**Tidy data set codebook**

**Overall:**

The tidydata data set contains 180 rows and 82 columns. The first column is activity id, second column is activity name, and third column is subject id. The rest of 79 columns are either mean or standard derivation which has been averaged for each subject and each activity.

**The tidydata contains data from 79 measurements, the name of those variables are listed below.**

* 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 ID and it relative name is listed below:**

1.        WALKING

2.        WALKING\_UPSTAIRS

3.        WALKING\_DOWNSTAIRS

4.        SITTING

5.        STANDING

6.        LAYING

**Units:** All the features have been normalized and has a boundary within [-1,1].