Assessing

Use the space below to explore `all_alpha_08.csv` and `all_alpha_18.csv` to answer the quiz questions below.

```
In [1]:   import pandas as pd
          from IPython.display import display
```

```
In [3]:   df_08 = pd.read_csv('all_alpha_08.csv')
          display(df_08.head())
```

	Model	Displ	Cyl	Trans	Drive	Fuel	Sales Area	Stnd	Underhood ID	Veh Class	Air Pollution Score	Ca Ap
0	ACURA MDX	3.7	(6 cyl)	Auto-S5	4WD	Gasoline	CA	U2	8HNXT03.7PKR	SUV	7	[
1	ACURA MDX	3.7	(6 cyl)	Auto-S5	4WD	Gasoline	FA	B5	8HNXT03.7PKR	SUV	6	[
2	ACURA RDX	2.3	(4 cyl)	Auto-S5	4WD	Gasoline	CA	U2	8HNXT02.3DKR	SUV	7	[
3	ACURA RDX	2.3	(4 cyl)	Auto-S5	4WD	Gasoline	FA	B5	8HNXT02.3DKR	SUV	6	[
4	ACURA RL	3.5	(6 cyl)	Auto-S5	4WD	Gasoline	CA	U2	8HNXV03.5HKR	midsize car	7	[

```
In [5]:   df_18 = pd.read_csv('all_alpha_18.csv')
          display(df_18.head())
```

	Model	Displ	Cyl	Trans	Drive	Fuel	Cert Region	Stnd	Stnd Description	Underhood I
0	ACURA RDX	3.5	6.0	SemiAuto-6	2WD	Gasoline	FA	T3B125	Federal Tier 3 Bin 125	JHNXT03.5G\
1	ACURA RDX	3.5	6.0	SemiAuto-6	2WD	Gasoline	CA	U2	California LEV-II ULEV	JHNXT03.5G\
2	ACURA RDX	3.5	6.0	SemiAuto-6	4WD	Gasoline	FA	T3B125	Federal Tier 3 Bin 125	JHNXT03.5G\
3	ACURA RDX	3.5	6.0	SemiAuto-6	4WD	Gasoline	CA	U2	California LEV-II ULEV	JHNXT03.5G\
4	ACURA TLX	2.4	4.0	AMS-8	2WD	Gasoline	CA	L3ULEV125	California LEV-III ULEV125	JHNXV02.4WH

In [6]: `df_08.shape`

Out[6]: `(2404, 18)`

In [7]: `df_18.shape`

Out[7]: `(1611, 18)`

In [9]: `df_08.duplicated().sum()`

Out[9]: 25

In [11]: `df_18.duplicated().sum()`

Out[11]: 0

In [10]: `df_08.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2404 entries, 0 to 2403
Data columns (total 18 columns):
Model                   2404 non-null object
Displ                   2404 non-null float64
Cyl                     2205 non-null object
Trans                   2205 non-null object
Drive                   2311 non-null object
Fuel                    2404 non-null object
Sales Area              2404 non-null object
Stnd                    2404 non-null object
Underhood ID            2404 non-null object
Veh Class               2404 non-null object
Air Pollution Score     2404 non-null object
FE Calc Appr            2205 non-null object
City MPG                2205 non-null object
Hwy MPG                 2205 non-null object
Cmb MPG                 2205 non-null object
Unadj Cmb MPG           2205 non-null float64
Greenhouse Gas Score    2205 non-null object
SmartWay                2404 non-null object
dtypes: float64(2), object(16)
memory usage: 338.1+ KB
```

```
In [12]: df_18.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1611 entries, 0 to 1610
Data columns (total 18 columns):
Model                  1611 non-null object
Displ                  1609 non-null float64
Cyl                    1609 non-null float64
Trans                  1611 non-null object
Drive                  1611 non-null object
Fuel                   1611 non-null object
Cert Region            1611 non-null object
Stnd                   1611 non-null object
Stnd Description       1611 non-null object
Underhood ID           1611 non-null object
Veh Class              1611 non-null object
Air Pollution Score    1611 non-null int64
City MPG               1611 non-null object
Hwy MPG                1611 non-null object
Cmb MPG                1611 non-null object
Greenhouse Gas Score   1611 non-null int64
SmartWay               1611 non-null object
Comb CO2               1611 non-null object
dtypes: float64(2), int64(2), object(14)
memory usage: 226.6+ KB
```

```
In [14]: df_18.isnull().sum()
```

```
Out[14]: Model                  0
         Displ                  2
         Cyl                    2
         Trans                  0
         Drive                  0
         Fuel                   0
         Cert Region            0
         Stnd                   0
         Stnd Description       0
         Underhood ID           0
         Veh Class              0
         Air Pollution Score    0
         City MPG               0
         Hwy MPG                0
         Cmb MPG                0
         Greenhouse Gas Score   0
         SmartWay               0
         Comb CO2               0
         dtype: int64
```

```
In [ ]:
```