Code Book

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This is an R Markdown document for Getting and Cleaning Data Course Project. The run_analysis.R does the following to get and clean data.

Download the original data

Unzip the data in the "UCI HAR Dataset" fold.

Read each file and name each column

use read.table for txt file

Combine test and train

use dplyr package

Extract the colname containing "mean" and "std"

extr_data contains 10299 rows, 88 columns.

Link the "code" in extr_date to "activities" in acti

change the variables in the column of "code". "1 = WALKING", "2 = WALKING_UPSTAIRS", "3 = WALKING_DOWNSTAIRS", "4 SITTING", "5 = STANDING", "6 = LAYING".

Rename the col names in extr_data

change the first letter "t" to "Time" change the first letter "f" to "Frenquency" change "Acc" to "Accelerometer" change "Gyro" to "Gyroscope" change "Mag" to "Magnitude" change "Freq" to "Frequency" change "tBody" to "TimeBody" use names() function to check the names.

Tidy data with the average of each variable for each activity and each subject. Write the tidy_data to TidyData.txt file

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.