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```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 398 entries, 0 to 397
Data columns (total 9 columns):
#   Column      Non-Null Count  Dtype
---  ---
0    mpg         398 non-null    float64
1   cylinders   398 non-null    int64
2  displacement 398 non-null    float64
3   horsepower  392 non-null    float64
4    weight     398 non-null    int64
5   acceleration 398 non-null    float64
6   model_year  398 non-null    int64
7    origin     398 non-null    object
8    name       398 non-null    object
dtypes: float64(4), int64(3), object(2)
memory usage: 28.1+ KB
```

```
Out[9]: mpg         0
cylinders         0
displacement      0
horsepower        6
weight            0
acceleration      0
model_year        0
origin            0
name              0
dtype: int64
```

Out[10]: 0

Out[4]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	name
0	18.0	8	307.0	130.0	3504	12.0	70	usa	chevrolet chevelle malibu
1	15.0	8	350.0	165.0	3693	11.5	70	usa	buick skylark 320
2	18.0	8	318.0	150.0	3436	11.0	70	usa	plymouth satellite
3	16.0	8	304.0	150.0	3433	12.0	70	usa	amc rebel sst
4	17.0	8	302.0	140.0	3449	10.5	70	usa	ford torino

Out[5]: (398, 9)

Out[8]: array([130., 165., 150., 140., 198., 220., 215., 225., 190., 170., 160., 95., 97., 85., 88., 46., 87., 90., 113., 200., 210., 193., nan, 100., 105., 175., 153., 180., 110., 72., 86., 70., 76., 65., 69., 60., 80., 54., 208., 155., 112., 92., 145., 137., 158., 167., 94., 107., 230., 49., 75., 91., 122., 67., 83., 78., 52., 61., 93., 148., 129., 96., 71., 98., 115., 53., 81., 79., 120., 152., 102., 108., 68., 58., 149., 89., 63., 48., 66., 139., 103., 125., 133., 138., 135., 142., 77., 62., 132., 84., 64., 74., 116., 82.]

Mean Squared Error (MSE): 13.94  
Root Mean Squared Error (RMSE): 3.73  
R-squared (R<sup>2</sup>): 0.74

```
Out[7]: mpg         129
cylinders          5
displacement      82
horsepower        93
weight           351
acceleration      95
model_year        13
origin            3
name             305
dtype: int64
```

Index(['mpg', 'displacement', 'horsepower', 'acceleration'], dtype='object')  
Index(['origin', 'name'], dtype='object')

Out[13]:

	count	mean	std	min	25%	50%	75%	max
mpg	398.0	23.514573	7.815984	9.0	17.500	23.0	29.000	46.6
cylinders	398.0	5.454774	1.701004	3.0	4.000	4.0	8.000	8.0
displacement	398.0	193.425879	104.269838	68.0	104.250	148.5	262.000	455.0
horsepower	398.0	104.304020	38.222625	46.0	76.000	93.5	125.000	230.0
weight	398.0	2970.424623	846.841774	1613.0	2223.750	2803.5	3608.000	5140.0
acceleration	398.0	15.568090	2.757689	8.0	13.825	15.5	17.175	24.8
model_year	398.0	76.010050	3.697627	70.0	73.000	76.0	79.000	82.0