|  |  |
| --- | --- |
| Data contains 50 observations per predictor | - |
| Response var is quantitative | - |
| 6-10 predictor variables | - |
| 3 predictors are quantitative | - |
| 1 predictor is categorical | - |

**STA 321 Final Project**

Monica Klosin

**Part 1: Planning**

Does data adhere to rules (yes):

research question: “what variables influence the price of Diamonds?” using various qualities of a diamond in the data set attached.

response variable: Diamond price

predictor variables:

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable Name** | **Variable Type** | **Range** | **Possible Categories** |
| Carat | Quantitative | (0.2-5.01) |  |
| Cut | Categorical |  | Fair, Good, Very Good, Premium, Ideal |
| Color | Categorical |  | D, E, I, J, H, F, J |
| Clarity | Categorical |  | I1 (worst), SI2, SI1, VS2, VS1, VVS2, VVS1, IF (best) |
| Depth | Quantitative | (43-79) |  |
| table | Quantitative | (43-95) |  |
| X | Quantitative | (0-10.74) |  |
| Y | Quantitative | (0-58.9) |  |
| Z | quantitative | (0-31.8) |  |

source: https://ggplot2.tidyverse.org/reference/diamonds.html for finding data, then https://www.kaggle.com/shivam2503/diamonds for csv of data