DA Expt-2 seaborn ¶

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In [1]:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
sns.set(style="darkgrid")
cars_data = pd.read_csv('Toyota.csv', na_values=['00', '00'])
```

In [2]:

```
cars_data.shape
```

Out[2]:

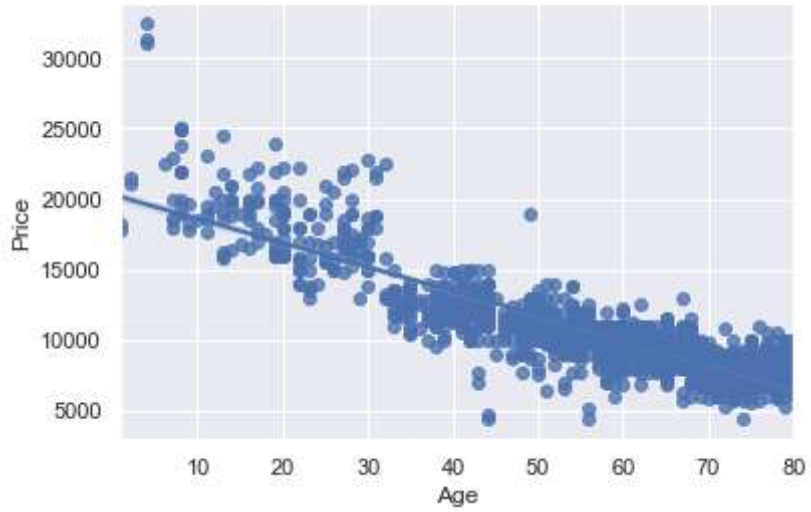
```
(1436, 10)
```

In [3]:

```
sns.regplot(x = cars_data['Age'], y=cars_data['Price'])
```

Out[3]:

```
<AxesSubplot:xlabel='Age', ylabel='Price'>
```

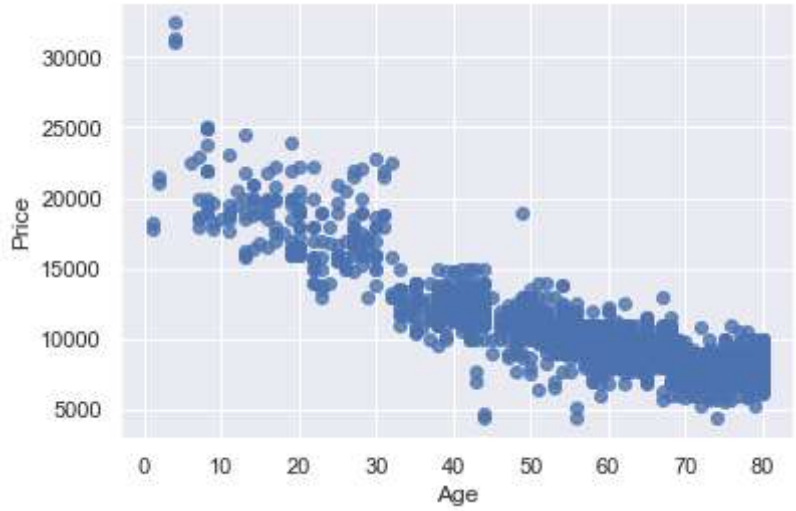


In [4]:

```
sns.regplot(x=cars_data['Age'], y=cars_data['Price'], fit_reg=False)
```

Out[4]:

```
<AxesSubplot:xlabel='Age', ylabel='Price'>
```

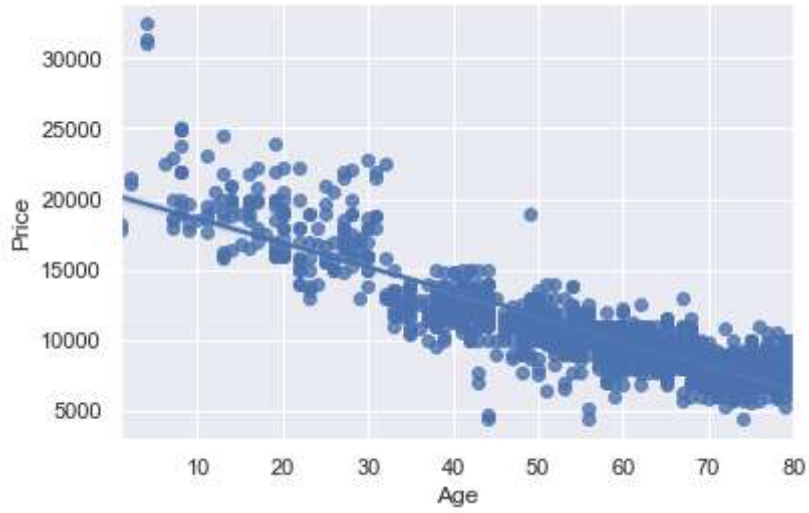


In [5]:

```
sns.regplot(x=cars_data['Age'], y=cars_data['Price'], fit_reg=True)
```

Out[5]:

