**Python Seaborn Module Cookbook:**

Seaborn is a Python Module build on top of Matplotlib and primarily used for data visualization. Below are the functions known to me and used by me:

Statement to import Seaborn : **import seaborn**

To show Plot, **import matplotlib.pyplot**

Dataframe objects are created using Pandas Library from a CSV File

* **seaborn.distplot(data\_frame[‘col\_name’])** ==> Applicable for Continuous value and it plots Histogram and shows density curve for the data in the mentioned column
* **seaborn.distplot(data\_frame[‘col\_name’],kde=False,rug=True)** ==> To avoid showing density curve, use kde=False. rug=True indicates the number of records in terms of thickness of line. Applicable for Continuous value.
* **seaborn.jointplot(data\_frame[‘col1\_name’],data\_frame[‘col2\_name’])** ==> Plots histogram for each column and Scatter Plot for data of both columns. Applicable for Continuous value
* **seaborn.jointplot(data\_frame[‘col1\_name’],data\_frame[‘col2\_name’],kind=’hex’)** ==> Plots histogram for each column and Scatter Plot for data of both columns. Applicable for Continuous value. Scatter Plot points are shown as hexagons
* **seaborn.jointplot(data\_frame[‘col1\_name’],data\_frame[‘col2\_name’],kind=’reg’)** ==> Plots histogram for each column. Applicable for Continuous value. Regression line is shown for both columns
* **seaborn.jointplot(data\_frame[‘col1\_name’],data\_frame[‘col2\_name’],kind=’kde’)** ==> Plots Kernel Density lines for each column. Scatter Plot is shown in terms of Density
* **seaborn.pairplot(data\_frame[[col1\_name,col2\_name,col3\_name]])** ==> Applicable for Continuous values. Typically it is a Matrix of Plots. Principal Diagonal will be histograms of columns. Rest will be Scatter Plot of respective columns as per the indices
* **seaborn.stripplot(data\_frame[‘categorial\_col’],data\_frame[‘continuous\_col’])** ==> Plots the points as per corresponding data.
* **seaborn.swarmplot(data\_frame[‘categorial\_col’],data\_frame[‘continuous\_col’])** ==>Similar to StripPlot. There will be no overlap of points.
* **seaborn.boxplot(data\_frame[‘categorial\_col’],data\_frame[‘continuous\_col’],hue=data\_frame[‘categorical\_col2\_name’])** ==>Plots Box Plots for Categorical column values indicating Minimum, Maximum and Quartile Values. Hue is used for Additional Classification in Box Plots
* **seaborn.barplot(data\_frame[‘categorial\_col’],data\_frame[‘continuous\_col’],hue=data\_frame[‘categorical\_col2\_name’])** ==>Plots Histogram for Categorical Values count. Lines of Histogram indicates Confidence levels
* **seaborn.countplot(data\_frame[‘categorical\_col’],hue=data\_frame[‘another\_categorical\_col’])** ==> Plots Frequency of Categorical Values. Hue is used for Additional classifications in histograms
* **seaborn.pointplot(data\_frame[‘categorical\_col’],data\_frame[‘continous\_col’],hue=[‘additional\_categorical\_col’])** ==> Shows only maximum value of histogram as a pint. All the points are joined as a line. Hue is for Additional Classification
* **seaborn.catplot(x=’categorical\_col\_name’,y=’continuous\_col\_name’,hue=’additional\_categorical\_col’,col=’Another\_Categorical\_col’,data=data\_frame,kind=’swarm/point/bar/violin/box/strip’)** ==> Previously it is used as Factory Plot. Number of Plots depend on the types of Categories present in values of **col** key
* **seaborn.lmplot(x=’continuous\_col1\_name’,y=’continuous\_col2\_name’,hue=’categorical\_col’,data=data\_frame)** ==> Plots Regression Line between 2 columns. Hue is used for multiple regression line based on categories in given column in **hue** key