ReadMe.md

run-analysis.R Objectives

* Create one R script called run\_analysis.R that does the following:

1. Merges the training and the test sets to create one data set.

2. Extracts only the measurements on the mean and standard deviation for each measurement.

3. Uses descriptive activity names to name the activities in the data set

4. Appropriately labels the data set with descriptive activity names.

5. Creates a second, independent tidy data set with the average of each variable for each activity and each subject.

The script operates under the assumption that it has in it's working directory the following files and folders:

* activity\_labels.txt
* features.txt
* test/
* train/

Script walkthrough:

- Read the test and training files. y\_test.txt, subject\_test.txt, and x\_test.txt

- Combine the files into a data frame

- Read the features from features.txt and filter the data to ensure it only leaves features that are either standard deviations (“std()”) or means (“mean()”). A new set of data is created from the results of this filter.

- Read activity labels from activity\_labels.txt. Replace the numbers with the text.

- Make column list - “subjects” and “label” at the start

- Tidy the list by reeling only the alphanumeric characters. Convert the result to lower case.

- Apply the column names to the data frame.

- Create a new data frame by finding the mean for each combination of subject and label

- The final result is tidy.txt