Finance 4355/5355

Assignment 1: R

*Instructions: You may work with one other person on this assignment.*

## Step 1: Introduction

Load the Housing data into R. Look at the summary statistics. Does everything look okay?

## Step 2: Ordinary Least Squares

Estimate the following equation using Least Squares (OLS). The dependent variable is Sales Price (in $). The predictor variables is bedrooms (#). Is the predictor variables significant? Interpret the effect of beds on sales price.

## Step 3: Ordinary Least Squares Model 2

Estimate the following equation using Least Squares (OLS). The dependent variable is Sales Price (in $). The predictor variables are Year Sold, Full Baths (#) and Lot Are (in square feet). Are the predictor variables significant? Interpret the effect of Lot Area and Beds (#).

## Step 4: Ordinary Least Squares Model 3

Estimate the following equation using Least Squares (OLS). The dependent variable is Sales Price (in $). The predictor variables are Year Sold, Beds (#) and Lot Area (in square feet) and a factor variable for external quality. Are the predictor variables significant? Interpret the effect of the External Quality variables on Sales price.

## Step 5: Ordinary Least Squares Model 4

Re-estimate equation (3) with Log Lot Area. Are the predictor variables significant? Interpret the effect of the Log Lot Area variables on Sales price

## Step 6: Ordinary Least Squares Model 5

Re-estimate equation (4) with Log Sales price as the dependent variable.. Are the predictor variables significant? Interpret the effect of the Log Lot Area variables on Sales price

Based on the models you have estimated, which model do you think is the best? Why?

## Step 7: Ordinary Least Squares Model 6

Rerun Equation 5 with another predictor variable of your own choosing.

## Step 8: Include your R code as an appendix and submit on Blackboard by October 3rd, 2022.