

CodeBook_UCI_HAR

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Human Activity Recognition By Means Of Smartphone Data Generation

This repo contains one way of tidying the data produced by Smartlab (Universtiá degli Studi di Genova, Italy) and Technical Research Centre for Dependency Care and Autonomous living (Universitat Politécnica de Catalunya, Spain), with regards to their experiment in which a set of 30 individuals with ages ranging from 19 to 48 years, performed a routine of six activities comprising: walking, walking upstairs, walking downstairs, sitting, standing, and laying, in order to collect data from a Samsung Galaxy SII smartphone's embedded accelerometer and gyroscope.

Raw Data

The description of the raw data is as follows. Linear acceleration and angular velocity in 3 axes data were gathered and processed to obtain two datasets - 30% sample or test as they call it, and 70% training that constitute the `x_test` and `x_train` files respectively. Along with these there are two files with the labels of the six activities previously listed per observation and two other files with the subject id number also per observation, additionally one file with the 561 variables found in the feature vector that describe multiple aspects of the activity recognition namely:

- Signals used to estimate variables
 - time and frequency of body acceleration, in axes x, y, and z
 - time and frequency of gravity acceleration, in axes x, y, and z
 - time and frequency of body acceleration jerk, in axes x, y, and z
 - time and frequency of body angular velocity (gyroscope), in axes x, y, and z
 - time and frequency of body angular velocity jerk (gyroscopicope) in axes x, y, and z
 - time and frequency of body acceleration magnitude
 - time and frequency of gravity acceleration magnitude
 - time and frequency of body acceleration jerk magnitude
 - time and frequency of body angular velocity (gyroscope) magnitude
 - time and frequency of body angular velocity jerk (gyroscope) magnitude
- Set of variables estimated from the signals above
 - mean
 - std, standard deviation
 - mad, median absolute deviation
 - max, largest value in array
 - min, smallest value in array
 - sma, signal magnitude area
 - energy, sum of squares divided by number of values
 - iqr, interquartile range
 - entropy
 - arCoeff, autorregression coefficients
 - correlation, between two signals
 - maxInds, index of frequency component with largest magnitude
 - meanFreq, weighted average of the frequency components

- skewness, of frequency domain signal
- kurtosis, of frequency domain signal
- bandsEnergy, of a frequency interval within 64 bins of FFT of each window
- angle, between two vectors
- Additional vectors obtained by averaging of signals in a signal window sample
 - gravity mean
 - time body acceleration mean
 - time body acceleration jerk mean
 - time body angular velocity (gyroscope) mean
 - time body angular velocity jerk (gyroscope) mean

Download files

To obtain the set of original files see <http://archive.ics.uci.edu/ml/machine-learning-databases/00240/UCI%20HAR%20Dataset.zip>.

Read files

The R version and packages utilized to tidy the data were:

R version 4.0.2 (2020-06-22) – “Taking Off Again” Copyright (C) 2020 The R Foundation for Statistical Computing Platform: x86_64-apple-darwin17.0 (64-bit)

```
library(dplyr)

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union

library(tidyr)
library(readr)
library(data.table)

##
## Attaching package: 'data.table'

## The following objects are masked from 'package:dplyr':
##
##     between, first, last
```

Merge files into one dataset

OBSERVATIONS

- Subjects or individuals: 30

VARIABLES

- Activity labels: Six (walking, walking_upstairs, walking_downstairs, sitting, standing, and laying)
- time, sec
- frequency, Hz
- angular velocity, rad/sec
- linear acceleration, m/sec

- gravity, 9.80665 m/sec²
- jerk signals, acceleration and angular velocity derived in time
- magnitude, three diemntional acceleration and angular velocity using Euclidian norm
- frequency domain signals, Fast Fourier Transform applied to signals
- angle, rad

STEPS

1. Rename and number columns in each file to make them understandable and manageable
2. In y_train and y_test files, change activity number to activity label
3. Merge subject vector with activity\$label vector in y_train and y_test
4. Merge previous data set (item 3) with x_train and x_test, which are the 561 features/variables in raw data
5. Change feature number for feature name
6. Merge test (30% of data) and train(70% of data) data sets
7. Select only columns with mean and standard deviation values
8. Substitute characters to make tidy column names
9. Group data set by activity and individual
10. Create another data set with the average of values in previous data set (item 9)
11. Create file of previous data set (item 10)

FINAL OUTCOME DATA SET

Tidy data set with 180 observations and 88 variables (average means and standard deviations).

Codebook metadata

Cancel Done

Data

meanstd

Search:

name	data_type	ordered	value_labels	n_missing	complete_rate	n_unique	top_counts	min	median	max	mean	sd	hist	label
subject	numeric			0	1			1	17.0000	30	16.146421983	8.67906670		
activity	factor	FALSE	1. walking, 2. walking_upstairs, 3. walking_downstairs, 4. sitting, 5. standing, 6. laying	0	1	6	lay: 1944, sta: 1906, sit: 1777, wal: 1722							
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tBodyAcc_mean_Y	numeric			0	1			-1	-0.0172	1	-0.017743492	0.03712817		
tBodyAcc_mean_Z	numeric			0	1			-1	-0.1086	1	-0.108925033	0.05303309		
tBodyAcc_std_X	numeric			0	1			-1	-0.9430	1	-0.607783819	0.43869383		
tBodyAcc_std_Y	numeric			0	1			-1	-0.8350	1	-0.510191378	0.50023977		
tBodyAcc_std_Z	numeric			0	1			-1	-0.8508	1	-0.613064299	0.40365658		
tGravityAcc_mean_X	numeric			0	1			-1	0.9218	1	0.669226222	0.51548578		
tGravityAcc_mean_Y	numeric			0	1			-1	-0.1436	1	0.004038791	0.37890922		
tGravityAcc_mean_Z	numeric			0	1			-1	0.0368	1	0.092150860	0.33427017		
tGravityAcc_std_X	numeric			0	1			-1	-0.9819	1	-0.965207115	0.07771480		
tGravityAcc_std_Y	numeric			0	1			-1	-0.9759	1	-0.954408027	0.08528662		
tGravityAcc_std_Z	numeric			0	1			-1	-0.9665	1	-0.938900969	0.10155485		
tBodyAccJerk_mean_X	numeric			0	1			-1	0.0760	1	0.078938122	0.17611246		
tBodyAccJerk_mean_Y	numeric			0	1			-1	0.0108	1	0.007948107	0.16451839		
tBodyAccJerk_mean_Z	numeric			0	1			-1	-0.0012	1	-0.004674698	0.15597899		