```
<AxesSubplot:xlabel='Age', ylabel='Price'>
```

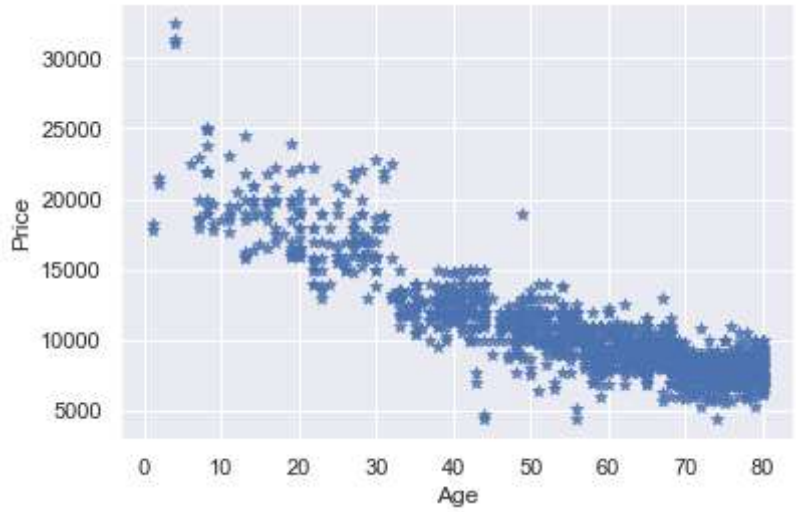


In [6]:

```
sns.regplot(x=cars_data['Age'], y=cars_data['Price'], fit_reg=False, marker='*')
```

Out[6]:

```
<AxesSubplot:xlabel='Age', ylabel='Price'>
```

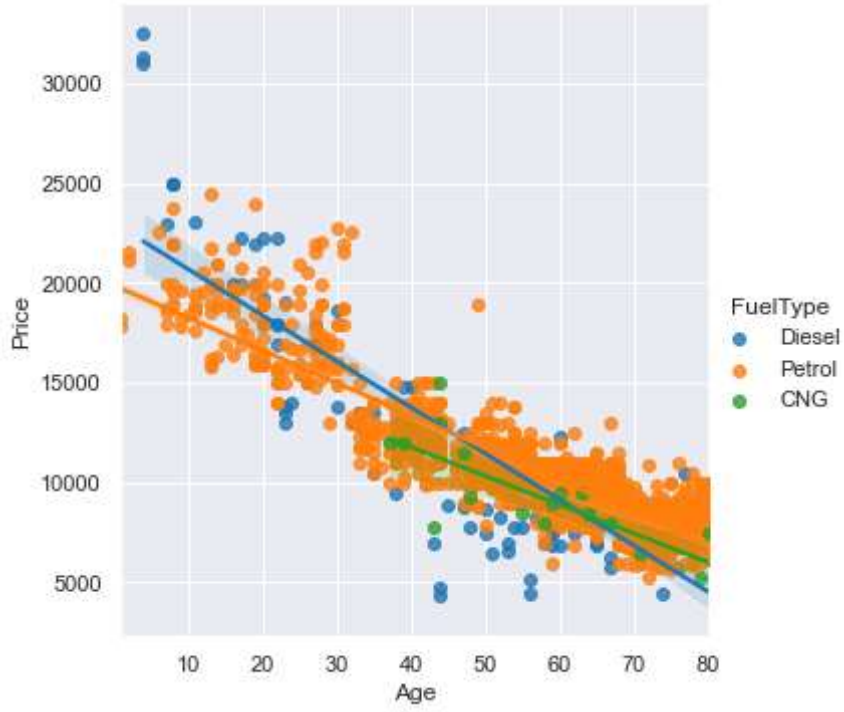


In [7]:

```
sns.lmplot(x='Age', y='Price', data=cars_data, hue='FuelType', legend=True, palette='tab10'
```

Out[7]:

```
<seaborn.axisgrid.FacetGrid at 0x1650c7f0880>
```

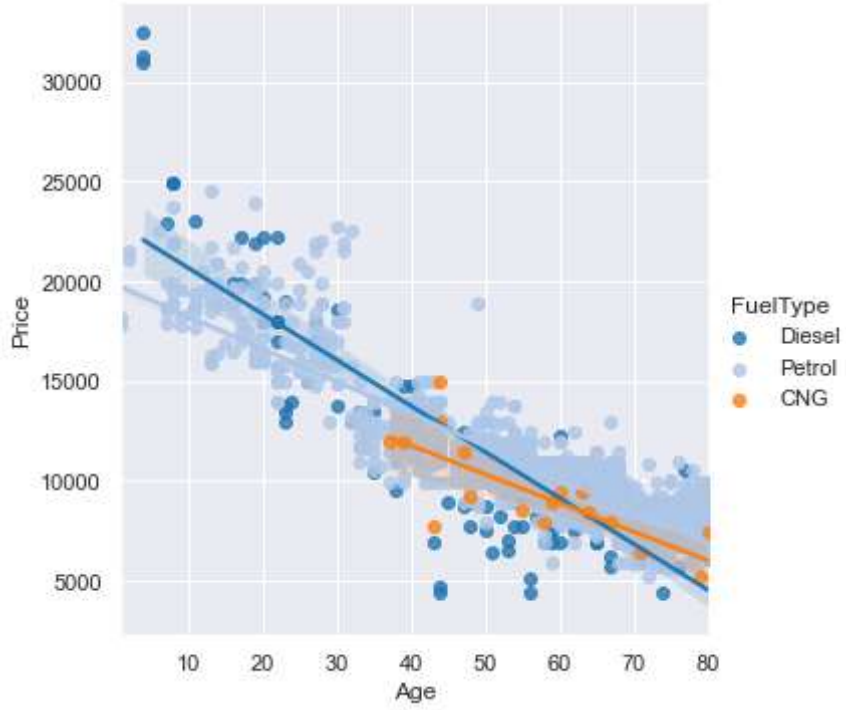


In [8]:

