In [1]:
```python
import pandas as pd
```

In [2]:
```python
df=pd.read_csv('car.csv')
```

In [3]:
```python
df
```

Out[3]:

	Car Model	Mileage	Sell Price($)	Age(yrs)
0	BMW X5	69000	18000	6
1	BMW X5	35000	34000	3
2	BMW X5	57000	26100	5
3	BMW X5	22500	40000	2
4	BMW X5	46000	31500	4
5	Audi A5	59000	29400	5
6	Audi A5	52000	32000	5
7	Audi A5	72000	19300	6
8	Audi A5	91000	12000	8
9	Mercedez Benz C class	67000	22000	6
10	Mercedez Benz C class	83000	20000	7
11	Mercedez Benz C class	79000	21000	7
12	Mercedez Benz C class	59000	33000	5

In [4]:
```python
dummies=pd.get_dummies(df['Car Model'])
```

In [5]: `dummies`

Out[5]:

	Audi A5	BMW X5	Mercedez Benz C class
0	0	1	0
1	0	1	0
2	0	1	0
3	0	1	0
4	0	1	0
5	1	0	0
6	1	0	0
7	1	0	0
8	1	0	0
9	0	0	1
10	0	0	1
11	0	0	1
12	0	0	1

In [6]: `df_dummies=pd.concat([df,dummies],axis=1)`

In [7]: df_dummies

Out[7]:

	Car Model	Mileage	Sell Price($)	Age(yrs)	Audi A5	BMW X5	Mercedez Benz C class
0	BMW X5	69000	18000	6	0	1	0
1	BMW X5	35000	34000	3	0	1	0
2	BMW X5	57000	26100	5	0	1	0
3	BMW X5	22500	40000	2	0	1	0
4	BMW X5	46000	31500	4	0	1	0
5	Audi A5	59000	29400	5	1	0	0
6	Audi A5	52000	32000	5	1	0	0
7	Audi A5	72000	19300	6	1	0	0
8	Audi A5	91000	12000	8	1	0	0
9	Mercedez Benz C class	67000	22000	6	0	0	1
10	Mercedez Benz C class	83000	20000	7	0	0	1
11	Mercedez Benz C class	79000	21000	7	0	0	1
12	Mercedez Benz C class	59000	33000	5	0	0	1

In [8]:
```python
df_dummies.drop(['Car Model','Mercedez Benz C class'],axis=1,inplace=True)
```

In [9]:
```python
x=df_dummies.drop('Sell Price($)',axis=1)
```

In [10]: x

Out[10]:

	Mileage	Age(yrs)	Audi A5	BMW X5
0	69000	6	0	1
1	35000	3	0	1
2	57000	5	0	1
3	22500	2	0	1
4	46000	4	0	1
5	59000	5	1	0
6	52000	5	1	0
7	72000	6	1	0
8	91000	8	1	0
9	67000	6	0	0
10	83000	7	0	0
11	79000	7	0	0
12	59000	5	0	0

In [11]: y=df_dummies['Sell Price($)']

In [12]: y

Out[12]: 0   18000
         1   34000
         2   26100
         3   40000
         4   31500
         5   29400
         6   32000
         7   19300
         8   12000
         9   22000
         10   20000
         11   21000
         12   33000
         Name: Sell Price($), dtype: int64

In [13]: `from sklearn.linear_model import LinearRegression`

In [14]: `model=LinearRegression()`

In [15]: `model.fit(x,y)`

Out[15]: LinearRegression()

Benz 4yr 45000k.m.

In [16]: `model.predict([[45000,4,0,0]])`

Out[16]: array([36991.31721061])

Bmw 7yr 86000k.m.

In [17]: `model.predict([[86000,7,0,1]])`

Out[17]: `array([11080.74313219])`

Model score

In [18]: `model.score(x,y)`

Out[18]: `0.9417050937281082`

In [ ]: