

Getting and Cleaning Data - Course Project

Transformations

The original data was transformed by

1. Creating meaningful column names.
2. Merging subject, activity, train and test data sets.
3. Creating a subset of data with subject activity and mean or standard deviation of measurements.
4. Using descriptive activity names to name the activities in the data set and labeling the data set with descriptive variable names.
5. Creating an independent tidy data set that consists of the average of each variable for each activity and each subject.

Descriptions

Identifiers

The first two columns subject and activity are identifiers.

- subject - ID of the subject
- activity - name of the activity performed by the subject when measurements were taken

Measurements

- tBodyAccMeanX
- tBodyAccMeanY
- tBodyAccMeanZ
- tBodyAccStdX
- tBodyAccStdY
- tBodyAccStdZ
- tGravityAccMeanX
- tGravityAccMeanY
- tGravityAccMeanZ
- tGravityAccStdX
- tGravityAccStdY
- tGravityAccStdZ
- tBodyAccJerkMeanX
- tBodyAccJerkMeanY
- tBodyAccJerkMeanZ
- tBodyAccJerkStdX
- tBodyAccJerkStdY
- tBodyAccJerkStdZ
- tBodyGyroMeanX
- tBodyGyroMeanY
- tBodyGyroMeanZ
- tBodyGyroStdX
- tBodyGyroStdY
- tBodyGyroStdZ
- tBodyGyroJerkMeanX

- tBodyGyroJerkMeanY
- tBodyGyroJerkMeanZ
- tBodyGyroJerkStdX
- tBodyGyroJerkStdY
- tBodyGyroJerkStdZ
- tBodyAccMagMean
- tBodyAccMagStd
- tGravityAccMagMean
- tGravityAccMagStd
- tBodyAccJerkMagMean
- tBodyAccJerkMagStd
- tBodyGyroMagMean
- tBodyGyroMagStd
- tBodyGyroJerkMagMean
- tBodyGyroJerkMagStd
- fBodyAccMeanX
- fBodyAccMeanY
- fBodyAccMeanZ
- fBodyAccStdX
- fBodyAccStdY
- fBodyAccStdZ
- fBodyAccMeanFreqX
- fBodyAccMeanFreqY
- fBodyAccMeanFreqZ
- fBodyAccJerkMeanX
- fBodyAccJerkMeanY
- fBodyAccJerkMeanZ
- fBodyAccJerkStdX
- fBodyAccJerkStdY
- fBodyAccJerkStdZ
- fBodyAccJerkMeanFreqX
- fBodyAccJerkMeanFreqY
- fBodyAccJerkMeanFreqZ
- fBodyGyroMeanX
- fBodyGyroMeanY
- fBodyGyroMeanZ
- fBodyGyroStdX
- fBodyGyroStdY
- fBodyGyroStdZ
- fBodyGyroMeanFreqX
- fBodyGyroMeanFreqY
- fBodyGyroMeanFreqZ
- fBodyAccMagMean
- fBodyAccMagStd
- fBodyAccMagMeanFreq
- fBodyBodyAccJerkMagMean
- fBodyBodyAccJerkMagStd
- fBodyBodyAccJerkMagMeanFreq
- fBodyBodyGyroMagMean
- fBodyBodyGyroMagStd
- fBodyBodyGyroMagMeanFreq
- fBodyBodyGyroJerkMagMean
- fBodyBodyGyroJerkMagStd
- fBodyBodyGyroJerkMagMeanFreq

Activity Labels - what subjects were doing during the test

- WALKING - subject was walking
- WALKING_UPSTAIRS - subject was walking up a staircase
- WALKING_DOWNSTAIRS - subject was walking down a staircase
- SITTING - subject was sitting
- STANDING - subject was standing
- LAYING - subject was laying down