```
sns.lmplot(x='Age', y='Price', data=cars_data, hue='FuelType', legend=True, palette='tab20'
```

Out[8]:

```
<seaborn.axisgrid.FacetGrid at 0x1650c88bfd0>
```

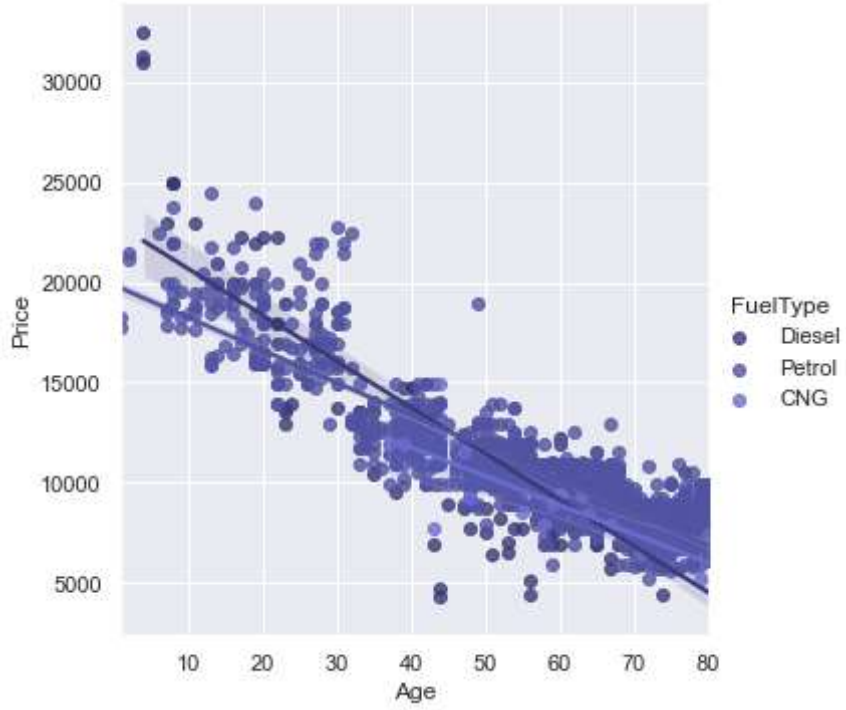


In [9]:

```
sns.lmplot(x='Age', y='Price', data=cars_data, hue='FuelType', legend=True, palette='tab20b
```

Out[9]:

```
<seaborn.axisgrid.FacetGrid at 0x165076bd460>
```

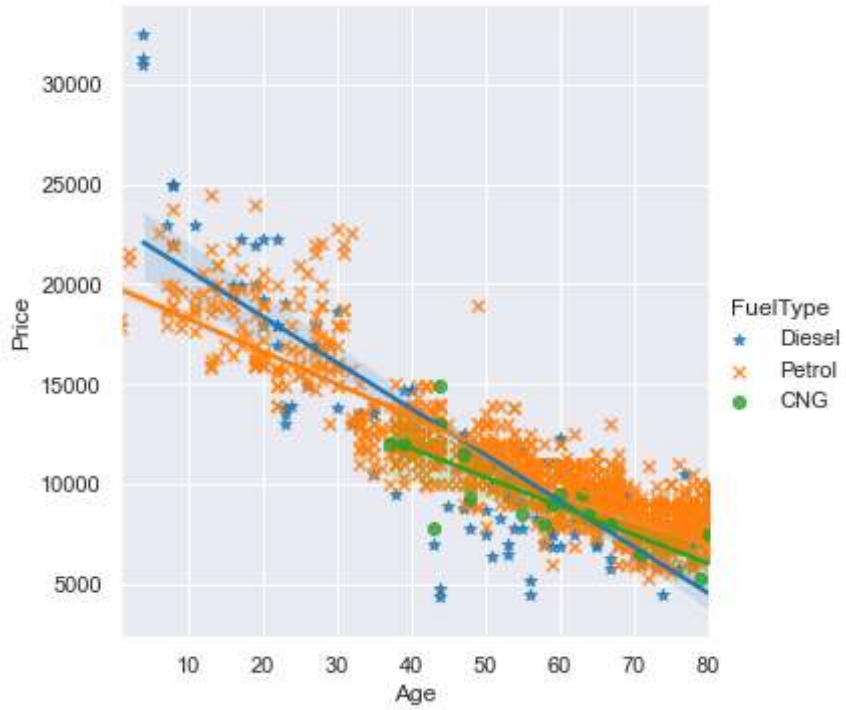


In [10]:

```
sns.lmplot(x='Age', y='Price', data=cars_data, hue='FuelType', legend=True, palette='tab10'
```

Out[10]:

```
<seaborn.axisgrid.FacetGrid at 0x1650c920d60>
```

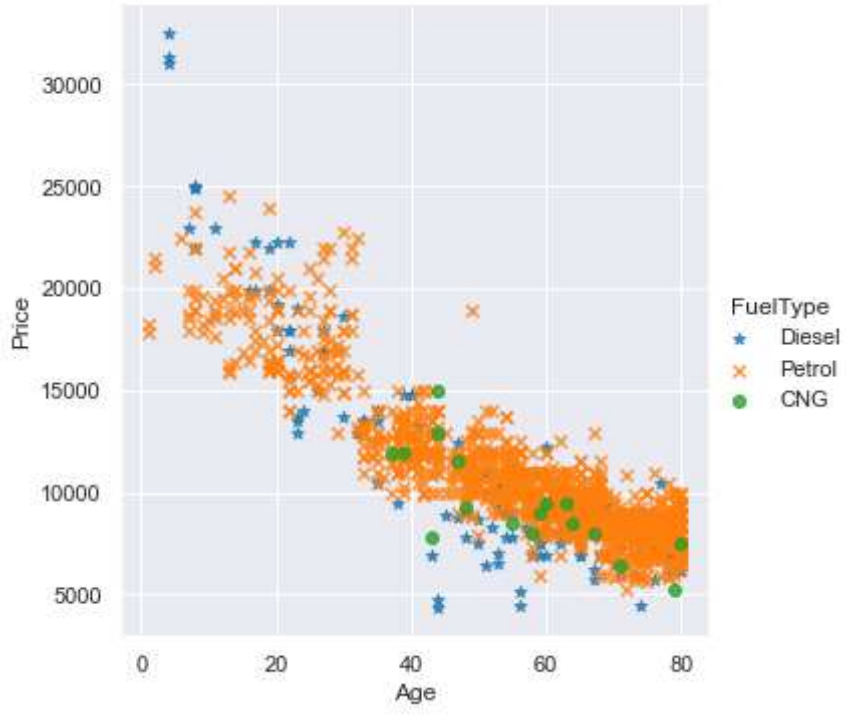


In [11]:

```
sns.lmplot(x='Age', y='Price', data=cars_data, hue='FuelType', legend=True, palette='tab10'
```

Out[11]:

```
<seaborn.axisgrid.FacetGrid at 0x1650ca21f70>
```



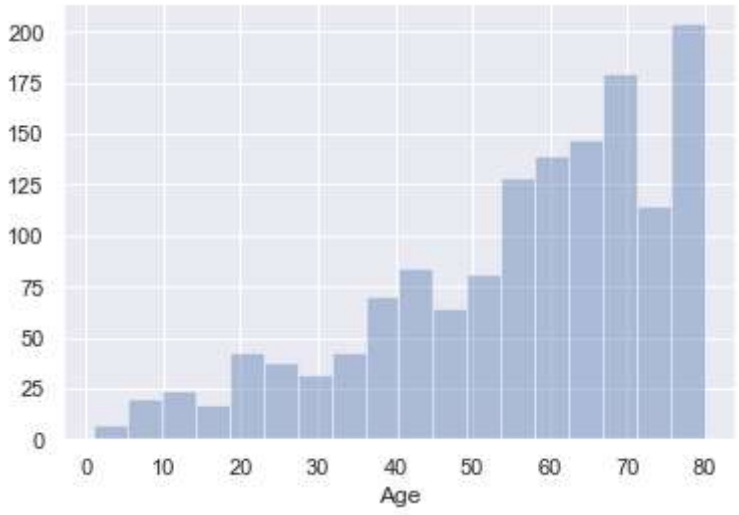
In [12]:

```
sns.distplot(cars_data['Age'], kde=False)
```

```
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:2551: FutureWa
rning: `distplot` is a deprecated function and will be removed in a future v
ersion. Please adapt your code to use either `displot` (a figure-level funct
ion with similar flexibility) or `histplot` (an axes-level function for hist
ograms).
  warnings.warn(msg, FutureWarning)
```

Out[12]:

