## Unit 1 Discussion Example - Initial Post

Download the MM305_DataSets zip file to your computer. You should then select a data set (you may need to use more than one data set to complete the Discussion). You will NOT be able to copy and paste a graph into the Discussion Board, so you should copy your graph to a Word Document and attach it to your response post.

Describing Data with Numbers and Graphs

1. Identify the categorical and numerical variables (also known as qualitative and quantitative variables) in the dataset. (If your dataset does not have both types of variables, please pick an additional dataset.)
2. Select one of your numerical variables and determine whether it is discrete or continuous.
3. Run descriptive statistics on your variable using Excel Data Analysis. Share the summary table in your post.
4. Using Excel, create a bar chart (discrete) or histogram (continuous) for your variable.
5. Attach the Word or Excel file containing the chart to the discussion post.
6. I choose to download and analyze the UsedCar.xlsx

Categorical variables: Car,
Numerical variables: Year, Age, Price(\$), Mileage, Fuel (MPG)
2. I will consider mileage which is a numerical variable and it is continuous because mileage could be any calculated value between some interval (Note: Usually it is rounded to whole number precision).
3. Descriptive Statistics Summary Table:

| Mileage |  |
| :--- | ---: |
|  |  |
| Mean | 66675.15333 |
| Standard Error | 2238.709839 |
| Median | 63914.5 |
| Mode | 2222 |
| Standard Deviation | 47490.20725 |
| Sample Variance | 2255319784 |
| Kurtosis | 0.625629859 |
| Skewness | 0.730540773 |
| Range | 284631 |
| Minimum | 528 |
| Maximum | 285159 |
| Sum | 30003819 |
| Count | 450 |

4. I created a histogram with a bin width of the range/9 (to get 10 total bins).

Bin width $=284,631 / 9=31,626 \mathrm{mpg}$


