Codebook for Getting and Cleaning Data Course Project

Ketaki Kulkarni

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DATA DICTIONARY - TIDY DATASET GENRATED AS PART OF THE COURSE PROJECT

subject int 1...30 - Unique identifier for each subject(volunteer)of the study

activity.label Factor w/ 6 levels "LAYING","SITTING"," STANDING"," WALKING","WALKING DOWNSTAIRS","WALKING UPSTAIRS"

All of the following variables are either mean or std. deviation values of the various measures as listed in the features.txt. Assumption: variable names ending in -mean or -std are considered for aggregation and filtering for the tidy data.

Following six measurements denote the mean and std deviation of the body acceleration signal obtained by subtracting the gravity from the total acceleration. X, Y, and Z denote the measurements along the three axes

Prefix 't' denotes time domain signals captured at a constant rate of 50Hz

- tBodyAcc-mean()-X
- tBodyAcc-mean()-Y
- tBodyAcc-mean()-Z
- tBodyAcc-std()-X
- tBodyAcc-std()-Y
- tBodyAcc-std()-Z

Following six measurements denote the mean and std deviation of the gravity acceleration signal. X, Y, and Z denote the measurements along the three axes.

Prefix 't' denotes time domain signals captured at a constant rate of 50Hz

- tGravityAcc-mean()-X
- tGravityAcc-mean()-Y
- tGravityAcc-mean()-Z

- tGravityAcc-std()-X
- tGravityAcc-std()-Y
- tGravityAcc-std()-Z

Following six measurements denote the mean and std deviation of the jerk signal using linear accleration. X, Y, and Z denote the measurements along the three axes.

Prefix 't' denotes time domain signals captured at a constant rate of 50Hz

- tBodyAccJerk-mean()-X
- tBodyAccJerk-mean()-Y
- tBodyAccJerk-mean()-Z
- tBodyAccJerk-std()-X
- tBodyAccJerk-std()-Y
- tBodyAccJerk-std()-Z

Following six measurements denote the mean and std deviation of the jerk signal using linear accleration. X, Y, and Z denote the measurements along the three axes.

Prefix 't' denotes time domain signals captured at a constant rate of 50Hz

- tBodyGyro-mean()-X
- tBodyGyro-mean()-Y
- tBodyGyro-mean()-Z
- tBodyGyro-std()-X
- tBodyGyro-std()-Y
- tBodyGyro-std()-Z

Following six measurements denote the mean and std deviation of the jerk signal using angular velocity. X, Y, and Z denote the measurements along the three axes.

Prefix 't' denotes time domain signals captured at a constant rate of 50Hz

- tBodyGyroJerk-mean()-X
- tBodyGyroJerk-mean()-Y

- tBodyGyroJerk-mean()-Z
- tBodyGyroJerk-std()-X
- tBodyGyroJerk-std()-Y
- tBodyGyroJerk-std()-Z

Following denote the mean and std deviation of the magnitude of the above three-dimensional signals calculated using the Euclidean norm.

- tBodyAccMag-mean()
- tBodyAccMag-std()
- tGravityAccMag-mean()
- tGravityAccMag-std()
- tBodyAccJerkMag-mean()
- tBodyAccJerkMag-std()
- tBodyGyroMag-mean()
- tBodyGyroMag-std()
- tBodyGyroJerkMag-mean()
- tBodyGyroJerkMag-std()

Following measurements denote the mean and std deviation of the body acceleration signal obtained by subtracting the gravity from the total acceleration. X, Y, and Z denote the measurements along the three axes

Prefix 'f' denotes frequency domain signals.

- fBodyAcc-mean()-X
- fBodyAcc-mean()-Y
- fBodyAcc-mean()-Z
- fBodyAcc-std()-X
- fBodyAcc-std()-Y
- fBodyAcc-std()-Z
- fBodyAcc-meanFreq()-X

- fBodyAcc-meanFreq()-Y
- fBodyAcc-meanFreq()-Z

Following measurements denote the mean and std deviation of the jerk signal using linear accleration. X, Y, and Z denote the measurements along the three axes.

Prefix 'f' denotes frequency domain signals.

- fBodyAccJerk-mean()-X
- fBodyAccJerk-mean()-Y
- fBodyAccJerk-mean()-Z
- fBodyAccJerk-std()-X
- fBodyAccJerk-std()-Y
- fBodyAccJerk-std()-Z
- fBodyAccJerk-meanFreq()-X
- fBodyAccJerk-meanFreq()-Y
- fBodyAccJerk-meanFreq()-Z

Following measurements denote the mean and std deviation of the angular velocity. X, Y, and Z denote the measurements along the three axes.

Prefix 'f' denotes frequency domain signals.

- fBodyGyro-mean()-X
- fBodyGyro-mean()-Y
- fBodyGyro-mean()-Z
- fBodyGyro-std()-X
- fBodyGyro-std()-Y
- fBodyGyro-std()-Z
- fBodyGyro-meanFreq()-X
- fBodyGyro-meanFreq()-Y
- fBodyGyro-meanFreq()-Z

Following denote the mean and std deviation of the magnitude of the above three-dimensional signals (frequency domain) calculated using the Euclidean norm.

- fBodyAccMag-mean()
- fBodyAccMag-std()
- fBodyAccMag-meanFreq()
- fBodyBodyAccJerkMag-mean()
- fBodyBodyAccJerkMag-std()
- fBodyBodyAccJerkMag-meanFreq()
- fBodyBodyGyroMag-mean()
- fBodyBodyGyroMag-std()
- fBodyBodyGyroMag-meanFreq()
- fBodyBodyGyroJerkMag-mean()
- fBodyBodyGyroJerkMag-std()
- fBodyBodyGyroJerkMag-meanFreq()