(3) Write a linear regression algorithm by yourself.

- Use Boston House Dataset (506 samples and 13 feature variables),

predict the value of prices of the house using the given features.

- Split input data into training and testing sets (the testing set includes 10%ofthe samples).

- The output of the algorithm should include the model learned from the whole training set, the average mean squared error (MSE) on training set via 10-fold cross validation.

For ridge regression model, determine the value of hyper-parameter via 10-fold cross validation.

(4) Write the experimental process and results into an experimental report. (strict content, abundant pictures and words).

- See if there are any missing values in the data.

show the meansquared error (MSE) on testing set, plot a scatter plot between the original house price and predicted house prices).

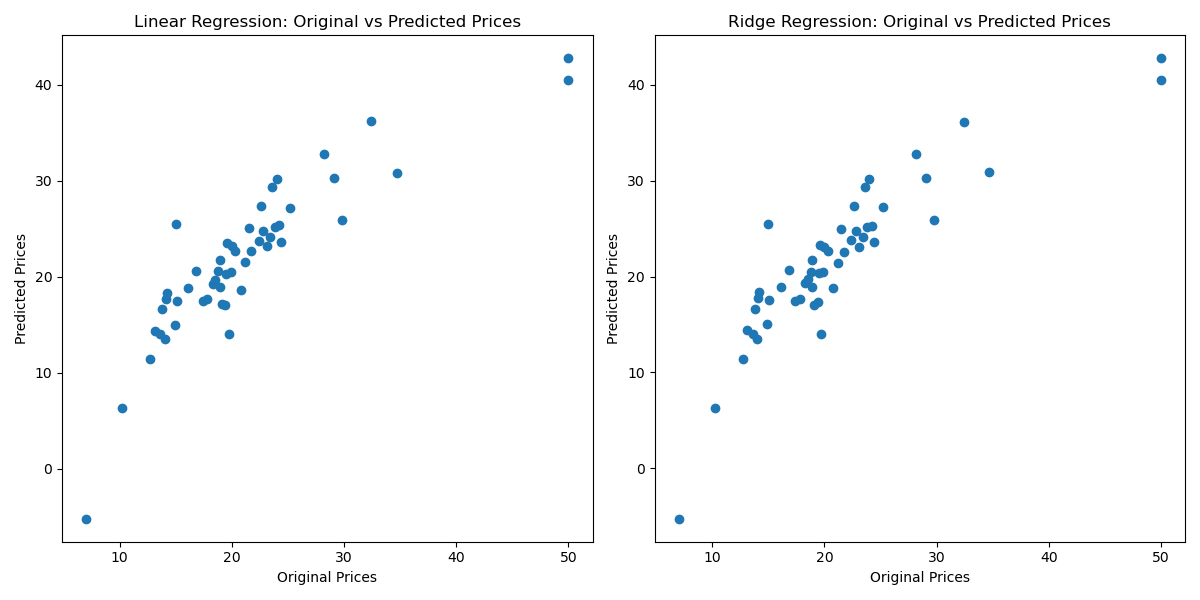


Figure 3 Original house price and Predicted house prices