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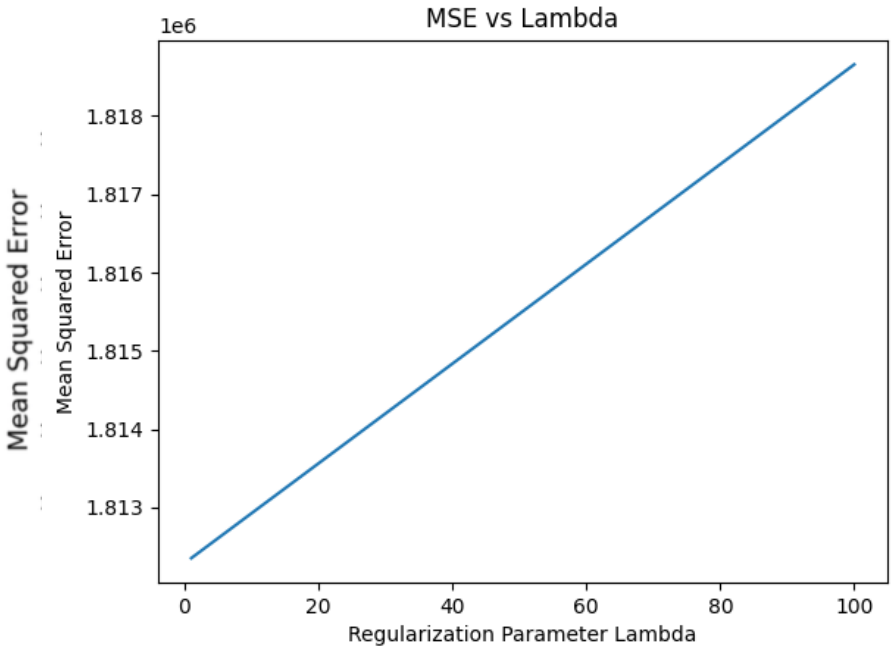
Problem2_writeup

Finding Best Lambda: *(insert plot obtained by completing the main function)*



(insert numerical values for c and d)

Based on the range of Lambda values tested, the best lambda value is c, which yields an MSE of d as shown on the plot above. c = 1 d = 1812352.2198911652

Equation of best fitted model:

(insert numerical values for a_i's and b)

$$\hat{y}(\boldsymbol{x}) = a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + a_5x_5 + a_6x_6 + a_7x_7 + a_8x_8 + a_9x_9 + b$$

a1 = 5157.12 a2 = -208.01 a3 = -207.21 a4 = -1431.94 a5 = 237.83
a6 = -31.51 a7 = 500.52 a8 = 73.92 a9 = -460.23 b = 3928.08

(insert number value for $abc.ef)

The predicted price for a 0.25 carrot, 3 cut, 3 color, 5 clarity, 60 depth, 55 table, 4 x, 3 y 2 z diamond is $abc.ef, which was determined by *[insert explanation]*.

According to the equation of the best fitted model, the predicted price comes out to $10652.13 by using the quantities provided by the question. Using the model, we can predict the price based on what qualities we are looking for