This codebook explains the variables in the data set “data_final.txt”

All of the variables in the data set are as follows:

"subject" "activity" "tBodyAcc-mean()-X" "tBodyAcc-mean()-Y" "tBodyAcc-mean()-Z" "tBodyAcc-std()-X" "tBodyAcc-std()-Y" "tBodyAcc-std()-Z" "tGravityAcc-mean()-X" "tGravityAcc-mean()-Y" "tGravityAcc-mean()-Z" "tGravityAcc-std()-X" "tGravityAcc-std()-Y" "tGravityAcc-std()-Z" "tBodyAccJerk-mean()-X" "tBodyAccJerk-mean()-Y" "tBodyAccJerk-mean()-Z" "tBodyAccJerk-std()-X" "tBodyAccJerk-std()-Y" "tBodyAccJerk-std()-Z" "tBodyGyro-mean()-X" "tBodyGyro-mean()-Y" "tBodyGyro-mean()-Z" "tBodyGyro-std()-X" "tBodyGyro-std()-Y" "tBodyGyro-std()-Z" "tBodyGyroJerk-mean()-X" "tBodyGyroJerk-mean()-Y" "tBodyGyroJerk-mean()-Z" "tBodyGyroJerk-std()-X" "tBodyGyroJerk-std()-Y" "tBodyGyroJerk-std()-Z" "tBodyAccMag-mean()" "tBodyAccMag-std()" "tGravityAccMag-mean()" "tGravityAccMag-std()" "tBodyAccJerkMag-mean()" "tBodyAccJerkMag-std()" "tBodyGyroMag-mean()" "tBodyGyroMag-std()" "tBodyGyroJerkMag-mean()" "tBodyGyroJerkMag-std()" "fBodyAcc-mean()-X" "fBodyAcc-mean()-Y" "fBodyAcc-mean()-Z" "fBodyAcc-std()-X" "fBodyAcc-std()-Y" "fBodyAcc-std()-Z" "fBodyAccJerk-mean()-X" "fBodyAccJerk-mean()-Y" "fBodyAccJerk-mean()-Z" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-Y" "fBodyAccJerk-std()-Z" "fBodyGyro-mean()-X" "fBodyGyro-mean()-Y" "fBodyGyro-mean()-Z" "fBodyGyro-std()-X" "fBodyGyro-std()-Y" "fBodyGyro-std()-Z" "fBodyAccMag-mean()" "fBodyAccMag-std()" "fBodyBodyAccJerkMag-mean()" "fBodyBodyAccJerkMag-std()" "fBodyBodyGyroMag-mean()" "fBodyBodyGyroMag-std()" "fBodyBodyGyroJerkMag-mean()" "fBodyBodyGyroJerkMag-std()"

The first two variables are the subject ID and the activity that the subject are performing using the smartphone. Subject ID are between 1-30 for different subject. Activities are of 6 activities and are strings.

The names of the other 66 variables are structured as “feature-measurement-dimension”, they are all normalized so there are no unit.

- The “feature” takes values of

tBodyAcc

tGravityAcc

tBodyAccJerk

tBodyGyro

tBodyGyroJerk

tBodyAccMag

tGravityAccMag

tBodyAccJerkMag

tBodyGyroMag

tBodyGyroJerkMag

fBodyAcc

fBodyAccJerk

fBodyGyro-XYZ

fBodyAccMag

fBodyAccJerkMag

fBodyGyroMag

fBodyGyroJerkMag

giving different features of the activities.

- The measurement takes value of “mean()” or “std()” indicating the mean or the standard deviation of the features for each subject and each activity
- The dimension take value “X”, “Y” or “Z” for each dimension