Experiment 6 : Data Wrangling

```python
# importing dependencies
import pandas as pd
import seaborn as sns
import numpy as np
```

```python
df1= pd.DataFrame({'C1':[11,21,np.nan], 'C2':[15, np.nan, np.nan], 'C3':[10,20,30]})
df1
```

	C1	C2	C3
0	11.0	15.0	10
1	21.0	NaN	20
2	NaN	NaN	30

Checking number of null values

```python
df1.isna()
```

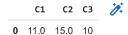|	C1	C2	C3
0	False	False	False
1	False	True	False
2	True	True	False

```python
df1.isna().sum()   # prints the sum of null values in each column
```

```
C1    1
C2    2
C3    0
dtype: int64
```

Dropping the null values

```python
df1.dropna()
```

	C1	C2	C3
0	11.0	15.0	10

Impute missing values --> filling the null values with suitable values

```python
df1.fillna(df1.mean()) # filling the null values with mean of each column
```

	C1	C2	C3
0	11.0	15.0	10
1	21.0	15.0	20
2	16.0	15.0	30

```python
df = pd.read_csv('/content/Cars93.csv')
df.head()
```

	Manufacturer	Model	Type	Min.Price	Price	Max.Price	MPG.city	MPG.highway	AirBags	DriveT
0	Acura	Integra	Small	12.9	15.9	18.8	25	31	NaN	F
1	Acura	Legend	Midsize	29.2	33.9	38.7	18	25	Driver & Passenger	F

```
df.shape
```

(93, 27)

| 3 | Audi | 100 | Midsize | 30.8 | 37.7 | 44.6 | 19 | 26 | Driver & | F |

```
df.isna().sum()
```

```
Manufacturer          0
Model                 0
Type                  0
Min.Price             0
Price                 0
Max.Price             0
MPG.city              0
MPG.highway           0
AirBags              34
DriveTrain            0
Cylinders             0
EngineSize            0
Horsepower            0
RPM                   0
Rev.per.mile          0
Man.trans.avail       0
Fuel.tank.capacity    0
Passengers            0
Length                0
Wheelbase             0
Width                 0
Turn.circle           0
Rear.seat.room        2
Luggage.room         11
Weight                0
Origin                0
Make                  0
dtype: int64
```

```
df['Rear.seat.room'] = df['Rear.seat.room'].fillna(value= df['Rear.seat.room'].median())
df.isna().sum()
```

```
Manufacturer          0
Model                 0
Type                  0
Min.Price             0
Price                 0
Max.Price             0
MPG.city              0
MPG.highway           0
AirBags              34
DriveTrain            0
Cylinders             0
EngineSize            0
Horsepower            0
RPM                   0
Rev.per.mile          0
Man.trans.avail       0
Fuel.tank.capacity    0
Passengers            0
Length                0
Wheelbase             0
Width                 0
Turn.circle           0
Rear.seat.room        0
Luggage.room         11
Weight                0
Origin                0
Make                  0
dtype: int64
```