ReadMe

Objective is to create two files

1. Tidy data set of activity tracker measures (only mean and standard deviation measures) for each participant and activity being tracked.
2. A summarized version of #1 above with average values for each measure grouped by participant and activity.

Steps to follow to process the raw data set and get to tidy data sets

Initialize Section:
Step #1 First of all load all the dependent packages
Step #2 Set parent directory where data files reside as the working directory

Section 1: Read the parameter files first

Step #3 Read activity_tabels.txt file into actLabels. This will be used later for making the data more descriptive
Step #4 Read the features.txt file into feats. This will be used to make the column names descriptive

Section 2: Read the test data set (raw data)

Step #5 Set working directory to “test” folder where test data set resides
Step #6 Read participant ids via file subject_test.txt into Stest
Step #7 Rename the column to be descriptive
Step #8 Read the activity ids from Y_test into a temp data table
Step #9 Add the descriptive data by merging with the activity labels loaded from activity_labels.txt in section 1
Step #10 Rename the columns to be descriptive
Step #11 Read the test measures from file X_test.txt into Xtest
Step #12 Rename the columns in the data set to the descriptive column names read from features.txt in section 1
Step #13 Limit the data set to only columns related to mean and std measures
Step #14 Merge the subject ids, acticity id,label and the test data set via cbind
Step #15 Add the "Test." prefix to columns names to differentiate test data from train data

Section 3: Read the train data set (raw data)

Step #16: Set working directory to the “train” folder where train data set resides
Step #16: Read participant ids via file subject_train.txt file into Strain
Step #17 Rename the column to be descriptive
Step #18 Read the activity ids from train into a temp data table
Step #19 Add the descriptive data by merging with the activity labels loaded from activity_labels.txt in section 1
Step #20 Rename the columns to be descriptive
Step #21 Read the training measures from file X_train.txt into Xtrain
Step #22 Rename the columns in the data set to the descriptive column names read from features.txt in section 1
Step #23 Limit the data set to only columns related to mean and std measures
Step #24 Merge the subject ids, activity id,label and the train data set via cbind
Step #25 Add the "Train." prefix to columns names to differentiate test data from train data

Section 4 - Merge the test and train data sets

Step #26 Revert the current working directory to the starting point.
Step #27 Merge the train data set and the test data set to form the tidy data set
Step #28 Write the tidy data set into a csv file names “TidyDataSet.csv"

Section 5 - Create a summarized data set use the previous tidy data set to show average for all measures by participant and activity.

Step #29 Get the average of all cols by subject id, activity id and activity label
Step #30 Make the column names descriptive to reflect this data set is average of all columns
Step #31 Write the summarized tidy data set into a file TidyDataSetSummary.csv