**Assignment 01: Draw a pair plot using seaborn library**

**DESCRIPTION**

**Problem:**

Analyze the “auto mpg data” and draw a pair plot using seaborn library for mpg, weight, and origin.

**Sources:**

(a) Origin: This dataset was taken from the StatLib library maintained at Carnegie Mellon University.

* Number of Instances: 398
* Number of Attributes: 9 including the class attribute
* Attribute Information:

1. mpg: continuous
2. cylinders: multi-valued discrete
3. displacement: continuous
4. horsepower: continuous
5. weight: continuous
6. acceleration: continuous
7. model year: multi-valued discrete
8. origin: multi-valued discrete
9. car name: string (unique for each instance)

**Assessment:**

(Note: For code, refer the attached notebook in pdf format)

**1. Analyzing the dataset:**

* Import Pandas, pyplot from matlab and seaborn libraries.
* Insert the line of code ‘%matplotlib inline’ to view the plot in notebook.
* Read the auto\_data.csv into ‘df\_auto\_dataset’ using read\_csv () function.
* View the top 5 records using head () method.
* From the head output, we could see that Origin column has numerical values.
* Hence, write a user defined function for Origin column, to update 1-USA, 2-Europe,

3-Asia as representation.

* Use apply () method, to overwrite the Origin column.
* Use head () method to verify the changes.

**2. Plotting the pair plot**

* Draw the pair plot using seaborn library for mpg, weight, origin with hue origin, set the size to 4.

Note: hue is variable in dataset to map plot aspects to different colors.