Codebook metadata

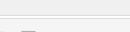
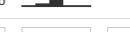
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tBodyAccJerk_std_Z	numeric	0	1		-1	-0.9543	1	-0.762820240	0.27790139		
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tBodyGyro_std_Z	numeric	0	1		-1	-0.8819	1	-0.653665674	0.37260608		
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tBodyGyroJerk_std_Y	numeric	0	1		-1	-0.9548	1	-0.786062320	0.27271568		
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tGravityAccMag_mean	numeric	0	1		-1	-0.8746	1	-0.548221660	0.46709374		
tGravityAccMag_std	numeric	0	1		-1	-0.8437	1	-0.591225327	0.42943135		
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tBodyGyroMag_mean	numeric	0	1		-1	-0.8223	1	-0.605248570	0.39970956		
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Codebook metadata

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fBodyAcc_std_X	numeric	0	1		-1	-0.9416	1	-0.603356277	0.44679282		
fBodyAcc_std_Y	numeric	0	1		-1	-0.8326	1	-0.528420010	0.47992499		
fBodyAcc_std_Z	numeric	0	1		-1	-0.8398	1	-0.617874813	0.39897318		
fBodyAcc_meanFreq_X	numeric	0	1		-1	-0.2383	1	-0.221469137	0.26458578		
fBodyAcc_meanFreq_Y	numeric	0	1		-1	0.0047	1	0.015400589	0.24084604		
fBodyAcc_meanFreq_Z	numeric	0	1		-1	0.0608	1	0.047309870	0.28378483		
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fBodyAccJerk_meanFreq_Y	numeric	0	1		-1	-0.2365	1	-0.213392905	0.27218628		
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fBodyGyro_mean_X	numeric	0	1		-1	-0.8917	1	-0.672094307	0.35149843		
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fBodyGyro_mean_Z	numeric	0	1		-1	-0.8877	1	-0.644192753	0.38201938		
fBodyGyro_std_X	numeric	0	1		-1	-0.9053	1	-0.738594817	0.28577304		
fBodyGyro_std_Y	numeric	0	1		-1	-0.9061	1	-0.674226935	0.36966468		
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Done

Codebook metadata

name	data_type	ordered	value_labels	n_missing	complete_rate	n_unique	top_counts	min	median	max	mean	sd	hist	label
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fBodyGyro_std_Z	numeric	0	1		-1	-0.8915	1	-0.690446313	0.33731015					
fBodyGyro_meanFreq_X	numeric	0	1		-1	-0.0987	1	-0.101042702	0.25588887					
fBodyGyro_meanFreq_Y	numeric	0	1		-1	-0.1730	1	-0.174277578	0.27333325					
fBodyGyro_meanFreq_Z	numeric	0	1		-1	-0.0537	1	-0.051392895	0.26619280					
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fBodyAccMag_std	numeric	0	1		-1	-0.8547	1	-0.659531217	0.35542882					
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fBodyAccJerkMag_meanFreq	numeric	0	1		-1	0.1642	1	0.173219743	0.25253698					
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angle_YgravityMean	numeric	0	1		-1	0.1820	1	0.063255174	0.30546796					
angle_ZgravityMean	numeric	0	1		-1	-0.0039	1	-0.054284282	0.26889816					

Codebook metadata

Cancel Done

Data avg_data ▾

Search:

name	data_type	n_missing	complete_rate	min	median	max	mean	sd	hist	activity	label
activity				1. walking, 2. walking_upstairs, 3. walking_downstairs, 4. sitting, 5. standing, 6. laying							
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		walking	
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		walking_upstairs	
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		walking_downstairs	
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		sitting	
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		standing	
subject	numeric	0	1	1.0000	1.6e+01	30.0000	15.5000000000	8.803408431		laying	
avg_tBodyAcc_mean_X	numeric	0	1	0.2718	2.8e-01	0.2837	0.2763070938	0.002918209		walking	
avg_tBodyAcc_mean_X	numeric	0	1	0.2421	2.6e-01	0.2780	0.2617563082	0.009012325		walking_upstairs	
avg_tBodyAcc_mean_X	numeric	0	1	0.2627	2.9e-01	0.3015	0.2880303453	0.008183724		walking_downstairs	
avg_tBodyAcc_mean_X	numeric	0	1	0.2483	2.7e-01	0.2847	0.2728633322	0.007699510		sitting	
avg_tBodyAcc_mean_X	numeric	0	1	0.2767	2.8e-01	0.2835	0.2791964937	0.001846853		standing	
avg_tBodyAcc_mean_X	numeric	0	1	0.2216	2.7e-01	0.2895	0.2676628803	0.016109017		laying	
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0225	-1.8e-02	-0.0148	-0.0179133377	0.001815301		walking	
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0325	-2.7e-02	-0.0144	-0.0259175029	0.004850736		walking_upstairs	
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0227	-1.7e-02	-0.0056	-0.0163187816	0.004323843		walking_downstairs	
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0270	-1.4e-02	-0.0013	-0.0125071644	0.005046984		sitting	

