Regression and Classification

Assignment 1

2023-11-04

Total Points 10 points

- Use the `Bengaluru_House_Data.csv` data for this assignment.
- Do your analysis using **R-markdown**. Compile it as pdf file. Then print it. Staple it and submit it.
- Make sure you write your Name, Email ID and Roll Number on the top of it.
- You can submit it with the front desk security.
- **Deadline** : 12-Nov-2023 - 11:59 pm

1. Fit an appropriate predictive models to model the `price` of houses in Bengaluru. (1 point)
2. Justify the choice of your final model. (1 point)
3. Using the model, answer the following question for a builder.

- a. If a builder builds a house with a total size of 2000 sq. ft., 3 BHK, and includes 2 bathrooms, how much should the builder expect as a premium when building the house in a society compared to not building it in a society? (2 points)
- b. What would be the premium a builder could anticipate when constructing a house of 3000 sq. ft., featuring 5 BHK and 4 bathrooms, in a society as opposed to not building it in a society? (2 points)
- c. When building a 2000 sq. ft. house with 3 BHK in a society, how does the price vary between a house with 3 bathrooms and one with 4 bathrooms? (2 points)
- d. When building a 1500 sq. ft. house in a society with 2 bathrooms, how does the price vary between a 2BHK house and a 3BHK house? (2 points)

Hint:

1. Plot `total_sqft` vs `price`as it is.
2. Plot `total_sqft` vs `price` in `log10` scale