

Competition description

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The files in the course content repo:

- i. Assignment/competition/competition-train.csv
- ii. Assignment/competition/competition-validation.csv
- iii. Assignment/competition/competition-test-predictor-values.csv

are the training set, validation set and test set respectively. The columns of this dataset are X_1, \dots, X_{21} , `outcome`. The goal is to predict `outcome` using X_1, \dots, X_{21} . You should use `competition-data.csv` to build your model. You should submit a csv file called `competition-test-outcome.csv` containing a single column of predictions for the `outcome` variable for the `competition-test-predictor-values.csv` dataset. Only the instructor has access to the corresponding outcome values which will be used to evaluate your performance.

You should create a git repo with your code that produces `competition-test-outcome.csv`. If there are multiple files then there should be a readme giving a brief summary. Please note that I will look at the git history to ensure that all team members made meaningful contributions to the repo.

Hint: if your team are novice git users then it may be best to work on separate files in the repo to avoid conflicts.

The assignment will be scored on two criteria:

1. Quality of the code in the git (3 points).
 - a. Is the code readable?
 - b. Were sensible models tried?
 - c. Does the revision history contain descriptive changes?
2. Quality of the predictions on the **test set** in terms of root mean squared error (RMSE). The scores will be calculated as follows
 - i. $RSME < 12 = 3$ points
 - ii. $RSME < 8 = 4$ points
 - iii. $RSME < 5 = 5$ points
 - iv. $RSME < 3 = 6$ points
 - v. $RSME < 2.5 = 7$ points

Note that you will not know your exact score for this question until the assignments are graded. However, you should be able to use the validation set to get a good estimate.