Codebook metadata											
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0200	-1.7e-02	-0.0070	-0.0161005779	0.002516252		standing	
avg_tBodyAcc_mean_Y	numeric	0	1	-0.0405	-1.8e-02	-0.0103	-0.0184957787	0.005037417		laying	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1227	-1.1e-01	-0.0986	-0.1088613646	0.004315879		walking	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1525	-1.2e-01	-0.0973	-0.1208393974	0.011944419		walking_upstairs	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1337	-1.1e-01	-0.0892	-0.1060136737	0.009012947		walking_downstairs	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1225	-1.1e-01	-0.0754	-0.1054577012	0.008568440		sitting	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1122	-1.1e-01	-0.0953	-0.1063481812	0.004394768		standing	
avg_tBodyAcc_mean_Z	numeric	0	1	-0.1331	-1.1e-01	-0.0868	-0.1074625768	0.007393915		laying	
avg_tBodyAcc_std_X	numeric	0	1	-0.5960	-3.2e-01	-0.0087	-0.3064349880	0.123640640		walking	
avg_tBodyAcc_std_X	numeric	0	1	-0.4598	-2.4e-01	0.0836	-0.2285823217	0.129948325		walking_upstairs	
avg_tBodyAcc_std_X	numeric	0	1	-0.3026	1.0e-01	0.6269	0.1160111434	0.192501347		walking_downstairs	
avg_tBodyAcc_std_X	numeric	0	1	-0.9944	-9.8e-01	-0.9572	-0.9829329565	0.007831198		sitting	
avg_tBodyAcc_std_X	numeric	0	1	-0.9961	-9.9e-01	-0.9667	-0.9841873835	0.008537716		standing	
avg_tBodyAcc_std_X	numeric	0	1	-0.9848	-9.7e-01	-0.9091	-0.9600139521	0.019964946		laying	
avg_tBodyAcc_std_Y	numeric	0	1	-0.3146	-7.4e-02	0.4898	-0.0205036637	0.177118719		walking	
avg_tBodyAcc_std_Y	numeric	0	1	-0.3262	-9.4e-03	0.3488	-0.0064891408	0.172316867		walking_upstairs	
avg_tBodyAcc_std_Y	numeric	0	1	-0.2542	-3.8e-03	0.6169	0.0706550552	0.224410717		walking_downstairs	
avg_tBodyAcc_std_Y	numeric	0	1	-0.9749	-9.4e-01	-0.8566	-0.9322078911	0.027210264		sitting	
avg_tBodyAcc_std_Y	numeric	0	1	-0.9732	-9.4e-01	-0.8616	-0.9317903795	0.031618391		standing	
avg_tBodyAcc_std_Y	numeric	0	1	-0.9902	-9.5e-01	-0.6918	-0.9424397923	0.056739770		laying	
avg_tBodyAcc_std_Z	numeric	0	1	-0.5863	-2.8e-01	0.1642	-0.2715387401	0.191216201		walking	
avg_tBodyAcc_std_Z	numeric	0	1	-0.4367	-2.2e-01	0.6090	-0.1728918718	0.211894654		walking_upstairs	
avg_tBodyAcc_std_Z	numeric	0	1	-0.4792	-2.3e-01	0.4516	-0.1855704904	0.209697695		walking_downstairs	
avg_tBodyAcc_std_Z	numeric	0	1	-0.9776	-9.4e-01	-0.8320	-0.9371163904	0.033433096		sitting	
avg_tBodyAcc_std_Z	numeric	0	1	-0.9864	-9.4e-01	-0.8693	-0.9390957742	0.027752843		standing	

Codebook metadata											Done
avg_tBodyAcc_std_Z	numeric	0	1	-0.9877	-9.6e-01	-0.7173	-0.9471482099	0.053945206	[REDACTED]	laying	
avg_tGravityAcc_mean_X	numeric	0	1	0.8030	9.4e-01	0.9726	0.9347979509	0.034289568	[REDACTED]	walking	
avg_tGravityAcc_mean_X	numeric	0	1	0.6883	8.9e-01	0.9463	0.8735820732	0.060597031	[REDACTED]	walking_upstairs	
avg_tGravityAcc_mean_X	numeric	0	1	0.8163	9.3e-01	0.9580	0.9254631395	0.030501681	[REDACTED]	walking_downstairs	
avg_tGravityAcc_mean_X	numeric	0	1	0.5814	9.0e-01	0.9691	0.8823580790	0.074682526	[REDACTED]	sitting	
avg_tGravityAcc_mean_X	numeric	0	1	0.8753	9.5e-01	0.9745	0.9429458478	0.025888387	[REDACTED]	standing	
avg_tGravityAcc_mean_X	numeric	0	1	-0.6800	-4.0e-01	-0.1348	-0.3742820551	0.152702708	[REDACTED]	laying	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.3710	-2.0e-01	-0.0314	-0.1959510362	0.086203853	[REDACTED]	walking	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.4799	-2.9e-01	-0.0378	-0.2824939918	0.102839875	[REDACTED]	walking_upstairs	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.3567	-1.7e-01	-0.0352	-0.1700251650	0.085186559	[REDACTED]	walking_downstairs	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.1126	1.2e-01	0.3603	0.1073694158	0.119059695	[REDACTED]	sitting	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.3701	-1.8e-01	-0.0104	-0.1784573960	0.095007193	[REDACTED]	standing	
avg_tGravityAcc_mean_Y	numeric	0	1	-0.1393	7.1e-01	0.9566	0.6222811563	0.302011770	[REDACTED]	laying	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.4225	-6.5e-02	0.1884	-0.0567422718	0.135095557	[REDACTED]	walking	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.4951	-1.5e-01	0.1466	-0.1443458158	0.167146487	[REDACTED]	walking_upstairs	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.3926	-5.9e-02	0.2188	-0.0503075605	0.130902132	[REDACTED]	walking_downstairs	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.1358	1.4e-01	0.4891	0.1527350804	0.136815979	[REDACTED]	sitting	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.3382	1.4e-02	0.2012	-0.0074609544	0.125608954	[REDACTED]	standing	
avg_tGravityAcc_mean_Z	numeric	0	1	-0.0369	6.1e-01	0.9579	0.5508887477	0.292290932	[REDACTED]	laying	
avg_tGravityAcc_std_X	numeric	0	1	-0.9838	-9.8e-01	-0.9696	-0.9774789839	0.004176502	[REDACTED]	walking	
avg_tGravityAcc_std_X	numeric	0	1	-0.9622	-9.5e-01	-0.9165	-0.9475820513	0.012193125	[REDACTED]	walking_upstairs	
avg_tGravityAcc_std_X	numeric	0	1	-0.9649	-9.5e-01	-0.8997	-0.9488643048	0.013469967	[REDACTED]	walking_downstairs	
avg_tGravityAcc_std_X	numeric	0	1	-0.9940	-9.8e-01	-0.9553	-0.9790766353	0.010819769	[REDACTED]	sitting	
avg_tGravityAcc_std_X	numeric	0	1	-0.9968	-9.9e-01	-0.9720	-0.9879622678	0.006581518	[REDACTED]	standing	
avg_tGravityAcc_std_X	numeric	0	1	-0.9827	-9.5e-01	-0.8296	-0.9415509415	0.036146476	[REDACTED]	laying	

