In [1]:

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:

```
#view the plot
%matplotlib inline
```

In [4]:

```
#import the dataset
df=pd.read_csv("auto_data.csv")
df
```

Out[4]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	name
0	18.0	8	307.0	130	3504	12.0	70	1	chevrolet chevelle malibu
1	15.0	8	350.0	165	3693	11.5	70	1	buick skylark 320
2	18.0	8	318.0	150	3436	11.0	70	1	plymouth satellite
3	16.0	8	304.0	150	3433	12.0	70	1	amc rebel sst
4	17.0	8	302.0	140	3449	10.5	70	1	ford torino
...	...	...	...	...	...	...	...	...	...
393	27.0	4	140.0	86	2790	15.6	82	1	ford mustang gl
394	44.0	4	97.0	52	2130	24.6	82	2	vw pickup
395	32.0	4	135.0	84	2295	11.6	82	1	dodge rampage
396	28.0	4	120.0	79	2625	18.6	82	1	ford ranger
397	31.0	4	119.0	82	2720	19.4	82	1	chevy s-10

398 rows × 9 columns

In [5]:

```
#view the top 5 rows of the dataset
df.head()
```

Out[5]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	name
0	18.0	8	307.0	130	3504	12.0	70	1	chevrolet chevelle malibu
1	15.0	8	350.0	165	3693	11.5	70	1	buick skylark 320
2	18.0	8	318.0	150	3436	11.0	70	1	plymouth satellite
3	16.0	8	304.0	150	3433	12.0	70	1	amc rebel sst
4	17.0	8	302.0	140	3449	10.5	70	1	ford torino

In [6]:

```
#user defined function for origin
#USA =1,Asia=3,Europe=2
def origin(num):
    if num==1:
        return "USA"
    elif num==2:
        return "Europe"
```

```
    else:
        return "Asia"
df["origin"]=df["origin"].apply(origin)
```

In [7]:

```
#view the top 30 rows of dataset
df.head(30)
```

Out[7]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	name
0	18.0	8	307.0	130	3504	12.0	70	USA	chevrolet chevelle malibu
1	15.0	8	350.0	165	3693	11.5	70	USA	buick skylark 320
2	18.0	8	318.0	150	3436	11.0	70	USA	plymouth satellite
3	16.0	8	304.0	150	3433	12.0	70	USA	amc rebel sst
4	17.0	8	302.0	140	3449	10.5	70	USA	ford torino
5	15.0	8	429.0	198	4341	10.0	70	USA	ford galaxie 500
6	14.0	8	454.0	220	4354	9.0	70	USA	chevrolet impala
7	14.0	8	440.0	215	4312	8.5	70	USA	plymouth fury iii
8	14.0	8	455.0	225	4425	10.0	70	USA	pontiac catalina
9	15.0	8	390.0	190	3850	8.5	70	USA	amc ambassador dpl
10	15.0	8	383.0	170	3563	10.0	70	USA	dodge challenger se
11	14.0	8	340.0	160	3609	8.0	70	USA	plymouth 'cuda 340
12	15.0	8	400.0	150	3761	9.5	70	USA	chevrolet monte carlo
13	14.0	8	455.0	225	3086	10.0	70	USA	buick estate wagon (sw)
14	24.0	4	113.0	95	2372	15.0	70	Asia	toyota corona mark ii
15	22.0	6	198.0	95	2833	15.5	70	USA	plymouth duster
16	18.0	6	199.0	97	2774	15.5	70	USA	amc hornet
17	21.0	6	200.0	85	2587	16.0	70	USA	ford maverick
18	27.0	4	97.0	88	2130	14.5	70	Asia	datsun pl510
19	26.0	4	97.0	46	1835	20.5	70	Europe	volkswagen 1131 deluxe sedan
20	25.0	4	110.0	87	2672	17.5	70	Europe	peugeot 504
21	24.0	4	107.0	90	2430	14.5	70	Europe	audi 100 ls
22	25.0	4	104.0	95	2375	17.5	70	Europe	saab 99e
23	26.0	4	121.0	113	2234	12.5	70	Europe	bmw 2002
24	21.0	6	199.0	90	2648	15.0	70	USA	amc gremlin
25	10.0	8	360.0	215	4615	14.0	70	USA	ford f250
26	10.0	8	307.0	200	4376	15.0	70	USA	chevy c20
27	11.0	8	318.0	210	4382	13.5	70	USA	dodge d200
28	9.0	8	304.0	193	4732	18.5	70	USA	hi 1200d
29	27.0	4	97.0	88	2130	14.5	71	Asia	datsun pl510

In [8]:

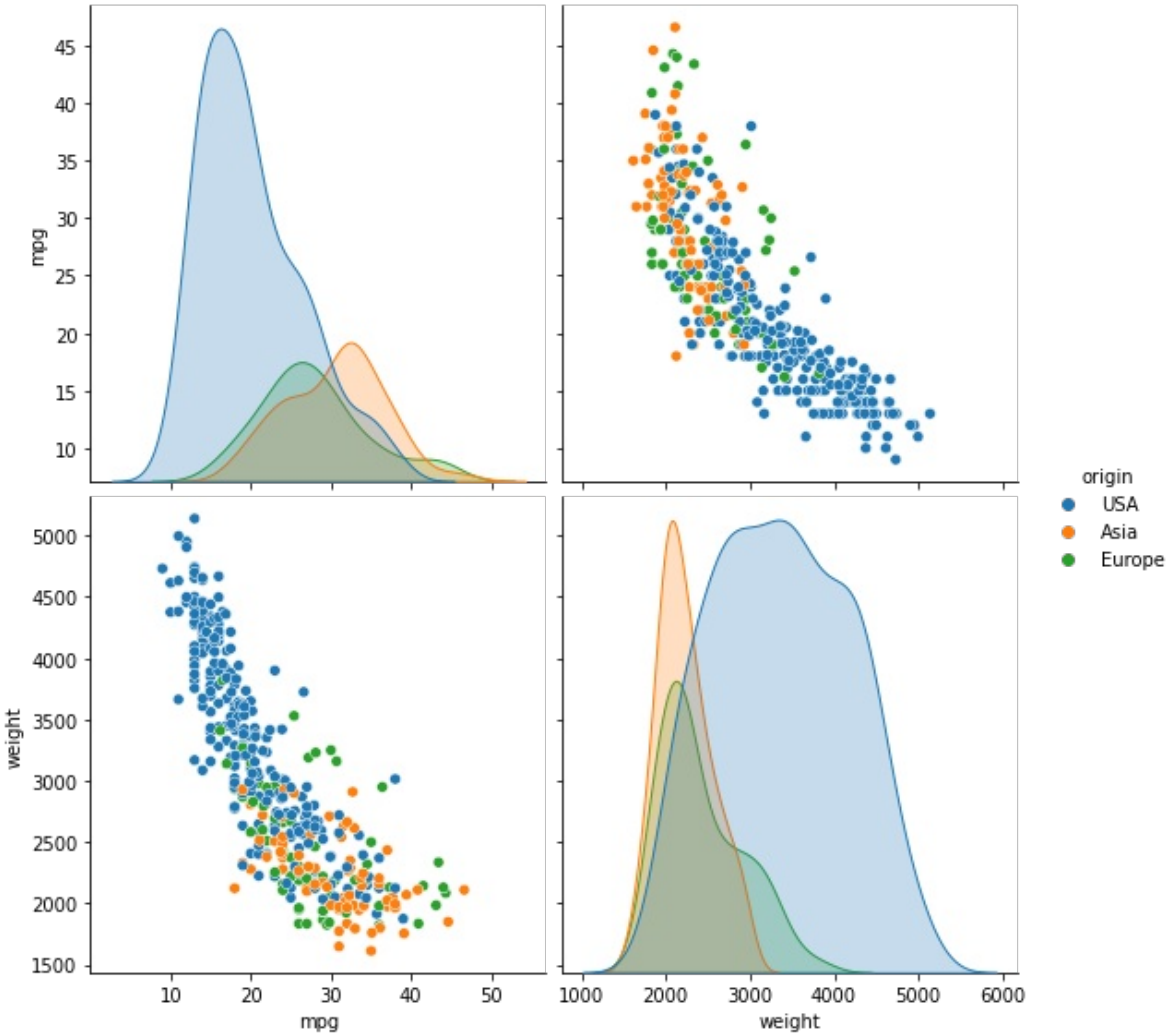
```
#draw pairplot using seaborn with size=4 and hue=origin
sns.pairplot(df[["mpg","weight","origin"]],hue="origin",size=4)
```

```
c:\users\dell\appdata\local\programs\python\python39\lib\site-packages\seaborn\axisgrid.py:1969: UserWarning: The `size` parameter has been renamed to `height`; please update your code.
  warnings.warn(msg, UserWarning)
```

Out[8]:

Out[8]:

```
<seaborn.axisgrid.PairGrid at 0x26485eff3a0>
```



In [9]:

```
print("Successfully completed a project on pairplot using seaborn library")
```

```
Successfully completed a project on pairplot using seaborn library
```

In [10]:

```
print("Thank you simplilearn")
```

```
Thank you simplilearn
```

In [ ]:

```

```