Code Book or Data Dictionary for "Getting and Cleaning Data"
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Overview of Data Set:

➢ The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years.
➢ Each person performed six activities wearing a smartphone (Samsung Galaxy S II) on the waist.
➢ Using its embedded accelerometer and gyroscope,3-axial linear acceleration and 3-axial angular velocity at a constant rate of 50Hz were captured.
➢ The sensor signals (accelerometer and gyroscope) were pre-processed by applying noise filters and then sampled in fixed-width sliding windows of 2.56 sec and 50% overlap (128 readings/window).
➢ The sensor acceleration signal, which has gravitational and body motion components, was separated using a Butterworth low-pass filter into body acceleration and gravity.
➢ The gravitational force is assumed to have only low frequency components; therefore a filter with 0.3 Hz cutoff frequency was used.

Data Attributes:
Though the attributes / observations are recorded separately for documentation purposes the 3 axis are grouped together

Attribute / Column	Description
Subject	Subject / Volunteer whose measurements are recorded in the data set. To maintain anonymity the values here are ID numbers
Activity	Activity, the subject was performing at the time of measurement WALKING WALKING_UPSTAIRS WALKING_DOWNSTAIRS SITTING STANDING LAYING
tBodyAccdX tBodyAccMeanY tBodyAccMeanZ	Means for 3 separate Mean measurements of Body Acceleration along X, Y and Z axis
tBodyAccStdX tBodyAccStdY tBodyAccStdZ	Means for 3 separate Standard Deviation measurements of Body Acceleration along X, Y and Z axis
tGravityAccMeanX tGravityAccMeanY tGravityAccMeanZ	Means for 3 separate Mean measurements of Gravity Acceleration along X, Y and Z axis
tGravityAccStdX tGravityAccStdY tGravityAccStdZ	Means for 3 separate Standard Deviation measurements of Gravity Acceleration along X, Y and Z axis

tBodyAccJerkMeanX tBodyAccJerkMeanY tBodyAccJerkMeanZ	Means for 3 separate Mean measurements of Body Acceleration Jerk along X, Y and Z axis
tBodyAccJerkStdX tBodyAccJerkStdY tBodyAccJerkStdZ	Means for 3 separate Standard Deviation measurements of Body Acceleration Jerk along X, Y and Z axis
tBodyGyroMeanX tBodyGyroMeanY tBodyGyroMeanZ	Means for 3 separate Mean measurements of Body Gyro along X, Y and Z axis
tBodyGyroStdX tBodyGyroStdY tBodyGyroStdZ	Means for 3 separate Standard Deviation measurements of Body Gyro along X, Y and Z axis
tBodyGyroJerkMeanX tBodyGyroJerkMeanY tBodyGyroJerkMeanZ	Means for 3 separate Mean measurements of Gyro Jerk along X, Y and Z axis
tBodyGyroJerkStdX tBodyGyroJerkStdY tBodyGyroJerkStdZ	Means for 3 separate Standard Deviation measurements of Gyro Jerk along X, Y and Z axis
tBodyAccMagMean tBodyAccMagStd	This is where a sample explanation for this column or attribute would be entered
tGravityAccMagMean tGravityAccMagStd	This is where a sample explanation for this column or attribute would be entered
tBodyAccJerkMagMean tBodyAccJerkMagStd	This is where a sample explanation for this column or attribute would be entered
tBodyGyroMagMean tBodyGyroMagStd	This is where a sample explanation for this column or attribute would be entered
tBodyGyroJerkMagMean tBodyGyroJerkMagStd	This is where a sample explanation for this column or attribute would be entered
fBodyAccMeanX fBodyAccMeanY fBodyAccMeanZ	This is where a sample explanation for this column or attribute would be entered
fBodyAccStdX fBodyAccStdY fBodyAccStdZ	This is where a sample explanation for this column or attribute would be entered
fBodyAccMeanFreqX fBodyAccMeanFreqY fBodyAccMeanFreqZ	This is where a sample explanation for this column or attribute would be entered

fBodyAccJerkMeanX fBodyAccJerkMeanY fBodyAccJerkMeanZ	This is where a sample explanation for this column or attribute would be entered
fBodyAccJerkStdX fBodyAccJerkStdY fBodyAccJerkStdZ	This is where a sample explanation for this column or attribute would be entered
fBodyAccJerkMeanFreqX fBodyAccJerkMeanFreqY fBodyAccJerkMeanFreqZ	This is where a sample explanation for this column or attribute would be entered
fBodyGyroMeanX fBodyGyroMeanY fBodyGyroMeanZ	This is where a sample explanation for this column or attribute would be entered
fBodyGyroStdX fBodyGyroStdY fBodyGyroStdZ	This is where a sample explanation for this column or attribute would be entered
fBodyGyroMeanFreqX fBodyGyroMeanFreqY fBodyGyroMeanFreqZ	This is where a sample explanation for this column or attribute would be entered
fBodyAccMagMean fBodyAccMagStd	This is where a sample explanation for this column or attribute would be entered
fBodyAccMagMeanFreq	This is where a sample explanation for this column or attribute would be entered
fBodyBodyAccJerkMagMean fBodyBodyAccJerkMagStd	This is where a sample explanation for this column or attribute would be entered
fBodyBodyAccJerkMagMeanFreq	This is where a sample explanation for this column or attribute would be entered
fBodyBodyGyroMagMean fBodyBodyGyroMagStd	This is where a sample explanation for this column or attribute would be entered
fBodyBodyGyroMagMeanFreq	This is where a sample explanation for this column or attribute would be entered
fBodyBodyGyroJerkMagMean fBodyBodyGyroJerkMagStd	This is where a sample explanation for this column or attribute would be entered
fBodyBodyGyroJerkMagMeanFreq	This is where a sample explanation for this column or attribute would be entered