Activity Codebook

This document describes the data contained in 'GetAndCleanDataProject.txt', generated as part of the Project on 'Getting and Cleaning Data'. It contains averages of the mean & standard deviation measurements of the accelerometer and gyroscope signals from a Samsung Galaxy S phone. These signals were captured in a study performed with 30 subjects who performed various activities while wearing the phone on their hip. Details on the study can be found here, and the raw data can be found here.

The file has 180 rows with 68 columns that are tab-separated. The metrics start at column 3 and they are the averages of corresponding measurements, for each Subject and Activity.

#	Column Name	Data Type, Length	Description
1	Subject	Integer, 2	Unique identifier for each test subject that participated in the research, numbered from 1 to 30
2	Activity	Character, 20	Type of activity performed by the subjects; one of 6 values: WALKING WALKING_UPSTAIRS WALKING_DOWNSTAIRS SITTING STANDING LAYING
3	tBodyAcc.X.mean	Numeric	Average of the mean estimates of time domain signals from body acceleration, along the X-axis
4	tBodyAcc.Y.mean	Numeric	Average of the mean estimates of time domain signals from body acceleration, along the Y-axis
5	tBodyAcc.Z.mean	Numeric	Average of the mean estimates of time domain signals from body acceleration, along the Z-axis
6	tGravityAcc.X.mean	Numeric	Average of the mean estimates of time domain signals from gravity acceleration, along the X-axis
7	tGravityAcc.Y.mean	Numeric	Average of the mean estimates of time domain signals from gravity acceleration, along the Y-axis
8	tGravityAcc.Z.mean	Numeric	Average of the mean estimates of time domain signals from gravity acceleration, along the Z-axis
9	tBodyAccJerk.X.mean	Numeric	Average of the mean estimates of time domain signals from body jerk, along the X-axis
10	tBodyAccJerk.Y.mean	Numeric	Average of the mean estimates of time domain signals from body jerk, along the Y-axis
11	tBodyAccJerk.Z.mean	Numeric	Average of the mean estimates of time domain signals from body jerk, along the Z-axis

#	Column Name	Data Type, Length	Description
12	tBodyGyro.X.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the X-axis
13	tBodyGyro.Y.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the Y-axis
14	tBodyGyro.Z.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the Z-axis
15	tBodyGyroJerk.X.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the X-axis
16	tBodyGyroJerk.Y.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the Y-axis
17	tBodyGyroJerk.Z.mean	Numeric	Average of the mean estimates of time domain signals of the body from gyroscope, along the Z-axis
18	tBodyAccMag.mean	Numeric	Average of the mean estimates of magnitude of time domain signals from body acceleration
19	tGravityAccMag.mean	Numeric	Average of the mean estimates of magnitude of time domain signals from gravity acceleration
20	tBodyAccJerkMag.mean	Numeric	Average of the mean estimates of magnitude of time domain signals from body jerk
21	tBodyGyroMag.mean	Numeric	Average of the mean estimates of magnitude of time domain signals of the body from gyroscope
22	tBodyGyroJerkMag.mean	Numeric	Average of the mean estimates of magnitude of time domain signals of the body from gyroscope
23	fBodyAcc.X.mean	Numeric	Average of the mean estimates of frequency domain signals from body acceleration, along the X-axis
24	fBodyAcc.Y.mean	Numeric	Average of the mean estimates of frequency domain signals from body acceleration, along the Y-axis
25	fBodyAcc.Z.mean	Numeric	Average of the mean estimates of frequency domain signals from body acceleration, along the Z-axis
26	fBodyAccJerk.X.mean	Numeric	Average of the mean estimates of frequency domain signals from body jerk, along the X-axis
27	fBodyAccJerk.Y.mean	Numeric	Average of the mean estimates of frequency domain signals from body jerk, along the Y-axis

