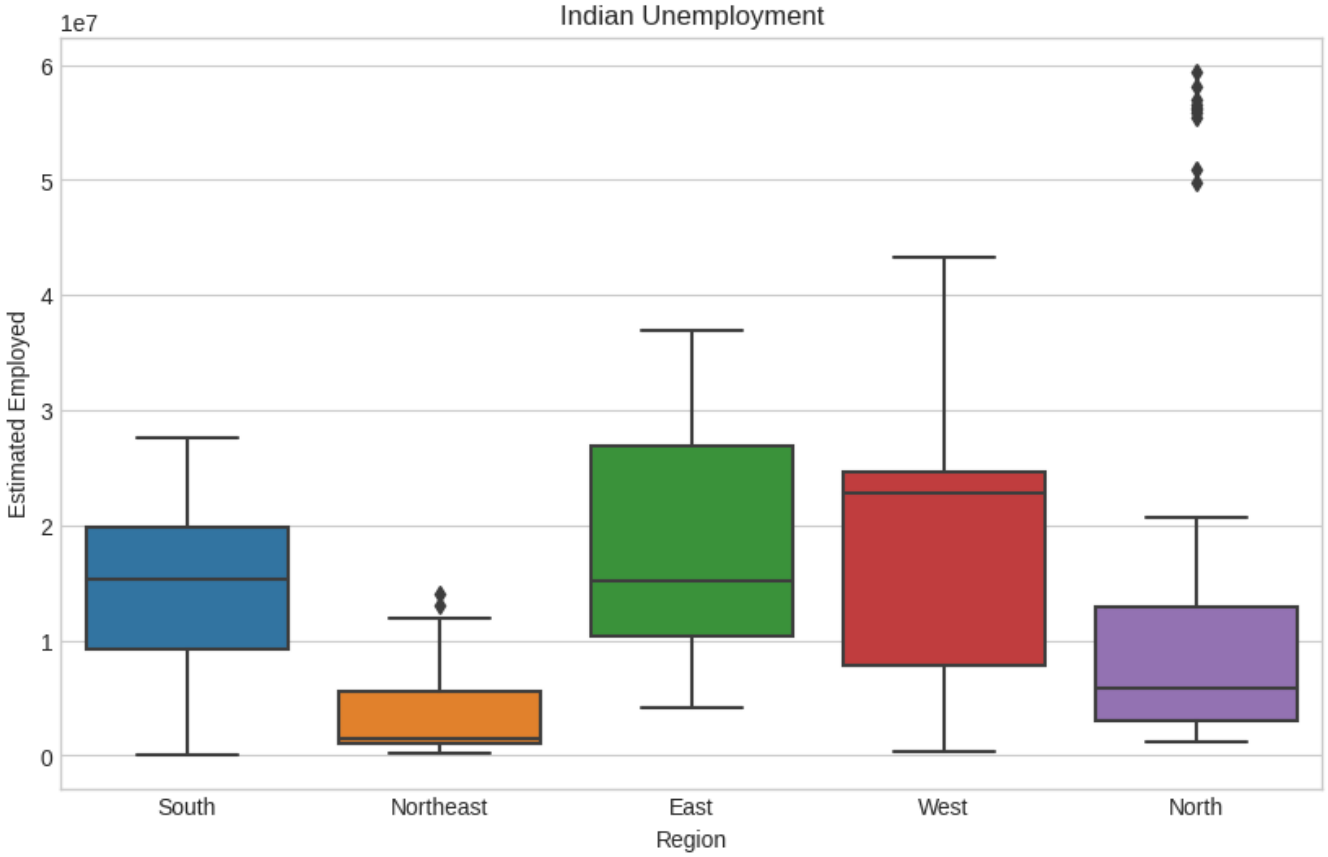
```
<ipython-input-20-7e3a866894f5>:3: FutureWarning:


The `ci` parameter is deprecated. Use `errorbar=None` for the same effect.
```



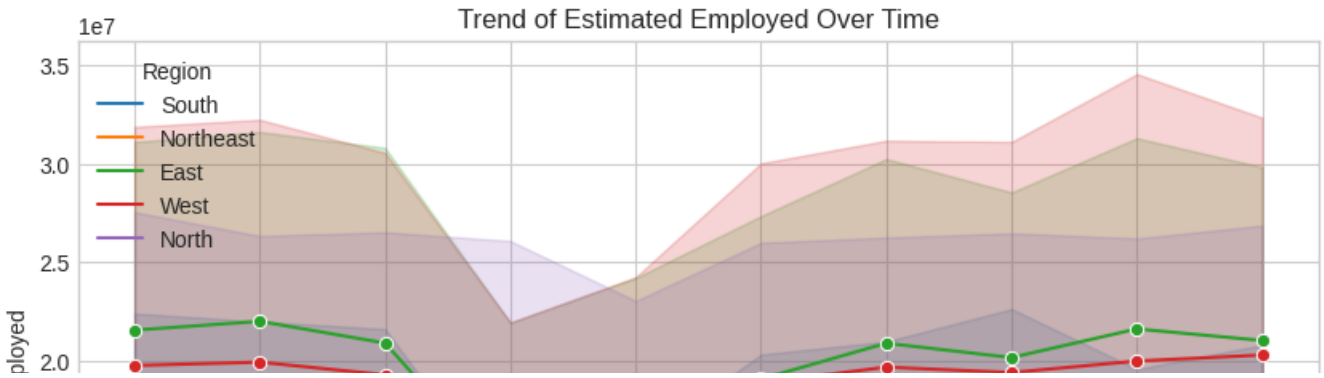
```
plt.figure(figsize=(10, 6))
plt.title("Indian Unemployment")
sns.scatterplot(x="Region", y="Estimated Employed", data=data, hue="Region", s=100)

plt.xlabel("Region")
plt.ylabel("Estimated Employed")
plt.legend(title="Region")
plt.show()
```




```
plt.figure(figsize=(10, 6))
plt.title("Indian Unemployment")
sns.boxplot(x="Region", y="Estimated Employed", data=data)
plt.xlabel("Region")
plt.ylabel("Estimated Employed")
plt.show()
```




```
plt.figure(figsize=(10, 6))
plt.title("Trend of Estimated Employed Over Time")
sns.lineplot(x="Date", y="Estimated Employed", data=data, hue="Region", marker="o")
plt.xlabel("Date")
plt.ylabel("Estimated Employed")
plt.legend(title="Region", loc="upper left")
plt.show()
```




```
plt.figure(figsize=(10, 6))
plt.title("Distribution of Estimated Employed")
sns.histplot(data["Estimated Employed"], bins=20, kde=True)
plt.xlabel("Estimated Employed")
plt.ylabel("Frequency")
plt.show()
```