In [1]: **import** numpy **as** np import pandas as pd Readin CSV filr df=pd.read\_csv("india.csv") df.head() In [3]: Out[3]: 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 3.75 12086707.0 43.50 Rural Monthly **3** Andhra Pradesh 31-08-2019 12285693.0 Monthly 3.32 43.97 Rural 4 Andhra Pradesh 30-09-2019 12256762.0 5.17 44.68 Rural Monthly In [4]: df.tail() Out[4]: Region Date Frequency Estimated Unemployment Rate (%) Estimated Employed Estimated Labour Participation Rate (%) Area 763 NaN NaN NaN NaN NaN NaN NaN NaN NaN 764 NaN NaN NaN NaN NaN 765 NaN 766 NaN NaN NaN NaN NaN NaN NaN NaN 767 NaN NaN NaN In [5]: df.shape (768, 7)Out[5]: In [6]: 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 740 non-null 1 Date object 2 Frequency 740 non-null object 3 Estimated Unemployment Rate (%) float64 740 non-null Estimated Employed float64 4 740 non-null 740 non-null 5 Estimated Labour Participation Rate (%) float64 6 Area 740 non-null object dtypes: float64(3), object(4) memory usage: 42.1+ KB In [7]: df.describe() Out[7]: Estimated Unemployment Rate (%) Estimated Employed Estimated Labour Participation Rate (%) 740.000000 740.000000 count 7.400000e+02 11.787946 7.204460e+06 42.630122 mean 10.721298 8.087988e+06 8.111094 std 0.000000 4.942000e+04 13.330000 min 4.657500 1.190404e+06 38.062500 25% **50**% 8.350000 4.744178e+06 41.160000 **75**% 15.887500 1.127549e+07 45.505000 76.740000 4.577751e+07 72.570000 In [8]: x= df['Region'] In [9]: x Andhra Pradesh Out[9]: Andhra Pradesh 1 2 Andhra Pradesh Andhra Pradesh 3 Andhra Pradesh 4 . . . 763 NaN 764 NaN 765 NaN 766 NaN 767 NaN Name: Region, Length: 768, dtype: object In [10]: y=df[' Estimated Unemployment Rate (%)'] In [11]: y 3.65 Out[11]: 3.05 3.75 2 3 3.32 5.17 . . . 763 NaN 764 NaN 765 NaN 766 NaN 767 NaN Name: Estimated Unemployment Rate (%), Length: 768, dtype: float64 In [12]: df2=df.iloc[:,3] In [13]: df2 3.65 Out[13]: 3.05 2 3.75 3 3.32 4 5.17 . . . 763 NaN 764 NaN 765 NaN 766 NaN 767 NaN Estimated Unemployment Rate (%), Length: 768, dtype: float64 In [14]: import plotly.express as px import matplotlib as plt In [15]: | fg = px.bar(df,x='Region',y=' Estimated Unemployment Rate (%)', color='Region', title='Unemployment Rate(State Wise) by Bar Graph', template='plotly') fg.update\_layout(xaxis={'categoryorder':'total descending'}) fg.show() Unemployment Rate(State Wise) by Bar Graph 800 Region Andhra Pradesh 700 Assam Estimated Unemployment Rate (%) Bihar 600 Chhattisgarh Delhi Goa 500 Gujarat Haryana 400 Himachal Pradesh Jammu & Kashmir 300 Jharkhand Karnataka 200 Kerala Madhya Pradesh 100 Maharashtra Meghalaya Uttar Pradesh Himachal Pradesh Jammu & Kashmir Andhra Pradesh Chhattisgarh West Bengal Maharashtra Madhya Pradesh Chandigarh Haryana Jharkhand Rajasthan Puducherry Tamil Nadu Uttarakhand Bihar Karnataka Kerala Telangana Odisha Tripura Gujarat Assam Region fg= px.bar(df,x='Region',y=' Estimated Unemployment Rate (%)',color='Region',title='Unemployment Rate (State Wise) by Bar Graph',template='plotly') fg.update\_layout(xaxis={'categoryorder':'total descending'}) fg.show() Unemployment Rate (State Wise) by Bar Graph 800 Region Andhra Pradesh Assam 700 Estimated Unemployment Rate (%) Bihar Chhattisgarh 600 Delhi Goa 500 Gujarat Haryana 400 Himachal Pradesh Jammu & Kashmir 300 Jharkhand Karnataka 200 Kerala Madhya Pradesh 100 Maharashtra Meghalaya 0 Himachal Pradesh Andhra Pradesh Ultar Pradesh Jammu & Kashmir Puducherry Chhattisgarh West Bengal Maharashtra Madhya Pradesh Uttarakhand Haryana Jharkhand Chandigarh Bihar Rajasthan Tamil Nadu Telangana Karnataka Meghalaya Kerala GOQ Gujarat Assam Odisha Tripura Region In [17]: fg = px.box(df ,x='Region' ,y=' Estimated Unemployment Rate (%)' ,color='Region' ,title='Unemployment Rate (Statewise) by Box Plot' ,template='plotly') fg.update\_layout(xaxis={'categoryorder':'total descending'}) fg.show() Unemployment Rate (Statewise) by Box Plot 80 Region Andhra Pradesh 70 Assam Estimated Unemployment Rate (%) Bihar 60 Chhattisgarh Delhi 50 Goa Gujarat 40 Haryana Himachal Pradesh 30 Jammu & Kashmir Jharkhand 20 Karnataka Kerala 10 Madhya Pradesh Maharashtra 0 Meghalaya Himachal Pradesh Andhra Pradesh Uttar Pradesh Jammu & Kashmir West Bengal Madhya Pradesh Uttarakhand Jharkhand Chhattisgarh Maharashtra Puducherry Karnataka Meghalaya Haryana Bihar Rajasthan Kerala Tamij Nadu Telangana Chandigarh Gujarat Odisha Assam Region In [19]: | fg = px.scatter(df,x='Region',y=' Estimated Unemployment Rate (%)', color='Region', title='Unemployment Rate (Statewise) by Scatter Plot', template='plotly') fg.update\_layout(xaxis={'categoryorder':'total descending'}) fg.show() Unemployment Rate (Statewise) by Scatter Plot 80 Region Andhra Pradesh 70 Assam Estimated Unemployment Rate (%) Bihar 60 Chhattisgarh Delhi 50 Goa Gujarat 40 Haryana Himachal Pradesh 30 Jammu & Kashmir Jharkhand 20 Karnataka Kerala 10 Madhya Pradesh Maharashtra 0 Meghalaya Himachal Pradesh Jammu & Kashmir Madhya Pradesh Jharkhand Ultar Pradesh Puducherry Chhattisgarh West Bengal Maharashtra Andhra Pradesh Haryana Tamil Nadu Chandigarh Karnataka Uttarakhand Bihar Rajasthan Telangana Assam Odisha Kerala Gujarat Region In [20]: fg = px.histogram(df,x='Region',y='Estimated Unemployment Rate (%)',color='Region',title='Unemployment Rate (Statewise) by Histogram',template='plotly') fg.update\_layout(xaxis={'categoryorder':'total descending'}) fg.show() Unemployment Rate (Statewise) by Histogram 800 Region (%) Andhra Pradesh Assam sum of Estimated Unemployment Rate Bihar Chhattisgarh 600 Delhi Goa 500 Gujarat Haryana 400 Himachal Pradesh Jammu & Kashmir 300 Jharkhand Karnataka 200 Kerala Madhya Pradesh 100 Maharashtra Meghalaya Himachal Pradesh 0 Jammu & Kashmir Andhra Pradesh Jharkhand Ultar Pradesh Puducherry Chhattisgarh West Bengal Maharashtra Madhya Pradesh Haryana Bihar Rajasthan Kerala Tamil Nadu Telangana Chandigarh karnataka Uttarakhand Odisha  $G_{O_Q}$ Gujarat Tripura Assam Region