Codebook metadata										
avg_tGravityAcc_std_Y	numeric	0	1	-0.9753	-9.7e-01	-0.9545	-0.9667608428	0.005420318	[REDACTED]	walking
avg_tGravityAcc_std_Y	numeric	0	1	-0.9528	-9.2e-01	-0.9005	-0.9255205787	0.014381894	[REDACTED]	walking_upstairs
avg_tGravityAcc_std_Y	numeric	0	1	-0.9555	-9.4e-01	-0.9086	-0.9343476102	0.011964065	[REDACTED]	walking_downstairs
avg_tGravityAcc_std_Y	numeric	0	1	-0.9840	-9.6e-01	-0.9039	-0.9558452714	0.017394266	[REDACTED]	sitting
avg_tGravityAcc_std_Y	numeric	0	1	-0.9851	-9.7e-01	-0.9176	-0.9687763561	0.014570377	[REDACTED]	standing
avg_tGravityAcc_std_Y	numeric	0	1	-0.9942	-9.8e-01	-0.6436	-0.9633266995	0.063062667	[REDACTED]	laying
avg_tGravityAcc_std_Z	numeric	0	1	-0.9749	-9.6e-01	-0.9292	-0.9548618194	0.010510439	[REDACTED]	walking
avg_tGravityAcc_std_Z	numeric	0	1	-0.9381	-9.1e-01	-0.8369	-0.9015477838	0.025515291	[REDACTED]	walking_upstairs
avg_tGravityAcc_std_Z	numeric	0	1	-0.9422	-9.2e-01	-0.8693	-0.9122571167	0.020177358	[REDACTED]	walking_downstairs
avg_tGravityAcc_std_Z	numeric	0	1	-0.9783	-9.5e-01	-0.8686	-0.9459171020	0.025158917	[REDACTED]	sitting
avg_tGravityAcc_std_Z	numeric	0	1	-0.9894	-9.6e-01	-0.8994	-0.9521483851	0.020743418	[REDACTED]	standing
avg_tGravityAcc_std_Z	numeric	0	1	-0.9910	-9.7e-01	-0.6102	-0.9516740424	0.070601290	[REDACTED]	laying
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0458	7.7e-02	0.0987	0.0767353762	0.010696874	[REDACTED]	walking
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0427	7.5e-02	0.1063	0.0771995716	0.013555679	[REDACTED]	walking_upstairs
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0429	9.2e-02	0.1302	0.0896425830	0.021354045	[REDACTED]	walking_downstairs
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0669	7.6e-02	0.0808	0.0758167051	0.002496829	[REDACTED]	sitting
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0721	7.5e-02	0.0810	0.0750816785	0.001488355	[REDACTED]	standing
avg_tBodyAccJerk_mean_X	numeric	0	1	0.0719	8.1e-02	0.0981	0.0823654452	0.007275002	[REDACTED]	laying
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0211	1.3e-02	0.0357	0.0111415758	0.013625076	[REDACTED]	walking
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0183	5.2e-03	0.0568	0.0094011294	0.019329353	[REDACTED]	walking_upstairs
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0387	-6.8e-05	0.0375	0.0005934376	0.019237698	[REDACTED]	walking_downstairs
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0109	5.8e-03	0.0148	0.0045114685	0.006821900	[REDACTED]	sitting
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0065	1.0e-02	0.0131	0.0086972888	0.004154276	[REDACTED]	standing
avg_tBodyAccJerk_mean_Y	numeric	0	1	-0.0083	1.2e-02	0.0285	0.0110463597	0.007351070	[REDACTED]	laying
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0328	-1.3e-03	0.0244	-0.0022831401	0.011967459	[REDACTED]	walking

Codebook metadata												
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0675	-1.2e-03	0.0381	-0.0067078520	0.024905762		walking_upstairs		
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0394	-9.7e-03	0.0213	-0.0085954006	0.012389863		walking_downstairs		
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0232	-1.8e-03	0.0162	-0.0024718109	0.007752094		sitting		
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0212	-4.7e-03	0.0032	-0.0047628912	0.004743749		standing		
avg_tBodyAccJerk_mean_Z	numeric	0	1	-0.0324	-3.7e-03	0.0108	-0.0048993250	0.009396704		laying		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.6076	-2.9e-01	0.1103	-0.2608315043	0.160885856		walking		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.6636	-3.6e-01	-0.0085	-0.3477634202	0.149276803		walking_upstairs		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.5020	-7.9e-03	0.5443	-0.0172228735	0.201820848		walking_downstairs		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.9943	-9.9e-01	-0.9645	-0.9844806264	0.007550667		sitting		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.9946	-9.8e-01	-0.9571	-0.9795921630	0.010846328		standing		
avg_tBodyAccJerk_std_X	numeric	0	1	-0.9920	-9.8e-01	-0.9585	-0.9797896096	0.008070575		laying		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.4256	-8.8e-02	0.2443	-0.0981441244	0.180275708		walking		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.6271	-3.3e-01	-0.0124	-0.3251095819	0.172266577		walking_upstairs		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.4470	-9.5e-02	0.3553	-0.0620893685	0.203759848		walking_downstairs		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.9886	-9.8e-01	-0.9446	-0.9730405865	0.012495166		sitting		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.9867	-9.7e-01	-0.9312	-0.9639180527	0.016602298		standing		
avg_tBodyAccJerk_std_Y	numeric	0	1	-0.9895	-9.7e-01	-0.9241	-0.9701865721	0.016127672		laying		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.7514	-5.0e-01	-0.0293	-0.4735892344	0.162769279		walking		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.8125	-6.4e-01	-0.3279	-0.6201549551	0.119252227		walking_upstairs		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.7115	-3.8e-01	0.0310	-0.3821226547	0.180950308		walking_downstairs		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.9905	-9.8e-01	-0.9586	-0.9818978360	0.008203570		sitting		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.9923	-9.8e-01	-0.9589	-0.9792284733	0.009085610		standing		
avg_tBodyAccJerk_std_Z	numeric	0	1	-0.9933	-9.8e-01	-0.9549	-0.9787529820	0.009972292		laying		
avg_tBodyGyro_mean_X	numeric	0	1	-0.1059	-3.0e-02	0.0235	-0.0345675965	0.032174365		walking		
avg_tBodyGyro_mean_X	numeric	0	1	-0.1640	3.9e-02	0.1927	0.0088869415	0.092282074		walking_upstairs		

