* Data Visualization with Seaborn (DAY-5)

* ! pip install seaborn

It is a python visualization library based on matplotlib that provide high-level interface for drawing attractive and informative statistical graphics.

* import seaborn as sns

```
tips = sns.load_dataset('tips')
tips
```

* import matplotlib.pyplot as plt

```
sns.scatterplot(x='total_bill', y='tip', data=tips)
plt.title("Scatter plot of Total Bill vs tip")
plt.show()
```

* Create a line plot

```
sns.lineplot(x='size', y='total_bill', data=tips)
plt.title("Line plot of Total bill by Size")
plt.show()
```

* Categorical plot & bar plot

```
sns.barplot(x='day', y='total_bill', data=tips)
plt.title("Bar plot of Total Bill by day")
plt.show()
```

* Box plot :

sns.boxplot (x = "day" , y = "total_bill" , data = tips)

* Violin plot

sns.violinplot (x = 'day' , y = 'total_bill' , data = tips)

* Histogram

~~sns.histogram~~

sns.histplot (tips['total_bill'] , bin = 10, kde = True)

* KDE plot

sns.kdeplot (tips['total_bill'] , fill = True)

* sns.pairplot (tips) (pair plot).

* Heat map (correlation)

Corr = tips [['total_bill', 'tip', 'size']]. corr()

Corr

sns.heatmap (corr , annot = True , cmap = 'coolwarm')

* import pandas as pd

```
Sales_df = pd.read_csv('filename.csv')

Sales_df.head()

plt.figure(figsize=(10,6))

sns.barplot(x='product Category', y="Total Revenue", data=Sales_df,
                                                    estimator=sum)

plt.title('Total Sales by Product')

plt.xlabel('product')

plt.ylabel('Total Sale')

plt.show()
```

If we want Total Sales by Region just replace product with Region.