In [1]:
```
import seaborn as sns
tips = sns.load_dataset('tips')
tips
```

Out[1]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4
...	...	...	...	...	...	...	...
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

244 rows × 7 columns

In [6]:
```
from sklearn.linear_model import LinearRegression
```

In [7]:
```
lm = LinearRegression()
```

In [10]:
```
tips.dtypes
```

Out[10]:
```
total_bill     float64
tip            float64
sex           category
smoker        category
day           category
time          category
size             int64
dtype: object
```

In [35]:
```
import pandas as pd
data=pd.DataFrame({'City':[
'Delhi','Mumbai','Hydrabad'],'Review':["Good","bad","good"
]})
```

In [39]:
```
le = LabelEncoder()
```

In [41]:
```
data['Review'] = le.fit_transform(data['Review'])
```

In [42]:
```
data
```

Out[42]:

	City	Review
0	Delhi	0
1	Mumbai	1
2	Hydrabad	2

In [43]:
```
pd.get_dummies(data)
```

Out[43]:

	Review	City_Delhi	City_Hydrabad	City_Mumbai
0	0	1	0	0
1	1	0	0	1
2	2	0	1	0

In [18]:
```
1 pd.get_dummies(data,drop_first=True)
```

Out[18]:

	City_Chennai	City_Delhi	City_Hydrabad	City_Mumbai
0	0	1	0	0
1	0	0	0	1
2	0	0	1	0
3	1	0	0	0
4	0	0	0	0
5	0	1	0	0
6	0	0	1	0
7	0	0	0	0
8	0	1	0	0

In [19]:
```
1 data=pd.DataFrame({'gender':["M","F","M","F","M"
2 ]})
```

In [21]:
```
1 pd.get_dummies(data,drop_first=True)
```

Out[21]:

	gender_M
0	1
1	0
2	1
3	0
4	1

In [24]:
```
1 data=pd.DataFrame({'Review':["Good","Better","Best","Good","Better","Best"]})
```

In [25]:
```
1 data
```

Out[25]:

	Review
0	Good
1	Better
2	Best
3	Good
4	Better
5	Best

In [26]:
```
1 from sklearn.preprocessing import LabelEncoder
```

In [27]:
```
1 le = LabelEncoder()
```

In [30]:
```
1 le.fit_transform(data['Review'])
```

Out[30]:
```
array([2, 1, 0, 2, 1, 0])
```

In [31]:
```
1 pd.DataFrame(le.fit_transform(data['Review']),columns=['Review'])
```

Out[31]:

	Review
0	2
1	1
2	0
3	2
4	1
5	0

Categorical Variables :

Nominal Variables -> One-Hot Encoding (get_dummies)

Ordinal Variables -> Label Encoding

In [ ]:
```
1
```