Codebook metadata										
avg_tBodyGyro_mean_X	numeric	0	1	-0.2058	-9.9e-02	0.0678	-0.0867863152	0.056059840		walking_downstairs
avg_tBodyGyro_mean_X	numeric	0	1	-0.0547	-3.8e-02	-0.0199	-0.0392887729	0.007247394		sitting
avg_tBodyGyro_mean_X	numeric	0	1	-0.0327	-2.7e-02	-0.0192	-0.0268660257	0.003099601		standing
avg_tBodyGyro_mean_X	numeric	0	1	-0.0312	-1.7e-02	0.0054	-0.0160011906	0.009498371		laying
avg_tBodyGyro_mean_Y	numeric	0	1	-0.0961	-7.2e-02	-0.0173	-0.0693653029	0.017412479		walking
avg_tBodyGyro_mean_Y	numeric	0	1	-0.2042	-9.1e-02	0.0212	-0.0903382864	0.060812050		walking_upstairs
avg_tBodyGyro_mean_Y	numeric	0	1	-0.1235	-5.9e-02	0.0275	-0.0518993124	0.040000946		walking_downstairs
avg_tBodyGyro_mean_Y	numeric	0	1	-0.0955	-7.5e-02	-0.0336	-0.0725101049	0.014113594		sitting
avg_tBodyGyro_mean_Y	numeric	0	1	-0.0877	-6.9e-02	-0.0280	-0.0674044277	0.010881241		standing
avg_tBodyGyro_mean_Y	numeric	0	1	-0.1589	-9.4e-02	-0.0416	-0.0940399998	0.024739250		laying
avg_tBodyGyro_mean_Z	numeric	0	1	0.0510	8.4e-02	0.1183	0.0864166742	0.015616267		walking
avg_tBodyGyro_mean_Z	numeric	0	1	-0.0725	6.8e-02	0.1457	0.0580748634	0.054663794		walking_upstairs
avg_tBodyGyro_mean_Z	numeric	0	1	0.0163	9.3e-02	0.1640	0.0946340511	0.033225273		walking_downstairs
avg_tBodyGyro_mean_Z	numeric	0	1	0.0259	8.1e-02	0.1012	0.0771436216	0.015869827		sitting
avg_tBodyGyro_mean_Z	numeric	0	1	0.0637	8.0e-02	0.1033	0.0802733530	0.008640715		standing
avg_tBodyGyro_mean_Z	numeric	0	1	0.0936	1.3e-01	0.1791	0.1281253180	0.024695856		laying
avg_tBodyGyro_std_X	numeric	0	1	-0.7044	-4.9e-01	-0.0264	-0.4667110236	0.142986257		walking
avg_tBodyGyro_std_X	numeric	0	1	-0.5938	-4.9e-01	-0.3015	-0.4626696029	0.086334126		walking_upstairs
avg_tBodyGyro_std_X	numeric	0	1	-0.5025	-3.6e-01	0.2677	-0.3285128835	0.138499668		walking_downstairs
avg_tBodyGyro_std_X	numeric	0	1	-0.9920	-9.8e-01	-0.9419	-0.9800944306	0.011914383		sitting
avg_tBodyGyro_std_X	numeric	0	1	-0.9872	-9.5e-01	-0.8837	-0.9449415549	0.031690276		standing
avg_tBodyGyro_std_X	numeric	0	1	-0.9943	-9.7e-01	-0.8735	-0.9669099211	0.026647156		laying
avg_tBodyGyro_std_Y	numeric	0	1	-0.6654	-4.5e-01	0.2595	-0.3527300879	0.233753307		walking
avg_tBodyGyro_std_Y	numeric	0	1	-0.6031	-4.4e-01	0.4765	-0.3411591546	0.255624558		walking_upstairs
avg_tBodyGyro_std_Y	numeric	0	1	-0.6995	-3.8e-01	0.2138	-0.3362141348	0.217985671		walking_downstairs

