The data set in file “mean\_activity\_subject.txt” contains the mean values of each of the signals described in the table below, for each activity and each subject.

The original data was divided into a training data set with information of the 70% of the subjects and a test data set with information of the 30% of the subjects.

The following were the steps to get this summarizing data set:

1. Merged the training and the test sets to create one data set.

2. Extracted only the measurements on the mean and standard deviation for each measurement.

3. Used descriptive activity names to name the activities in the data set

4. Appropriately labeled the data set with descriptive variable names.

5. From the data set in step 4, created a second, independent tidy data set with the average of each variable for each activity and each subject.

Variable name

Class

Variable meaning

activity

chr

Activity performed by the subject. There are 6 activities: WALKING, WALKING\_UPSTAIRS, WALKING\_DOWNSTAIRS, SITTING, STANDING, LAYING

subject

int

Number of the subject. There are 30 subjects

tbodyaccmeanx

num

Mean of body acceleration signal in the x direction in the time domain

tbodyaccmeany

num

Mean of body acceleration signal in the y direction in the time domain

tbodyaccmeanz

num

Mean of body acceleration signal in the z direction in the time domain

tbodyaccstdx

num

Standard deviation of body acceleration signal in the x direction in the time domain

tbodyaccstdy

num

Standard deviation of body acceleration signal in the y direction in the time domain

tbodyaccstdz

num

Standard deviation of body acceleration signal in the z direction in the time domain

tgravityaccmeanx

num

Mean of gravity acceleration signal in the x direction in the time domain

tgravityaccmeany

num

Mean of gravity acceleration signal in the y direction in the time domain

tgravityaccmeanz

num

Mean of gravity acceleration signal in the z direction in the time domain

tgravityaccstdx

num

Standard deviation of gravity acceleration signal in the x direction in the time domain

tgravityaccstdy

num

Standard deviation of gravity acceleration signal in the y direction in the time domain

tgravityaccstdz

num

Standard deviation of gravity acceleration signal in the z direction in the time domain

tbodyaccjerkmeanx

num

Mean of body acceleration Jerk signal in the x direction in the time domain

tbodyaccjerkmeany

num

Mean of body acceleration Jerk signal in the y direction in the time domain

tbodyaccjerkmeanz

num

Mean of body acceleration Jerk signal in the z direction in the time domain

tbodyaccjerkstdx

num

Standard deviation of body acceleration Jerk signal in the x direction in the time domain

tbodyaccjerkstdy

num

Standard deviation of body acceleration Jerk signal in the x direction in the time domain

tbodyaccjerkstdz

num

Standard deviation of body acceleration Jerk signal in the x direction in the time domain

tbodygyromeanx

num

Mean of body gyro signal in the x direction in the time domain

tbodygyromeany

num

Mean of body gyro signal in the y direction in the time domain

tbodygyromeanz

num

Mean of body gyro signal in the z direction in the time domain

tbodygyrostdx

num

Standard deviation of body gyro signal in the x direction in the time domain

tbodygyrostdy

num

Standard deviation of body gyro signal in the x direction in the time domain

tbodygyrostdz

num

Standard deviation of body gyro signal in the x direction in the time domain

tbodygyrojerkmeanx

num

Mean of body gyro Jerk signal in the x direction in the time domain

tbodygyrojerkmeany

num

Mean of body gyro Jerk signal in the y direction in the time domain

tbodygyrojerkmeanz

num

Mean of body gyro Jerk signal in the z direction in the time domain

tbodygyrojerkstdx

num

Standard deviation of body gyro Jerk signal in the x direction in the time domain

tbodygyrojerkstdy

num

Standard deviation of body gyro Jerk signal in the y direction in the time domain

tbodygyrojerkstdz

num

Standard deviation of body gyro Jerk signal in the z direction in the time domain

tbodyaccmagmean

num

Mean of the magnitude of body acceleration signal in the time domain

tbodyaccmagstd

num

Standard deviation of the magnitude of body acceleration signal in the time domain

tgravityaccmagmean

num

Mean of the magnitude of gravity acceleration signal in the time domain

tgravityaccmagstd

num

Standard deviation of the magnitude of gravity acceleration signal in the time domain

tbodyaccjerkmagmean

num

Mean of the magnitude of body acceleration Jerk signal in the time domain

tbodyaccjerkmagstd

num

Standard deviation of the magnitude of body acceleration Jerk signal in the time domain

tbodygyromagmean

num

Mean of the magnitude of body gyro signal in the time domain

tbodygyromagstd

num

Standard deviation of the magnitude of body gyro signal in the time domain

tbodygyrojerkmagmean

num

Mean of the magnitude of body gyro Jerk signal in the time domain

tbodygyrojerkmagstd

num

Standard deviation of the magnitude of body gyro Jerk signal in the time domain

fbodyaccmeanx

num

Mean of body acceleration signal in the x direction in the frequency domain

fbodyaccmeany

num

Mean of body acceleration signal in the y direction in the frequency domain

fbodyaccmeanz

num

Mean of body acceleration signal in the z direction in the frequency domain

fbodyaccstdx

num

Standard deviation of body acceleration signal in the x direction in the frequency domain

fbodyaccstdy

num

Standard deviation of body acceleration signal in the y direction in the frequency domain

fbodyaccstdz

num

Standard deviation of body acceleration signal in the z direction in the frequency domain

fbodyaccjerkmeanx

num

Mean of body acceleration Jerk signal in the x direction in the frequency domain

fbodyaccjerkmeany

num

Mean of body acceleration Jerk signal in the y direction in the frequency domain

fbodyaccjerkmeanz

num

Mean of body acceleration Jerk signal in the z direction in the frequency domain

fbodyaccjerkstdx

num

Standard deviation of body acceleration Jerk signal in the x direction in the frequency domain

fbodyaccjerkstdy

num

Standard deviation of body acceleration Jerk signal in the x direction in the frequency domain

fbodyaccjerkstdz

num

Standard deviation of body acceleration Jerk signal in the x direction in the frequency domain

fbodygyromeanx

num

Mean of body gyro signal in the x direction in the frequency domain

fbodygyromeany

num

Mean of body gyro signal in the y direction in the frequency domain

fbodygyromeanz

num

Mean of body gyro signal in the z direction in the frequency domain

fbodygyrostdx

num

Standard deviation of body gyro signal in the x direction in the frequency domain

fbodygyrostdy

num

Standard deviation of body gyro signal in the x direction in the frequency domain

fbodygyrostdz

num

Standard deviation of body gyro signal in the x direction in the frequency domain

fbodyaccmagmean

num

Mean of the magnitude of body acceleration signal in the frequency domain

fbodyaccmagstd

num

Standard deviation of the magnitude of body acceleration signal in the frequency domain

fbodybodyaccjerkmagmean

num

Mean of the magnitude of body acceleration Jerk signal in the frequency domain

fbodybodyaccjerkmagstd

num

Standard deviation of the magnitude of body acceleration Jerk signal in the frequency domain

fbodybodygyromagmean

num

Mean of the magnitude of body gyro signal in the frequency domain

fbodybodygyromagstd

num

Standard deviation of the magnitude of body gyro signal in the frequency domain

fbodybodygyrojerkmagmean

num

Mean of the magnitude of body gyro Jerk signal in the frequency domain

fbodybodygyrojerkmagstd

num

Standard deviation of the magnitude of body gyro Jerk signal in the frequency domain