```
import pandas as pd
df = pd.read_csv('/content/Unemployment in India.csv')
```

```
df.head()
```

	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

```
df.shape
```

```
(768, 7)
```

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 768 entries, 0 to 767
Data columns (total 7 columns):
 #   Column                                    Non-Null Count  Dtype  
---  ------                                    --------------  -----  
 0   Region                                    740 non-null    object 
 1    Date                                     740 non-null    object 
 2    Frequency                                740 non-null    object 
 3    Estimated Unemployment Rate (%)          740 non-null    float64
 4    Estimated Employed                       740 non-null    float64
 5    Estimated Labour Participation Rate (%)  740 non-null    float64
 6   Area                                      740 non-null    object 
dtypes: float64(3), object(4)
memory usage: 42.1+ KB
```

```
df.isnull().sum()
```

	0
Region	28
Date	28
Frequency	28
Estimated Unemployment Rate (%)	28
Estimated Employed	28
Estimated Labour Participation Rate (%)	28
Area	28

dtype: int64

```
df = df.dropna()
```

```
df.isnull().sum()
```

	0
Region	0
Date	0
Frequency	0
Estimated Unemployment Rate (%)	0
Estimated Employed	0
Estimated Labour Participation Rate (%)	0
Area	0

dtype: int64

```
df.shape
```

```
(740, 7)
```

```
df.head()
```

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Area
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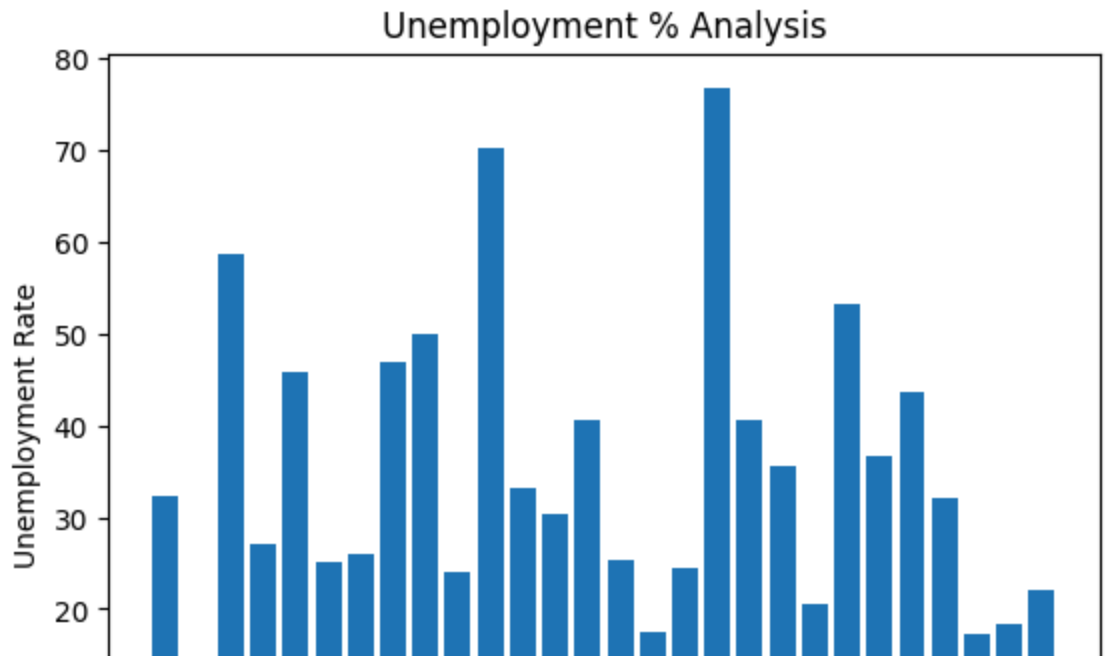
```
import matplotlib.pyplot as plt
plt.figure(figsize = (17,7))
fig, ax = plt.subplots()
plt.bar(df['Region'], df[' Estimated Unemployment Rate (%)'])
ax.set_xticklabels(ax.get_xticklabels(), rotation = 60, ha = 'right')
plt.ylabel('Unemployment Rate')
plt.xlabel('Region')
plt.title('Unemployment % Analysis')
```

