PLEASE MAKE A COPY TO COMPLETE THE PROJECT!

Project: Diamond Prices

Complete each section. Then save your file as a PDF document and submit it here: https://classroom.udacity.com/nanodegrees/nd008/parts/235a5408-0604-4871-8433-a6d670e37bbf/project#

Step 1: Understanding the Model

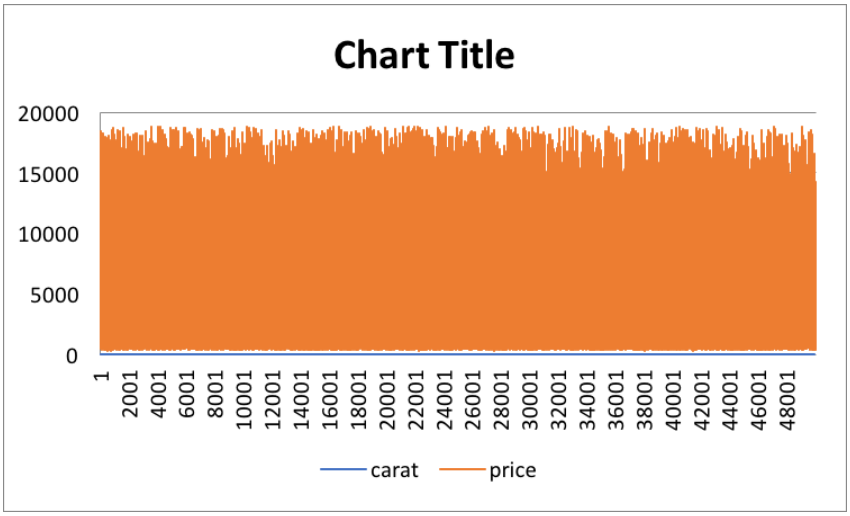
Answer the following questions:

1. According to the linear model provided, if a diamond is 1 carat heavier than another with the same cut and clarity, how much more should we expect to pay? Why?
    - We should expect to pay more because the prediction taking from the historical data.

2. If you were interested in a 1.5 carat diamond with a **Very Good** cut (represented by a 3 in the model) and a **VS2** clarity rating (represented by a 5 in the model), how much would the model predict you should pay for it?
    - The price can be predicted from the following equation
      Price = -5,269 + 8,413 x **Carat** + 158.1 x **Cut** + 454 x **Clarity**

Step 2: Visualize the Data

Make sure to plot and include the visualizations in this report. For example, you can create graphs in Excel and copy and paste the graphs into this Word document.

1. Plot 1 - Plot the data for the diamonds in the database, with carat on the x-axis and price on the y-axis.
    - o 

2. Plot 2 - Plot the data for the diamonds for which you are predicting prices with carat on the x-axis and predicted price on the y-axis.
    - o **Note**: You can also plot both sets of data on the same chart in different colors.
    - o I will skip this question and the one below till I learn more with the next lessons.
3. What strikes you about this comparison? After seeing this plot, do you feel confident in the model's ability to predict prices?

Step 3: Make a Recommendation

Answer the following questions:

1. What price do you recommend the jewelry company to bid? Please explain how you arrived at that number. HINT: The number should be 7 digits.
    - ○ Currently, I am not sure how to answer this question accurately, but I with the coming lessons I will be.