COMPUTER ASSIGNMENT #4—Bivariate Regression Analysis

What determines the sale price of a house? In this assignment I want you to use regression analysis to assess whether the sale price of a house is directly related to the size of the house. In order to help you answer this question I have posted some real estate data to my web page (Computer Project #4 Data). The relevant variables are “Size” (measured in square feet) and “Price” (measured in thousands of dollars). Run the appropriate regression using Excel and carry out the following tasks:

1. Write down the equation of the fitted model implied by your regression results.

2. Interpret your regression’s slope coefficient.

3. According to your regression results, what is the expected effect of a 100 square foot increase in home size on house sale price? Explain.

4. State the appropriate null and alternative hypotheses regarding the slope coefficient in this problem. Briefly justify your choice of alternative hypothesis.

5. Based on your regression results, what inference regarding the null hypothesis should be drawn? Explain fully.

6. Interpret the value of the $R^2$ found in your regression results.

Include the Excel regression output at the end of your report as an appendix.

Write up your answers using Microsoft Word.

DUE: Turn in prior to Exam III on Monday, April 26. No credit for electronic submissions.