**Step1. Open the data/house.arff**

Dataset Click the “Open file…” button to open a data set and double click on the “data” directory.

Weka provides a number of small common machine learning datasets that you can use to practice on.

Select the “house.arff” file to load the house dataset.

**Step2. Creating the regression model with WEKA To create the model, click on the Classify tab.**

The first step is to select the model we want to build, so WEKA knows how to work with the data, and how to create the appropriate model:

1. Click the Choose button, then expand the functions branch

2. Select the LinearRegression leaf with using training set test option.

3. Click Start to create a model

**Step3: Interpreting the regression model Regression output**

sellingPrice=(-26.6882\*houseSize)+(7.0551\*lotSize)+(43166.0767\*bedrooms)+ (42292.0901\*bathroom)-21661.1208

House value using regression model

SellingPrice=(-26.6882\*2983)+(7.0551\*9365)+(43166.0767\*5)+(42292.0901\*1) - 21661.1208

sellingPrice = 222,921

**Step4: Re-evaluate model on current test**

Click on supplied test set, Click set then open your file(house.arff)

Click on more options uncheck all options then choose Plain Text

Right click on previous result and click Re-evaluate model on current test

**Conclusion**

• Granite doesn't matter :It will throw out and ignore columns that don't help in creating a good model. So this regression model is telling us that granite in your kitchen doesn't affect the house's value.

• Bathrooms do matter: Since we use a simple 0 or 1 value for an upgraded bathroom, we can use the coefficient from the regression model to determine the value of an upgraded bathroom on the house value. The model tells us it adds $42,292 to the house value.

• Bigger houses reduce the value: Model is telling us that the bigger our house is, the lower the selling price? This can be seen by the negative coefficient in front of the houseSize variable.