Codebook metadata												
avg_tBodyGyro_std_Y	numeric	0	1	-0.9883	-9.7e-01	-0.9192	-0.9661137977	0.016671807		sitting		
avg_tBodyGyro_std_Y	numeric	0	1	-0.9942	-9.7e-01	-0.9039	-0.9609784893	0.021405722		standing		
avg_tBodyGyro_std_Y	numeric	0	1	-0.9928	-9.6e-01	-0.9266	-0.9626165152	0.016281112		laying		
avg_tBodyGyro_std_Z	numeric	0	1	-0.6626	-3.5e-01	-0.0754	-0.3321120059	0.143941652		walking		
avg_tBodyGyro_std_Z	numeric	0	1	-0.6947	-2.5e-01	0.5649	-0.2267672965	0.260152637		walking_upstairs		
avg_tBodyGyro_std_Z	numeric	0	1	-0.4985	-3.0e-01	0.3562	-0.2644015498	0.193280025		walking_downstairs		
avg_tBodyGyro_std_Z	numeric	0	1	-0.9815	-9.6e-01	-0.9264	-0.9565409251	0.015394888		sitting		
avg_tBodyGyro_std_Z	numeric	0	1	-0.9855	-9.6e-01	-0.9073	-0.9563454210	0.024200319		standing		
avg_tBodyGyro_std_Z	numeric	0	1	-0.9851	-9.7e-01	-0.9083	-0.9624445677	0.019105456		laying		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1359	-9.2e-02	-0.0578	-0.0945997465	0.020019521		walking		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1572	-1.2e-01	-0.0456	-0.1128973609	0.032389016		walking_upstairs		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1280	-7.3e-02	-0.0221	-0.0716446643	0.030356445		walking_downstairs		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1036	-9.5e-02	-0.0890	-0.0954008099	0.002839569		sitting		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1056	-1.0e-01	-0.0902	-0.0996267800	0.003206881		standing		
avg_tBodyGyroJerk_mean_X	numeric	0	1	-0.1113	-1.0e-01	-0.0956	-0.1021714140	0.003171456		laying		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0617	-4.5e-02	-0.0307	-0.0445410666	0.007985254		walking		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0720	-3.9e-02	-0.0132	-0.0387419755	0.012959118		walking_upstairs		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0768	-5.0e-02	-0.0292	-0.0515045867	0.013545204		walking_downstairs		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0467	-4.1e-02	-0.0334	-0.0407930988	0.002568011		sitting		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0485	-4.2e-02	-0.0372	-0.0423479952	0.002308595		standing		
avg_tBodyGyroJerk_mean_Y	numeric	0	1	-0.0427	-3.9e-02	-0.0276	-0.0382279690	0.003039205		laying		
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0903	-5.2e-02	-0.0343	-0.0542854428	0.010807064		walking		
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0925	-5.3e-02	-0.0069	-0.0525917430	0.019623875		walking_upstairs		
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0868	-5.6e-02	-0.0270	-0.0552181099	0.015906338		walking_downstairs		
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0591	-5.0e-02	-0.0436	-0.0504469854	0.004122857		sitting		

Codebook metadata									
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0584	-5.2e-02	-0.0417	-0.0520373375	0.003677636	 standing
avg_tBodyGyroJerk_mean_Z	numeric	0	1	-0.0741	-6.3e-02	-0.0535	-0.0642316770	0.005524990	 laying
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.6759	-3.9e-01	0.0801	-0.3751380563	0.156117170	 walking
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.7607	-5.5e-01	-0.1868	-0.5432249891	0.141621847	 walking_upstairs
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.6767	-4.1e-01	0.1791	-0.3767385253	0.186890029	 walking_downstairs
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.9959	-9.9e-01	-0.9437	-0.9850080388	0.011943812	 sitting
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.9929	-9.7e-01	-0.9216	-0.9665449960	0.018871306	 standing
avg_tBodyGyroJerk_std_X	numeric	0	1	-0.9965	-9.8e-01	-0.9186	-0.9751416818	0.017379445	 laying
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.8074	-5.7e-01	0.2959	-0.5145026305	0.226201461	 walking
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.8407	-6.8e-01	-0.3715	-0.6611549357	0.130602242	 walking_upstairs
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.8169	-4.9e-01	0.1467	-0.4595521322	0.231695053	 walking_downstairs
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.9953	-9.9e-01	-0.9618	-0.9861567969	0.007754308	 sitting
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.9956	-9.8e-01	-0.9476	-0.9800298225	0.011712351	 standing
avg_tBodyGyroJerk_std_Y	numeric	0	1	-0.9971	-9.8e-01	-0.9586	-0.9799146932	0.009568135	 laying
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.6633	-4.7e-01	-0.1577	-0.4430379277	0.139059520	 walking
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.7772	-5.7e-01	-0.1708	-0.5538615767	0.148145446	 walking_upstairs
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.6057	-3.7e-01	0.1932	-0.3162469906	0.207012604	 walking_downstairs
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.9938	-9.9e-01	-0.9588	-0.9832122612	0.009229153	 sitting
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.9927	-9.8e-01	-0.9448	-0.9767155770	0.013327136	 standing
avg_tBodyGyroJerk_std_Z	numeric	0	1	-0.9954	-9.9e-01	-0.9578	-0.9842807710	0.009406447	 laying
avg_tBodyAccMag_mean	numeric	0	1	-0.4053	-1.5e-01	0.0722	-0.1610185515	0.116838192	 walking
avg_tBodyAccMag_mean	numeric	0	1	-0.3058	-1.2e-01	0.2103	-0.0911794497	0.129989910	 walking_upstairs
avg_tBodyAccMag_mean	numeric	0	1	-0.2935	1.2e-01	0.6446	0.1160172122	0.179543080	 walking_downstairs
avg_tBodyAccMag_mean	numeric	0	1	-0.9837	-9.6e-01	-0.8934	-0.9530589138	0.021333668	 sitting
avg_tBodyAccMag_mean	numeric	0	1	-0.9849	-9.6e-01	-0.9061	-0.9536018485	0.021782407	 standing