```
<AxesSubplot:xlabel='Age'>
```

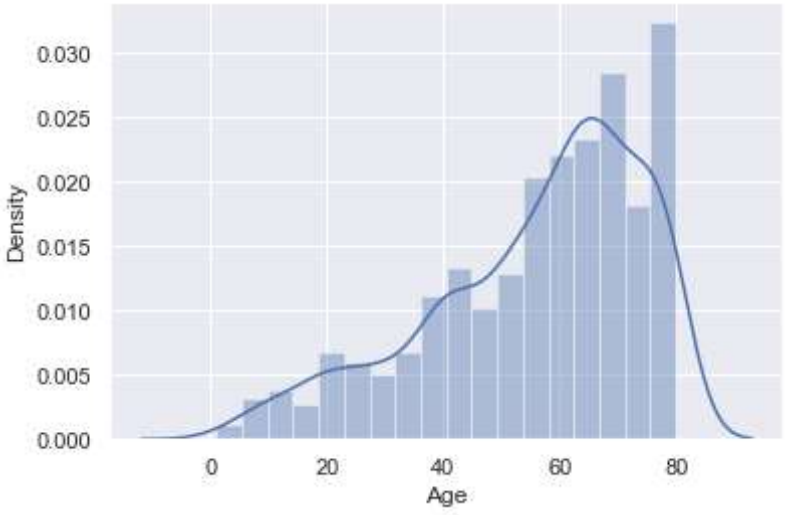


In [13]:

```
sns.distplot(cars_data['Age'], kde=True)
```

Out[13]:

```
<AxesSubplot:xlabel='Age', ylabel='Density'>
```



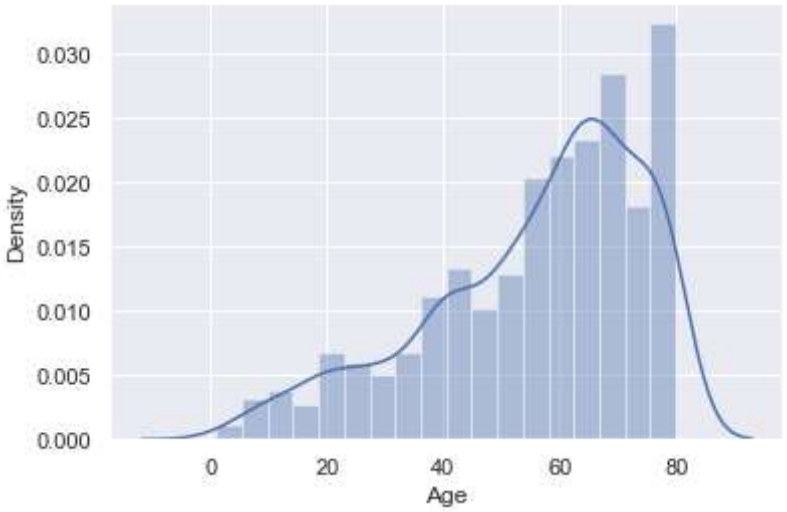
In [14]:

```
sns.distplot(cars_data['Age'])
```

```
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:2551: FutureWa
rning: `distplot` is a deprecated function and will be removed in a future v
ersion. Please adapt your code to use either `displot` (a figure-level funct
ion with similar flexibility) or `histplot` (an axes-level function for hist
ograms).
  warnings.warn(msg, FutureWarning)
```

Out[14]:

```
<AxesSubplot:xlabel='Age', ylabel='Density'>
```



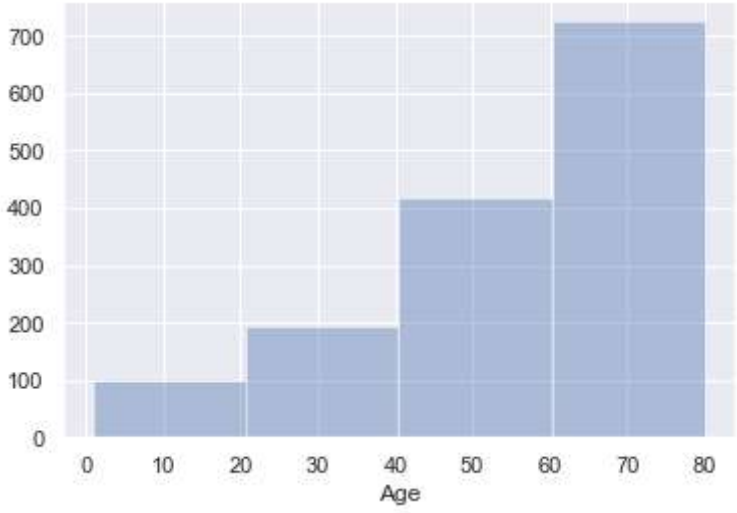
In [15]:

```
sns.distplot(cars_data['Age'], kde=False, bins=4)
```

```
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:2551: FutureWa
rning: `distplot` is a deprecated function and will be removed in a future v
ersion. Please adapt your code to use either `displot` (a figure-level funct
ion with similar flexibility) or `histplot` (an axes-level function for hist
ograms).
  warnings.warn(msg, FutureWarning)
```

Out[15]:

```
<AxesSubplot:xlabel='Age'>
```

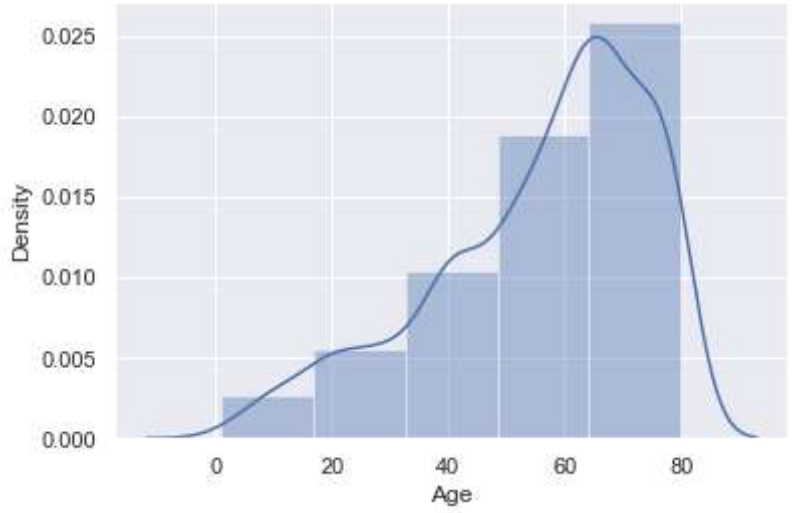


In [16]:

```
sns.distplot(cars_data['Age'], bins=5)
```

Out[16]:

```
<AxesSubplot:xlabel='Age', ylabel='Density'>
```

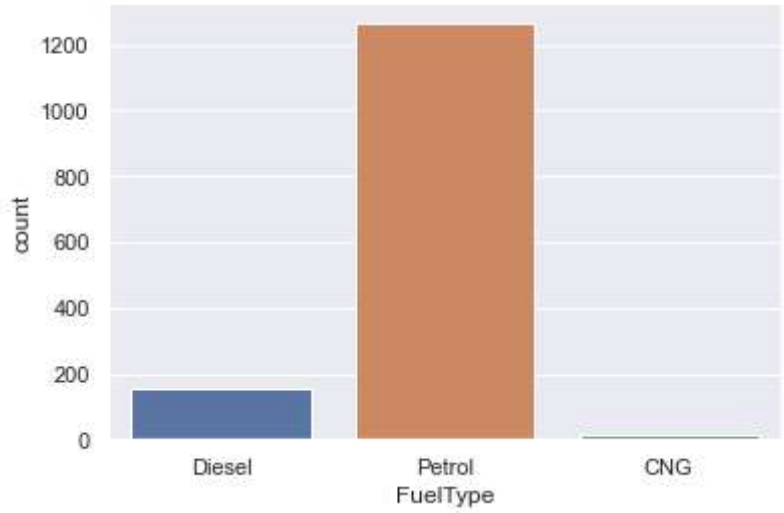


In [17]:

```
sns.countplot(x='FuelType', data=cars_data)
```

Out[17]:

```
<AxesSubplot:xlabel='FuelType', ylabel='count'>
```

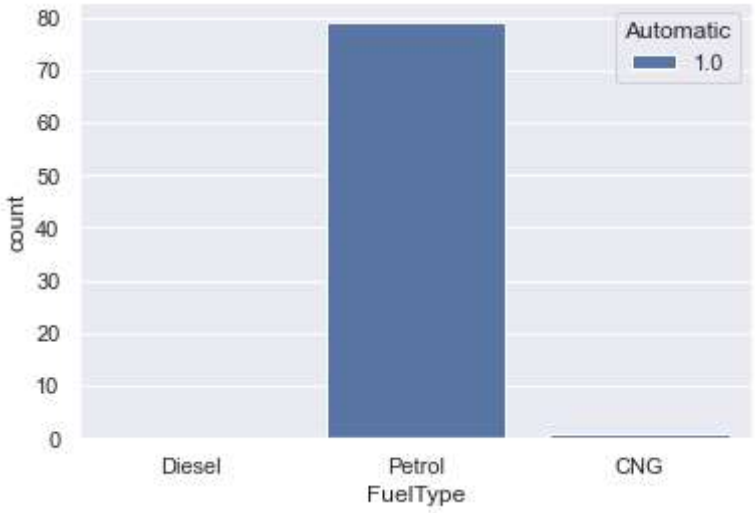


In [18]:

```
sns.countplot(x='FuelType', data=cars_data, hue='Automatic')
```

Out[18]:

```
<AxesSubplot:xlabel='FuelType', ylabel='count'>
```

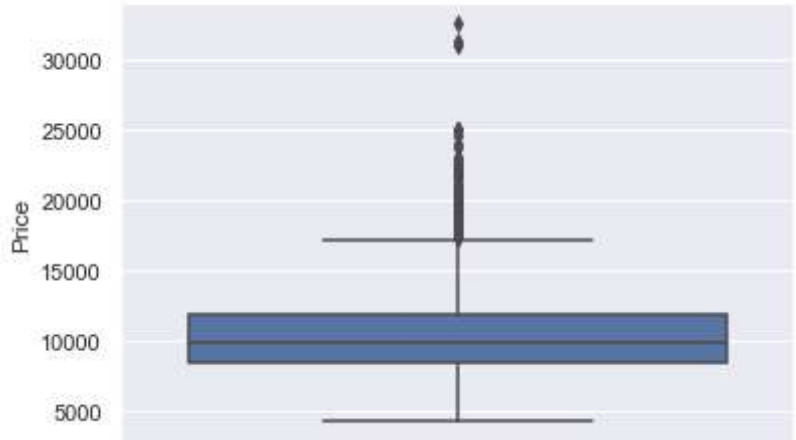


In [19]:

```
sns.boxplot(y=cars_data['Price'])
```

Out[19]:

```
<AxesSubplot:ylabel='Price'>
```

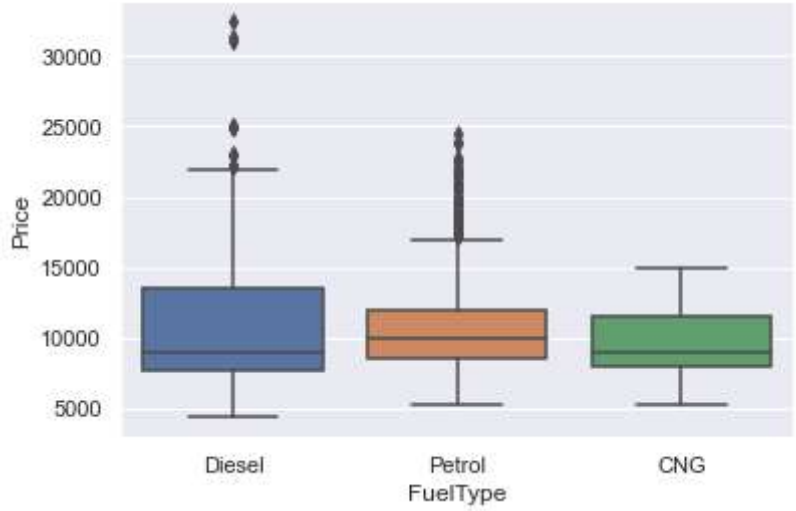


In [20]:

```
sns.boxplot(x=cars_data['FuelType'], y=cars_data['Price'])
```

Out[20]:

```
<AxesSubplot:xlabel='FuelType', ylabel='Price'>
```

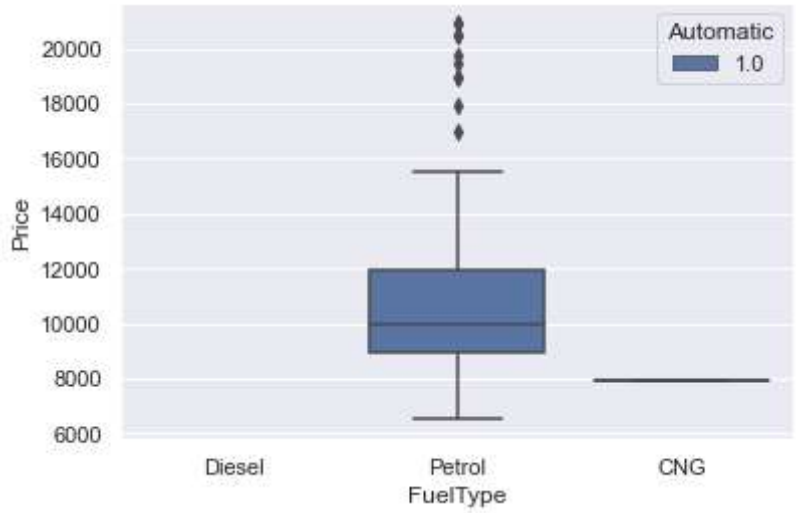


In [21]:

```
sns.boxplot(x='FuelType', y=cars_data['Price'], hue='Automatic', data=cars_data)
```

Out[21]:

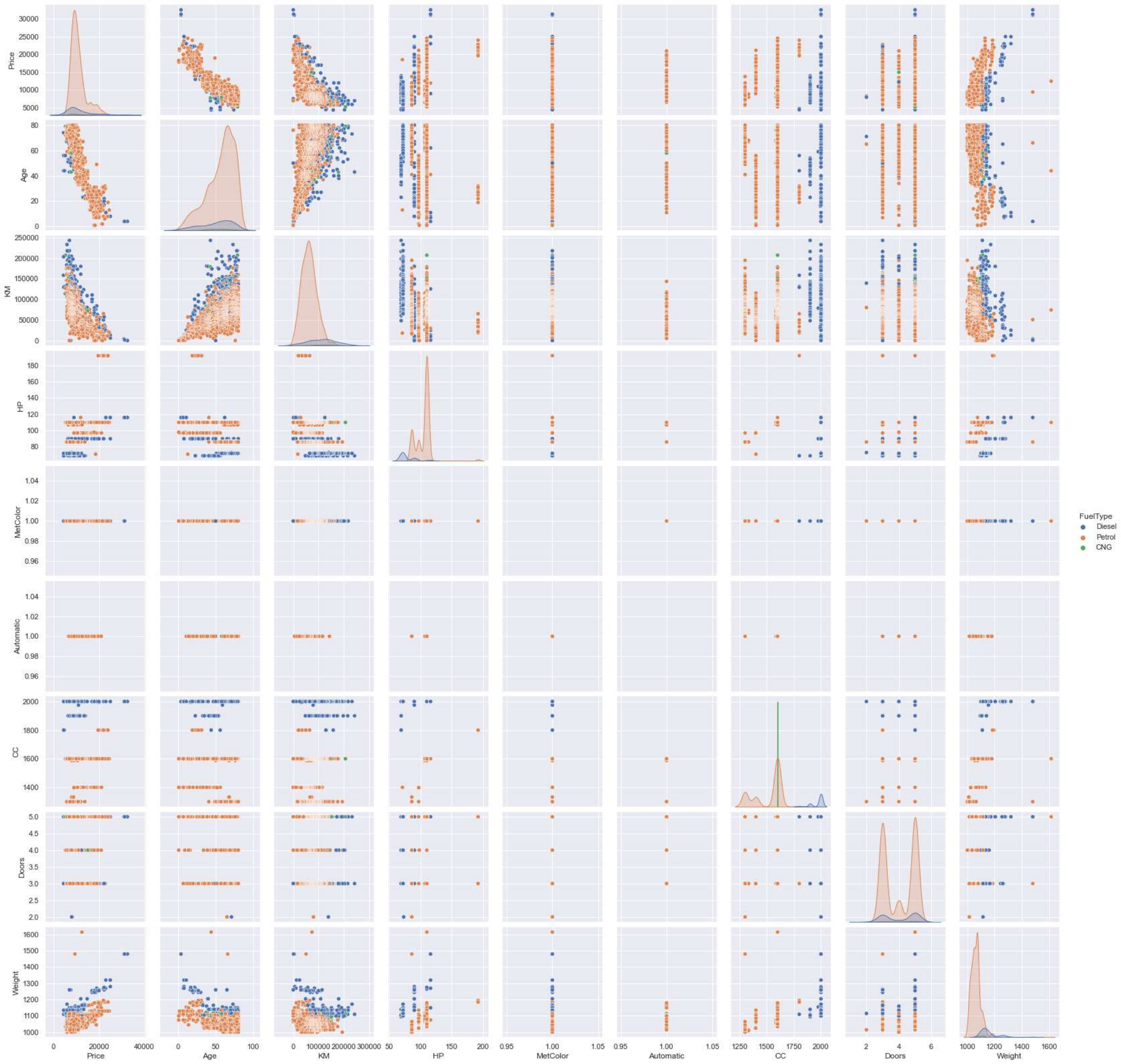
```
<AxesSubplot:xlabel='FuelType', ylabel='Price'>
```



In [22]:

```
sns.pairplot(cars_data, kind='scatter', hue='FuelType')
plt.show()
```

```
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:305: UserWarni
ng: Dataset has 0 variance; skipping density estimate.
  warnings.warn(msg, UserWarning)
```

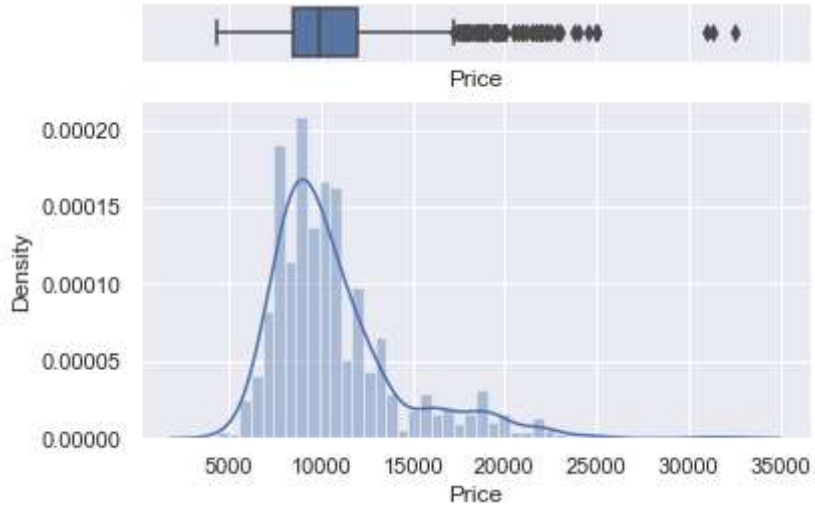


In [23]:

```
f, (ax_box, ax_hist) = plt.subplots(2, sharex=True,  gridspec_kw={"height_ratios": (.15, .8

sns.boxplot(cars_data['Price'], ax=ax_box)
sns.distplot(cars_data['Price'], ax=ax_hist)
plt.show()
```

```
D:\python_anaconda\lib\site-packages\seaborn\_decorators.py:36: FutureWarnin
g: Pass the following variable as a keyword arg: x. From version 0.12, the o
nly valid positional argument will be `data`, and passing other arguments wi
thout an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
D:\python_anaconda\lib\site-packages\seaborn\distributions.py:2551: FutureWa
rning: `distplot` is a deprecated function and will be removed in a future v
ersion. Please adapt your code to use either `displot` (a figure-level funct
ion with similar flexibility) or `histplot` (an axes-level function for hist
ograms).
  warnings.warn(msg, FutureWarning)
```



In [ ]:

In [ ]:

In [ ]: