This code book provide description and explanation for run_analysis.R file base on the dataset UCI HAR Dataset

Variable description:

features: from features.txt. List of all features coming from come from the accelerometer and gyroscope 3-axial raw signals tAcc-XYZ and tGyro-XYZ.

x_test: from test/X_test.txt. Test set.

y_test: from test/y_test.txt. Test labels.

x_train: from train/X_train.txt. Training set.

y_train: from train/y_train.txt. Training labels.

subject_train: from train/subject_train.txt. Each row identifies the subject who performed the activity for each window sample. Its range is from 1 to 30.

subject_test: from test/subject_test.txt. Contains subject test data.

x_data: merged data sets from x_test and x_label

y_data: merged data labels from y_test and y_label

subject_data: merged data for subject training and test from subject_train and subject_test

merged_data: final merged data from x_data, y_data, and subject_data.

step2data: subset of merged-data after extracting only the measurements on the mean and standard deviation for each measurement.

activity_labels: from activity_labels.txt. Links the class labels with their activity name.

activity: rename for second column of activities variable in step2data.

Time: rename for ^t.

Frequency: rename for ^f

TimeBody: rename for tBody

Mean: rename for -mean()

StandardDeviation: rename for -std()

Frequency: rename for -freq()

Gyroscope: rename for Gyro

Body: rename for BodyBody

Magnitude: rename for Mag

group_data: step2data grouped by subject and activity variables

tidy_data: summarization of group_data with the average of each variable for each activity and each subject.

TidyData.txt is the data table exported from tidy_data.