Your prediction task is to predict the selling price of homes in Polk County, IA given a set of predictors. The training dataset consists of approximately *n = 6,000* homes recently sold in the county. The test data set consists of approximately 4,000 homes which you will of course only have the potential predictor values for. The variable descriptions are given below.

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| **Variable** | **Description** |
| ***Price (Y)*** | This is the response for the prediction problem and is the price the home sold for in U.S. dollars ($). |
| ***juris*** | This is a categorical variable which denotes the region/city within Polk County the home was in. The codes are:AL = Altoona, ANK = Ankeny, BO = Bondurant, CL = Clive, DM = Des Moines, GR = Grimes, JO = Johnston, O = Other, PC = Polk City, PH = Pleasant Hill, UR = Urbandale, WDM = West Des Moines |
| ***month*** | Month the home sale occurred (1 = January, …, 12 = December) |
| ***deed*** | 1 = Deed or 0 = Contract |
| ***bldg.full*** | Assessed value of building(s) on the lot. ($) |
| ***total.full*** | Assessed value of entire property (land and structures) ($) |
| ***transact***  | Type of transaction type (AL = arms length, F = foreclosure, O = other) |
| ***land.acres*** | Lot size in acres. |
| ***residence.type*** | Residence Type - 1.5 Stories, 2 Stories, 1 Story with Finished Attic, 1 Story with Unfinished Attic, 1 Story, Over 2 Stories, Partial Construction, Split Foyer, Split Level, Other |
| ***bldg.style*** | Split, Ranch, Other, Early 20s, Conv (conventional), Bungalow  |
| ***ext.wall*** | Material used to construct exterior walls – Wood, Vinyl, Metal, Hardboard, Conc.Board, Brick, Other |
| ***percent.brick*** | Percentage of house that is brick, ranges from 0 – 100. |
| ***roof.type*** | Gable, Hip, Other |
| ***main.living.area*** | Square foot main living area |
| ***upper.living.area*** | Square foot upper living area |
| ***fin.attic.area*** | Square foot of finished attic area |
| ***total.living.area*** | Total square foot living area |
| ***unfin.attic.area*** | Square foot of unfinished attic area |
| ***foundation*** | Material used to construct foundation –Poured Concrete, Concrete Block, Brick, Other |
| ***basement.area*** | Square foot of basement area |
| ***fin.bsmt.area.tot*** | Square foot of finished basement area |
| ***bsmt.walkout*** | Lineal feet of exposed wall |
| ***bsmt.gar.capacity*** | Number of cars (capacity) that fit in basement garage |
| ***att.garage.area*** | Square foot of attached garage |
| ***open.porch.area*** | Square foot of all attached open porches |
| ***enclose.porch.area*** | Square foot of all attached enclosed porches |
| ***patio.area*** | Square foot of all patio areas |
| ***deck.area*** | Square foot of all deck areas |
| ***canopy.area*** | Square foot of all canopies |
| ***veneer.area*** | Lineal feet of brick veneer on house |
| ***carport*** | Is there are carport? (1 = yes, 0 = no) |
| ***bathrooms*** | Number of full or ¾ baths |
| ***toilet.rooms*** | Number of ½ baths |
| ***extra.fixtures*** | Number of extra fixtures |
| ***whirlpools*** | Number of whirlpool tubs |
| ***fireplaces*** | Number of fireplaces |
| ***bedrooms*** | Number of bedrooms |
| ***rooms*** | Total number of rooms |
| ***year.built*** | Year home was built |
| ***gasair*** | Homes has gas furnace with forced air heat (1 = yes, 0 = no) |
| ***air.conditioning*** | Percent of central air conditioning (ranges 0 = none to 100 = full) |
| ***detached*** | Are there detached structures? (1 = yes, 0 = no) |
| ***bsmt.qual*** | Basement quality – None (i.e. no basement), Average, Average Plus, Living Quarters |
| ***condition*** | The condition of the house for its age and type of construction1 = Very poor, 2 = Poor, 3 = Below Normal, 4 = Normal, 5 = Above Normal, 6 = Very Good, 7 = Excellent |
| ***grade*** | The quality of construction ranging from 1 to 6, with 1 being the best (notice it uses an opposite ordering than condition) |
| ***grade.adj*** | An adjustment made between different grades above – adjusts up or down on the grade scale above. The smaller the adjusted grade value the better the quality of the original construction. |

The training cases are located in the .csv file linked to my website in a file called
**Polk(train).csv**and the test cases are in **Polk(test).csv**.