ASSIGNMENT 3
FEATURE ENGINEERING STUDIO
PROFESSOR RYAN S.J.d. BAKER
ITERATIVE FEATURE REFINEMENT
"KEEP RUNNING!"
DUE IN CLASS, MONDAY OCTOBER 14

The goal of this assignment is to iteratively refine some of the features you engineered in previous assignments. You can do this either by hand or using the Excel Equation Solver (try both!)

Step 1: Select three features you have created in previous assignments.

- These features should be "among the best" of the features you have previously created

Step 2: For each of these three features, iteratively refine them either by hand or using the Excel Equation Solver.

Step 2A: By hand

- Create at least five "close variants" of the feature
- "time for last 3 actions" and "time for last 4 actions" are "close variations"
- "time for last 3 actions" and "total time between help requests and next action" are two separate features, even though they both involve time
- As you create the close variants for each feature, don't just make them all at once
- Make a variant
- Test whether it's better than the previous variant (by goodness metric)
    - o If it is, keep going in the same direction
    - o If it isn't, try doing the opposite or something else

Step 2B: Excel Equation Solver

- Try different variants of the feature using the Excel Equation Solver
- Find out which variant best fits the predicted variable

Step 3: Write a report that discusses your process

- I took feature N
- I changed it from N to N*
- The goodness changed from G to G*
- Then I did…

Step 4: Email me your report and your excel sheet (as appropriate)