

|              |                             |
|--------------|-----------------------------|
| Date         | 31 October 2022             |
| Team ID      | PNT2022TMID12047            |
| Project Name | Car Resale value Prediction |

### Splitting Data into Independent and Dependent Variables

```
X = car_dataset.drop(['Car_Name', 'Selling_Price'],axis= 1)
```

```
Y = car_dataset['Selling_Price']
```

```
print(X)
```

**output :**

```

      Year  Present_Price  Kms_Driven  Fuel_Type  Seller_Type  Transmission  \
0    2014             5.59       27000         0           0             0
1    2013             9.54       43000         1           0             0
2    2017             9.85        6900         0           0             0
3    2011             4.15        5200         0           0             0
4    2014             6.87       42450         1           0             0  ..
...          ...          ...          ...          ...          ...
296  2016            11.60      33988         1           0             0
297  2015             5.90      60000         0           0             0
298  2009            11.00      87934         0           0             0
299  2017            12.50       9000         1           0             0
300  2016             5.90       5464         0           0             0
      Owner
0         0
1         0
2         0
3         0
4         0  ..    ...
296        0
297        0
298        0
299        0
300        0

```

[301 rows x 7 columns]

```
print(Y)
```

**output**

:

```

0      3.35
1      4.75
2      7.25
3      2.85
4      4.60  ...
296     9.50
297     4.00

```

```

298      3.35
299     11.50
300      5.30
Name: Selling_Price, Length: 301, dtype: float64

```

Spilting the Training data and Test Data

```

X_train,X_test,Y_train,Y_test = train_test_split(X,Y,test_size = 0.1,random_state = 2
)

```

```

print(X_train)
output

```

```

:
      Year  Present_Price  Kms_Driven  Fuel_Type  Seller_Type  Transmission  \
204  2015           4.430       28282         0         0             0
249  2016           7.600       17000         0         0             0
277  2015          13.600       21780         0         0             0
194  2008           0.787       50000         0         1             0
244  2013           9.400       49000         1         0             0  ..
...      ...           ...         ...         ...         ...           ...
75   2015           6.800       36000         0         0             0
22   2011           8.010       50000         0         0             1
72   2013          18.610       56001         0         0             0
15   2016          10.790       43000         1         0             0  168
2013          0.730       12000         0         1             0
      Owner
204      0
249      0
277      0
194      0
244      0  ..
...
75      0
22      0
72      0
15      0
168     0

```

```

[270 rows x 7 columns]
print(X_test)

```

Output :

```

      Year  Present_Price  Kms_Driven  Fuel_Type  Seller_Type  Transmission  \
99  2010          20.450       50024         1         0             0
161 2014           0.826       23000         0         1             0
89  2014           6.760       40000         0         0             0
30  2012           5.980       51439         1         0             0
232 2015          14.790       12900         0         0             1
290 2014           6.400       19000         0         0             0
35  2011           7.740       49998         2         0             0
7   2015           8.610       33429         1         0             0
183 2013           0.470       21000         0         1             0
13  2015           7.710       26000         0         0             0

```

|      |      |        |       |   |   |   |
|------|------|--------|-------|---|---|---|
| 269  | 2015 | 10.000 | 18828 | 0 | 0 | 0 |
| 65   | 2014 | 6.950  | 45000 | 1 | 0 | 0 |
| 178  | 2014 | 0.520  | 19000 | 0 | 1 | 1 |
| 258  | 2015 | 13.600 | 25000 | 0 | 0 | 0 |
| 227  | 2011 | 4.430  | 57000 | 0 | 0 | 0 |
| 133  | 2016 | 0.950  | 500   | 0 | 1 | 0 |
| 130  | 2017 | 0.870  | 11000 | 0 | 1 | 0 |
| 156  | 2017 | 0.520  | 15000 | 0 | 1 | 0 |
| 237  | 2015 | 13.600 | 68000 | 1 | 0 | 0 |
| 262  | 2015 | 5.800  | 40023 | 0 | 0 | 0 |
| 112  | 2014 | 2.400  | 7000  | 0 | 1 | 0 |
| 282  | 2014 | 14.000 | 63000 | 1 | 0 | 0 |
| 164  | 2016 | 0.540  | 14000 | 0 | 1 | 0 |
| 275  | 2016 | 13.600 | 30753 | 0 | 0 | 1 |
| 154  | 2014 | 0.880  | 8000  | 0 | 1 | 0 |
| 29   | 2015 | 10.380 | 45000 | 1 | 0 | 0 |
| 141  | 2016 | 0.800  | 20000 | 0 | 1 | 0 |
| 192  | 2007 | 0.750  | 49000 | 0 | 1 | 0 |
| 216  | 2016 | 4.430  | 12500 | 0 | 0 | 0 |
| 3    | 2011 | 4.150  | 5200  | 0 | 0 | 0 |
| 2017 |      | 0.510  | 4000  | 0 | 1 | 1 |

159

Owner

|     |   |
|-----|---|
| 99  | 0 |
| 161 | 0 |
| 89  | 0 |
| 30  | 0 |
| 232 | 0 |
| 290 | 0 |
| 35  | 0 |
| 7   | 0 |
| 183 | 0 |
| 13  | 0 |
| 269 | 0 |
| 65  | 0 |
| 178 | 0 |
| 258 | 0 |
| 227 | 0 |
| 133 | 0 |
| 130 | 0 |
| 156 | 0 |
| 237 | 0 |
| 262 | 0 |
| 112 | 0 |
| 282 | 0 |
| 164 | 0 |
| 275 | 0 |
| 154 | 0 |
| 29  | 0 |
| 141 | 0 |
| 192 | 1 |
| 216 | 0 |
| 3   | 0 |
| 159 | 0 |

```
print(Y_train)
```

output :

|     |      |
|-----|------|
| 204 | 2.75 |
| 249 | 5.25 |

```
277    9.70
194    0.20
244    5.95
...
75     3.95
22     4.40
72     7.45
15     7.75
168    0.42
Name: Selling_Price, Length: 270, dtype: float64
```

```
print(Y_test)
output :
```

```
99      9.65
161     0.45
89      4.75
30      3.10
232    11.45
290     4.50
35      2.95
7       6.50
183     0.27
13      6.10
269     6.70
65      4.75
178     0.35
258     8.40
227     2.55
133     0.72
130     0.75
156     0.48
237    11.25
262     4.00
112     1.15
282     8.25
164     0.45
275    10.90
154     0.50
29      7.45
141     0.60
192     0.20
216     2.90
3       2.85
159     0.45
Name: Selling_Price, dtype: float64
```