#	Column Name	Data Type, Length	Description
28	fBodyAccJerk.Z.mean	Numeric	Average of the mean estimates of frequency domain signals from body jerk, along the Z-axis
29	fBodyGyro.X.mean	Numeric	Average of the mean estimates of frequency domain signals of the body from gyroscope, along the X-axis
30	fBodyGyro.Y.mean	Numeric	Average of the mean estimates of frequency domain signals of the body from gyroscope, along the Y-axis
31	fBodyGyro.Z.mean	Numeric	Average of the mean estimates of frequency domain signals of the body from gyroscope, along the Z-axis
32	fBodyAccMag.mean	Numeric	Average of the mean estimates of magnitude of frequency domain signals from body acceleration
33	fBodyBodyAccJerkMag.mean	Numeric	Average of the mean estimates of magnitude of frequency domain signals from body jerk
34	fBodyBodyGyroMag.mean	Numeric	Average of the mean estimates of magnitude of frequency domain signals of the body from gyroscope
35	fBodyBodyGyroJerkMag.mean	Numeric	Average of the mean estimates of magnitude of frequency domain signals of the body from gyroscope
36	tBodyAcc.X.std	Numeric	Average of the standard deviation estimates of time domain signals from body acceleration, along the X-axis
37	tBodyAcc.Y.std	Numeric	Average of the standard deviation estimates of time domain signals from body acceleration, along the Y-axis
38	tBodyAcc.Z.std	Numeric	Average of the standard deviation estimates of time domain signals from body acceleration, along the Z-axis
39	tGravityAcc.X.std	Numeric	Average of the standard deviation estimates of time domain signals from gravity acceleration, along the X-axis
40	tGravityAcc.Y.std	Numeric	Average of the standard deviation estimates of time domain signals from gravity acceleration, along the Y-axis
41	tGravityAcc.Z.std	Numeric	Average of the standard deviation estimates of time domain signals from gravity acceleration, along the Z-axis

#	Column Name	Data Type, Length	Description
42	tBodyAccJerk.X.std	Numeric	Average of the standard deviation estimates of time domain signals from body jerk, along the X-axis
43	tBodyAccJerk.Y.std	Numeric	Average of the standard deviation estimates of time domain signals from body jerk, along the Y-axis
44	tBodyAccJerk.Z.std	Numeric	Average of the standard deviation estimates of time domain signals from body jerk, along the Z-axis
45	tBodyGyro.X.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the X-axis
46	tBodyGyro.Y.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the Y-axis
47	tBodyGyro.Z.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the Z-axis
48	tBodyGyroJerk.X.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the X-axis
49	tBodyGyroJerk.Y.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the Y-axis
50	tBodyGyroJerk.Z.std	Numeric	Average of the standard deviation estimates of time domain signals of the body from gyroscope, along the Z-axis
51	tBodyAccMag.std	Numeric	Average of the standard deviation estimates of magnitude of time domain signals from body acceleration
52	tGravityAccMag.std	Numeric	Average of the standard deviation estimates of magnitude of time domain signals from gravity acceleration
53	tBodyAccJerkMag.std	Numeric	Average of the standard deviation estimates of magnitude of time domain signals from body jerk
54	tBodyGyroMag.std	Numeric	Average of the standard deviation estimates of magnitude of time domain signals of the body from gyroscope
55	tBodyGyroJerkMag.std	Numeric	Average of the standard deviation estimates of magnitude of time domain signals of the body from gyroscope

#	Column Name	Data Type, Length	Description
56	fBodyAcc.X.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body acceleration, along the X-axis
57	fBodyAcc.Y.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body acceleration, along the Y-axis
58	fBodyAcc.Z.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body acceleration, along the Z-axis
59	fBodyAccJerk.X.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body jerk, along the X-axis
60	fBodyAccJerk.Y.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body jerk, along the Y-axis
61	fBodyAccJerk.Z.std	Numeric	Average of the standard deviation estimates of frequency domain signals from body jerk, along the Z-axis
62	fBodyGyro.X.std	Numeric	Average of the standard deviation estimates of frequency domain signals of the body from gyroscope, along the X-axis
63	fBodyGyro.Y.std	Numeric	Average of the standard deviation estimates of frequency domain signals of the body from gyroscope, along the Y-axis
64	fBodyGyro.Z.std	Numeric	Average of the standard deviation estimates of frequency domain signals of the body from gyroscope, along the Z-axis
65	fBodyAccMag.std	Numeric	Average of the standard deviation estimates of magnitude of frequency domain signals from body acceleration
66	fBodyBodyAccJerkMag.std	Numeric	Average of the standard deviation estimates of magnitude of frequency domain signals from body jerk
67	fBodyBodyGyroMag.std	Numeric	Average of the standard deviation estimates of magnitude of frequency domain signals of the body from gyroscope
68	fBodyBodyGyroJerkMag.std	Numeric	Average of the standard deviation estimates of magnitude of frequency domain signals of the body from gyroscope