Codebook metadata											Done
avg_tBodyAccMag_std	numeric	0	1	-0.9865	-9.5e-01	-0.6493	-0.9305146541	0.066159486		laying	
avg_tGravityAccMag_mean	numeric	0	1	-0.4053	-1.5e-01	0.0722	-0.1610185515	0.116838192		walking	
avg_tGravityAccMag_mean	numeric	0	1	-0.3058	-1.2e-01	0.2103	-0.0911794497	0.129989910		walking_upstairs	
avg_tGravityAccMag_mean	numeric	0	1	-0.2935	1.2e-01	0.6446	0.1160172122	0.179543080		walking_downstairs	
avg_tGravityAccMag_mean	numeric	0	1	-0.9837	-9.6e-01	-0.8934	-0.9530589138	0.021333668		sitting	
avg_tGravityAccMag_mean	numeric	0	1	-0.9849	-9.6e-01	-0.9061	-0.9536018485	0.021782407		standing	
avg_tGravityAccMag_mean	numeric	0	1	-0.9865	-9.6e-01	-0.5605	-0.9408964499	0.077363492		laying	
avg_tGravityAccMag_std	numeric	0	1	-0.5656	-3.4e-01	-0.0994	-0.3334641903	0.124311228		walking	
avg_tGravityAccMag_std	numeric	0	1	-0.4800	-2.5e-01	-0.0198	-0.2439049516	0.111139906		walking_upstairs	
avg_tGravityAccMag_std	numeric	0	1	-0.2595	1.3e-01	0.4284	0.1270262747	0.164988607		walking_downstairs	
avg_tGravityAccMag_std	numeric	0	1	-0.9816	-9.4e-01	-0.8638	-0.9370542964	0.027796974		sitting	
avg_tGravityAccMag_std	numeric	0	1	-0.9819	-9.5e-01	-0.8798	-0.9455402074	0.026036577		standing	
avg_tGravityAccMag_std	numeric	0	1	-0.9865	-9.5e-01	-0.6493	-0.9305146541	0.066159486		laying	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.5383	-2.6e-01	0.1095	-0.2348770165	0.142619208		walking	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.6792	-3.9e-01	-0.0958	-0.3778373490	0.140646751		walking_upstairs	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.5005	-1.1e-01	0.4345	-0.0976447715	0.185701059		walking_downstairs	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9928	-9.9e-01	-0.9627	-0.9818974463	0.008507752		sitting	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9924	-9.8e-01	-0.9566	-0.9767955055	0.011040410		standing	
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9927	-9.8e-01	-0.9544	-0.9785254605	0.010047154		laying	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.5429	-2.3e-01	0.1115	-0.2089090745	0.174485380		walking	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.6745	-3.8e-01	-0.0877	-0.3747877975	0.130786155		walking_upstairs	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.4830	-3.0e-02	0.4506	0.0009183342	0.195438860		walking_downstairs	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9914	-9.8e-01	-0.9482	-0.9781709036	0.011540437		sitting	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9931	-9.7e-01	-0.9385	-0.9709416389	0.015471953		standing	
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9946	-9.8e-01	-0.9282	-0.9731625780	0.014160658		laying	

Codebook metadata										
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9928	-9.9e-01	-0.9627	-0.9818974463	0.008507752		sitting
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9924	-9.8e-01	-0.9566	-0.9767955055	0.011040410		standing
avg_tBodyAccJerkMag_mean	numeric	0	1	-0.9927	-9.8e-01	-0.9544	-0.9785254605	0.010047154		laying
avg_tBodyAccJerkMag_std	numeric	0	1	-0.5429	-2.3e-01	0.1115	-0.2089090745	0.174485380		walking
avg_tBodyAccJerkMag_std	numeric	0	1	-0.6745	-3.8e-01	-0.0877	-0.3747877975	0.130786155		walking_upstairs
avg_tBodyAccJerkMag_std	numeric	0	1	-0.4830	-3.0e-02	0.4506	0.0009183342	0.195438860		walking_downstairs
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9914	-9.8e-01	-0.9482	-0.9781709036	0.011540437		sitting
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9931	-9.7e-01	-0.9385	-0.9709416389	0.015471953		standing
avg_tBodyAccJerkMag_std	numeric	0	1	-0.9946	-9.8e-01	-0.9282	-0.9731625780	0.014160658		laying
avg_tBodyGyroMag_mean	numeric	0	1	-0.5005	-3.0e-01	0.1000	-0.2735649750	0.169258827		walking
avg_tBodyGyroMag_mean	numeric	0	1	-0.3691	-2.3e-01	0.3658	-0.1712209449	0.167687445		walking_upstairs
avg_tBodyGyroMag_mean	numeric	0	1	-0.3810	-1.6e-01	0.4180	-0.1227027529	0.165929454		walking_downstairs
avg_tBodyGyroMag_mean	numeric	0	1	-0.9776	-9.5e-01	-0.8979	-0.9450419874	0.018313520		sitting
avg_tBodyGyroMag_mean	numeric	0	1	-0.9807	-9.5e-01	-0.8837	-0.9414463450	0.029887636		standing
avg_tBodyGyroMag_mean	numeric	0	1	-0.9807	-9.5e-01	-0.8097	-0.9370014581	0.032964303		laying
avg_tBodyGyroMag_std	numeric	0	1	-0.6651	-4.2e-01	0.1633	-0.3848090507	0.193680377		walking
avg_tBodyGyroMag_std	numeric	0	1	-0.5281	-3.8e-01	0.3000	-0.3334458886	0.183843246		walking_upstairs
avg_tBodyGyroMag_std	numeric	0	1	-0.5080	-2.8e-01	0.2378	-0.2470299307	0.156700457		walking_downstairs
avg_tBodyGyroMag_std	numeric	0	1	-0.9814	-9.5e-01	-0.8981	-0.9497131661	0.020857286		sitting
avg_tBodyGyroMag_std	numeric	0	1	-0.9787	-9.3e-01	-0.8437	-0.9284859980	0.039175594		standing
avg_tBodyGyroMag_std	numeric	0	1	-0.9806	-9.5e-01	-0.8190	-0.9388842878	0.034261059		laying
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.6813	-5.1e-01	0.0115	-0.4604427112	0.161592516		walking
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.7817	-6.3e-01	-0.3429	-0.6002927750	0.125077796		walking_upstairs
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.7017	-4.4e-01	0.0876	-0.4093925163	0.183935007		walking_downstairs
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.9963	-9.9e-01	-0.9629	-0.9874438728	0.007934089		sitting

