

Consider the automobile data set posted on blackboard. The Automobile dataset has a different characteristic of an auto such as body-style, wheel-base, engine-type, price, mileage, horsepower and many more. **In Python**, answer the following:

1. (3 points) Using the pandas library, read the csv datafile and create a data-frame called **autos**
2. (3 points) Report the mean **price**
3. (3 points) Report the median **price**
4. (3 points) A common rule of thumb to determine the skewness of a numeric dataset is to compare the mean and the median using the following rules:
  - If the mean  $>$  the median  $\Rightarrow$  right-skewed distribution
  - If the mean  $\approx$  the median  $\Rightarrow$  symmetric distribution
  - If the mean  $<$  the median  $\Rightarrow$  left-skewed distribution

Using the above rules, what is the skewness of **price**?

5. (3 points) Compute the variance of **price**
6. (3 points) Compute mean of the  $\log(\text{price})$