

## Code Book – tidy Samsung Dataset

subject	2	Identity of the subject who performed the activity for each window sample. Its range is from 1 to 30.
activityLabel	18	Type of activity performed by each subject Walking Walking_Upstairs Walking_Downstairs Sitting Standing Laying
feature	20	Vector of features from the accelerometer and gyroscope 3-axial raw signals denoted by tAcc-XYZ and tGyro-XYZ.  The acceleration signal was then separated into body and gravity acceleration signals (tBodyAcc-XYZ and tGravityAcc-XYZ) Time domain signals have prefix ‘t’ to denote time. The body linear acceleration and angular velocity were derived in time to obtain Jerk signals (tBodyAccJerk-XYZ and tBodyGyroJerk-XYZ). The magnitude of these three-dimensional signals were calculated using the Euclidean norm (tBodyAccMag, tGravityAccMag, tBodyAccJerkMag, tBodyGyroMag, tBodyGyroJerkMag). Frequency domain signals have prefix ‘f’ to denote frequency. fBodyAcc-X .Frequency body accelerometer signal in X-direction fBodyAcc-Y .Frequency body accelerometer signal in Y-direction fBodyAcc-Z .Frequency body accelerometer signal in Z-direction fBodyAccJerk-X .Frequency body accelerometer Jerk in X-direction fBodyAccJerk-Y .Frequency body accelerometer Jerk in Y-direction fBodyAccJerk-Z .Frequency body accelerometer Jerk in Z-direction fBodyAccMag .Frequency body accelerometer magnitude fBodyBodyAccJerkMag .Frequency body accelerometer jerk signal magnitude fBodyBodyGyroJerkMag .Frequency body gyroscope jerk signal magnitude fBodyBodyGyroMag .Frequency body gyroscope magnitude fBodyGyro-X .Frequency body gyroscope signal in X-direction fBodyGyro-Y .Frequency body gyroscope signal in Y-direction fBodyGyro-Z .Frequency body gyroscope signal in Z-direction tBodyAcc-X .Time body accelerometer signal in X-direction tBodyAcc-Y .Time body accelerometer signal in Y-direction tBodyAcc-Z .Time body accelerometer signal in Z-direction

tBodyAccJerk-X .Time body accelerometer jerk signal in X-direction  
 tBodyAccJerk-Y .Time body accelerometer jerk signal in Y-direction  
 tBodyAccJerk-Z .Time body accelerometer jerk signal in Z-direction  
 tBodyAccJerkMag .Time body accelerometer jerk signal magnitude  
 tBodyAccMag .Time body accelerometer signal magnitude  
 tBodyGyro-X .Time body gyroscope signal in X-direction  
 tBodyGyro-Y .Time body gyroscope signal in Y-direction  
 tBodyGyro-Z .Time body gyroscope signal in Z-direction  
 tBodyGyroJerk-X .Time body gyroscope jerk signal in X-direction  
 tBodyGyroJerk-Y .Time body gyroscope jerk signal in Y-direction  
 tBodyGyroJerk-Z .Time body gyroscope jerk signal in Z-direction  
 tBodyGyroJerkMag .Time body gyroscope jerk signal magnitude  
 tBodyGyroMag .Time body gyroscope signal magnitude  
 tGravityAcc-X .Time gravity accelerometer signal in X-direction  
 tGravityAcc-Y .Time gravity accelerometer signal in Y-direction  
 tGravityAcc-Z .Time gravity accelerometer signal in Z-direction  
 tGravityAccMag .Time gravity accelerometer signal magnitude

avgMean 20

Numeric vector with the average of the mean value estimate for each feature averaging over each observation for each activity

avgStd 20

Numeric vector with the average of the standard deviation value estimate for each feature averaging over each observation for each activity