

# Code Book

MP

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## **run\_analisys.R**

This R script transform raw data into tidy data according course instructions. Original data (raw data) comes from <https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip> links

Tiding data process:

1. Merges the training and the test sets (3 test and 3 sets files) 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 Appropriately labels the data set with descriptive variable names.
4. From the data set in step 4, creates a second, independent tidy data set with the average of each variable for each activity and each subject.

## **tidy\_data.txt**

### **variables**

Variables name like in original (raw data) code book except:

1. String “()” was removed from variable name.
2. variables startet from “t” (for example tBodyAcc-mean-X ) were change to “time” (timeBodyAcc-mean-X)
3. variables startet from “f” (for example fBodyAcc-mean-Y) were change to “frequency” (frequencyBodyAcc-mean-Y)

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[1] "subject" "activity"
[3] "timeBodyAcc-mean-X" "timeBodyAcc-mean-Y"
[5] "timeBodyAcc-mean-Z" "timeBodyAcc-std-X"
[7] "timeBodyAcc-std-Y" "timeBodyAcc-std-Z"
[9] "timeGravityAcc-mean-X" "timeGravityAcc-mean-Y"
[11] "timeGravityAcc-mean-Z" "timeGravityAcc-std-X"
[13] "timeGravityAcc-std-Y" "timeGravityAcc-std-Z"
[15] "timeBodyAccJerk-mean-X" "timeBodyAccJerk-mean-Y"
[17] "timeBodyAccJerk-mean-Z" "timeBodyAccJerk-std-X"
[19] "timeBodyAccJerk-std-Y" "timeBodyAccJerk-std-Z"
[21] "timeBodyGyro-mean-X" "timeBodyGyro-mean-Y"
[23] "timeBodyGyro-mean-Z" "timeBodyGyro-std-X"
[25] "timeBodyGyro-std-Y" "timeBodyGyro-std-Z"
[27] "timeBodyGyroJerk-mean-X" "timeBodyGyroJerk-mean-Y"
[29] "timeBodyGyroJerk-mean-Z" "timeBodyGyroJerk-std-X"
[31] "timeBodyGyroJerk-std-Y" "timeBodyGyroJerk-std-Z"
[33] "timeBodyAccMag-mean" "timeBodyAccMag-std"
[35] "timeGravityAccMag-mean" "timeGravityAccMag-std"
[37] "timeBodyAccJerkMag-mean" "timeBodyAccJerkMag-std"
```

[39] "timeBodyGyroMag-mean" "timeBodyGyroMag-std"  
 [41] "timeBodyGyroJerkMag-mean" "timeBodyGyroJerkMag-std"  
 [43] "frequencyBodyAcc-mean-X" "frequencyBodyAcc-mean-Y"  
 [45] "frequencyBodyAcc-mean-Z" "frequencyBodyAcc-std-X"  
 [47] "frequencyBodyAcc-std-Y" "frequencyBodyAcc-std-Z"  
 [49] "frequencyBodyAcc-meanFreq-X" "frequencyBodyAcc-meanFreq-Y"  
 [51] "frequencyBodyAcc-meanFreq-Z" "frequencyBodyAccJerk-mean-X"  
 [53] "frequencyBodyAccJerk-mean-Y" "frequencyBodyAccJerk-mean-Z"  
 [55] "frequencyBodyAccJerk-std-X" "frequencyBodyAccJerk-std-Y"  
 [57] "frequencyBodyAccJerk-std-Z" "frequencyBodyAccJerk-meanFreq-X"  
 [59] "frequencyBodyAccJerk-meanFreq-Y" "frequencyBodyAccJerk-meanFreq-Z"  
 [61] "frequencyBodyGyro-mean-X" "frequencyBodyGyro-mean-Y"  
 [63] "frequencyBodyGyro-mean-Z" "frequencyBodyGyro-std-X"  
 [65] "frequencyBodyGyro-std-Y" "frequencyBodyGyro-std-Z"  
 [67] "frequencyBodyGyro-meanFreq-X" "frequencyBodyGyro-meanFreq-Y"  
 [69] "frequencyBodyGyro-meanFreq-Z" "frequencyBodyAccMag-mean"  
 [71] "frequencyBodyAccMag-std" "frequencyBodyAccMag-meanFreq"  
 [73] "frequencyBodyBodyAccJerkMag-mean" "frequencyBodyBodyAccJerkMag-std"  
 [75] "frequencyBodyBodyAccJerkMag-meanFreq" "frequencyBodyBodyGyroMag-mean"  
 [77] "frequencyBodyBodyGyroMag-std" "frequencyBodyBodyGyroMag-meanFreq"  
 [79] "frequencyBodyBodyGyroJerkMag-mean" "frequencyBodyBodyGyroJerkMag-std"  
 [81] "frequencyBodyBodyGyroJerkMag-meanFreq"