```
<ipython-input-57-0fb5c190e36d>:5: UserWarning: FixedFormatter should only be us
  ax.set_xticklabels(ax.get_xticklabels(), rotation = 60, ha = 'right')
Text(0.5, 1.0, 'Unemployment % Analysis')
<Figure size 1700x700 with 0 Axes>
```



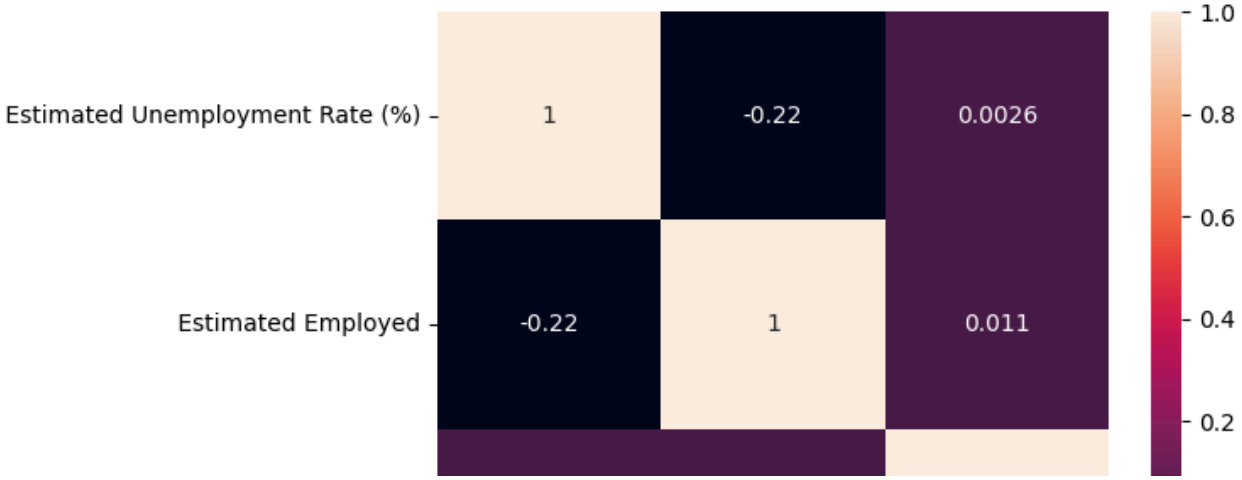
```
df_1 = df.iloc[:, 3:6]
```

```
df_1.head()
```

	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)
0	3.65	11999139.0	43.24
1	3.05	11755881.0	42.05
2	3.75	12086707.0	43.50
3	3.32	12285693.0	43.97
4	5.17	12256762.0	44.68

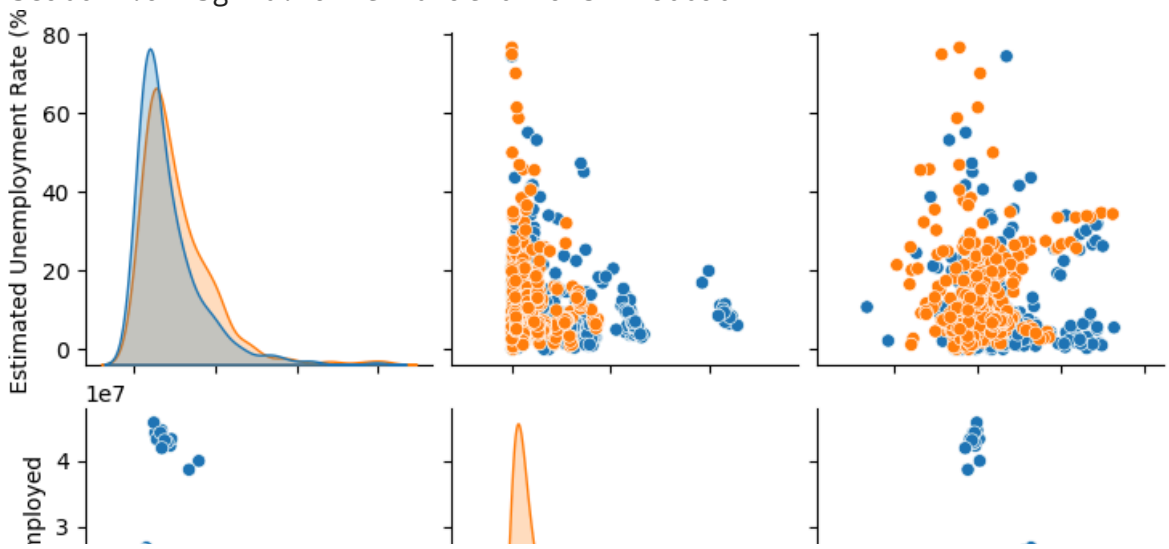
```
import seaborn as sns
sns.heatmap(df_1.corr(),annot = True)
```

```
<Axes: >
```



```
sns.pairplot(df, hue='Area')
```

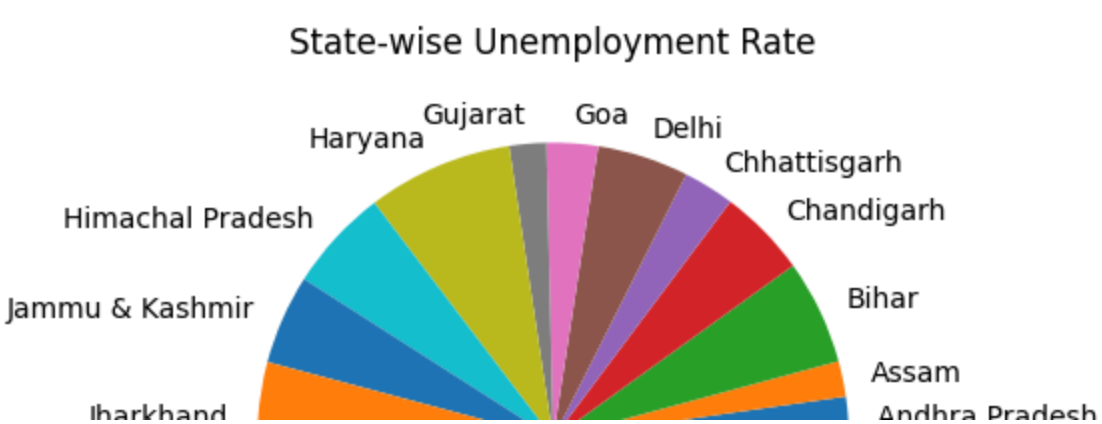
```
<seaborn.axisgrid.PairGrid at 0x7a754f7806a0>
```



```
df.rename(columns = {' Estimated Unemployment Rate (%)' : 'Unemployment_rate'}, inplace = T
df_states = df[['Region', 'Unemployment_rate']]
df_states_1 = df_states.groupby(['Region']).mean().reset_index()
```

	Region	Unemployment_rate
0	Andhra Pradesh	7.477143
1	Assam	6.428077
2	Bihar	18.918214
3	Chandigarh	15.991667
4	Chhattisgarh	9.240357
5	Delhi	16.495357
6	Goa	9.274167
7	Gujarat	6.663929
8	Haryana	26.283214
9	Himachal Pradesh	18.540357
10	Jammu & Kashmir	16.188571
11	Jharkhand	20.585000
12	Karnataka	6.676071
13	Kerala	10.123929
14	Madhya Pradesh	7.406429
15	Maharashtra	7.557500
16	Meghalaya	4.798889
17	Odisha	5.657857
18	Puducherry	10.215000
19	Punjab	12.031071
20	Rajasthan	14.058214
21	Sikkim	7.249412
22	Tamil Nadu	9.284286
23	Telangana	7.737857
24	Tripura	28.350357
25	Uttar Pradesh	12.551429
26	Uttarakhand	6.582963
27	West Bengal	8.124643

```
plt.pie(df_states_1['Unemployment_rate'], labels = df_states_1['Region'])
plt.title('State-wise Unemployment Rate')
plt.show()
```


State-wise Unemployment Rate
Gujarat
Goa
Haryana
Delhi
Chhattisgarh
Himachal Pradesh
Chandigarh
Jammu & Kashmir
Bihar
Assam
Jharkhand
Andhra Pradesh