Codebook metadata										
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.9950	-9.8e-01	-0.9479	-0.9784640833	0.012157767		standing
avg_tBodyGyroJerkMag_mean	numeric	0	1	-0.9973	-9.9e-01	-0.9556	-0.9821798441	0.009844503		laying
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.7570	-5.5e-01	0.2502	-0.4996792591	0.217344901		walking
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.8355	-6.7e-01	-0.4401	-0.6610867387	0.109724617		walking_upstairs
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.7442	-4.6e-01	0.0595	-0.4362728787	0.199193617		walking_downstairs
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.9949	-9.9e-01	-0.9502	-0.9840817518	0.010162511		sitting
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.9947	-9.8e-01	-0.9263	-0.9731127153	0.015980360		standing
avg_tBodyGyroJerkMag_std	numeric	0	1	-0.9977	-9.8e-01	-0.9358	-0.9758577875	0.013656188		laying
avg_fBodyAcc_mean_X	numeric	0	1	-0.6090	-3.1e-01	-0.0300	-0.2914844524	0.128943377		walking
avg_fBodyAcc_mean_X	numeric	0	1	-0.5216	-3.1e-01	-0.0554	-0.2830248315	0.129412064		walking_upstairs
avg_fBodyAcc_mean_X	numeric	0	1	-0.3722	4.1e-02	0.5370	0.0493869707	0.179886463		walking_downstairs
avg_fBodyAcc_mean_X	numeric	0	1	-0.9940	-9.8e-01	-0.9594	-0.9825526800	0.007564934		sitting
avg_fBodyAcc_mean_X	numeric	0	1	-0.9952	-9.8e-01	-0.9601	-0.9812846565	0.010078253		standing
avg_fBodyAcc_mean_X	numeric	0	1	-0.9866	-9.7e-01	-0.9291	-0.9658402514	0.015841311		laying
avg_fBodyAcc_mean_Y	numeric	0	1	-0.3215	-6.8e-02	0.4035	-0.0377384424	0.170039167		walking
avg_fBodyAcc_mean_Y	numeric	0	1	-0.4050	-1.2e-01	0.2634	-0.1227879117	0.169237425		walking_upstairs
avg_fBodyAcc_mean_Y	numeric	0	1	-0.3090	5.3e-03	0.5242	0.0682693039	0.211804411		walking_downstairs
avg_fBodyAcc_mean_Y	numeric	0	1	-0.9765	-9.5e-01	-0.8919	-0.9460138402	0.020386598		sitting
avg_fBodyAcc_mean_Y	numeric	0	1	-0.9771	-9.5e-01	-0.8895	-0.9424866472	0.025885344		standing
avg_fBodyAcc_mean_Y	numeric	0	1	-0.9890	-9.6e-01	-0.7849	-0.9516387406	0.040027967		laying
avg_fBodyAcc_mean_Z	numeric	0	1	-0.6310	-3.4e-01	0.0814	-0.3380589120	0.166581540		walking
avg_fBodyAcc_mean_Z	numeric	0	1	-0.5608	-3.9e-01	0.1917	-0.3616853106	0.165286173		walking_upstairs
avg_fBodyAcc_mean_Z	numeric	0	1	-0.5561	-2.5e-01	0.2807	-0.2070592429	0.208948175		walking_downstairs
avg_fBodyAcc_mean_Z	numeric	0	1	-0.9830	-9.6e-01	-0.8922	-0.9557293998	0.021138294		sitting
avg_fBodyAcc_mean_Z	numeric	0	1	-0.9877	-9.6e-01	-0.9151	-0.9567349814	0.019146551		standing

Codebook metadata									
avg_fBodyAcc_mean_Z	numeric	0	1	-0.9895	-9.7e-01	-0.8162	-0.9591646750	0.034684641	[REDACTED] laying
avg_fBodyAcc_std_X	numeric	0	1	-0.5914	-3.3e-01	0.0244	-0.3139089283	0.125649092	[REDACTED] walking
avg_fBodyAcc_std_X	numeric	0	1	-0.4380	-2.3e-01	0.1320	-0.2098548461	0.133763067	[REDACTED] walking_upstairs
avg_fBodyAcc_std_X	numeric	0	1	-0.2855	1.3e-01	0.6585	0.1376019757	0.206609870	[REDACTED] walking_downstairs
avg_fBodyAcc_std_X	numeric	0	1	-0.9949	-9.8e-01	-0.9569	-0.9832509126	0.007999661	[REDACTED] sitting
avg_fBodyAcc_std_X	numeric	0	1	-0.9966	-9.9e-01	-0.9698	-0.9856610452	0.007878756	[REDACTED] standing
avg_fBodyAcc_std_X	numeric	0	1	-0.9853	-9.7e-01	-0.9025	-0.9581329178	0.021471112	[REDACTED] laying
avg_fBodyAcc_std_Y	numeric	0	1	-0.3544	-1.3e-01	0.4384	-0.0751476404	0.174886994	[REDACTED] walking
avg_fBodyAcc_std_Y	numeric	0	1	-0.3410	-3.5e-02	0.3561	-0.0140156293	0.168520903	[REDACTED] walking_upstairs
avg_fBodyAcc_std_Y	numeric	0	1	-0.3225	-7.1e-02	0.5602	0.0018928019	0.220658344	[REDACTED] walking_downstairs
avg_fBodyAcc_std_Y	numeric	0	1	-0.9750	-9.3e-01	-0.8497	-0.9297112172	0.028588770	[REDACTED] sitting
avg_fBodyAcc_std_Y	numeric	0	1	-0.9723	-9.4e-01	-0.8574	-0.9304308246	0.032233148	[REDACTED] standing
avg_fBodyAcc_std_Y	numeric	0	1	-0.9907	-9.5e-01	-0.6724	-0.9414598697	0.060304979	[REDACTED] laying
avg_fBodyAcc_std_Z	numeric	0	1	-0.5942	-3.0e-01	0.1333	-0.2946630688	0.194909454	[REDACTED] walking
avg_fBodyAcc_std_Z	numeric	0	1	-0.4186	-2.2e-01	0.6871	-0.1458449023	0.230170946	[REDACTED] walking_upstairs
avg_fBodyAcc_std_Z	numeric	0	1	-0.5127	-2.8e-01	0.4276	-0.2419283772	0.198688356	[REDACTED] walking_downstairs
avg_fBodyAcc_std_Z	numeric	0	1	-0.9757	-9.4e-01	-0.8180	-0.9323640105	0.036395014	[REDACTED] sitting
avg_fBodyAcc_std_Z	numeric	0	1	-0.9860	-9.4e-01	-0.8582	-0.9346020466	0.029630809	[REDACTED] standing
avg_fBodyAcc_std_Z	numeric	0	1	-0.9872	-9.6e-01	-0.6941	-0.9447660849	0.058541329	[REDACTED] laying
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.6256	-3.3e-01	0.0336	-0.3053391213	0.148356989	[REDACTED] walking
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.6682	-3.8e-01	-0.0382	-0.3773537778	0.143760158	[REDACTED] walking_upstairs
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.5258	-3.8e-02	0.4743	-0.0569468117	0.200052986	[REDACTED] walking_downstairs
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.9945	-9.9e-01	-0.9656	-0.9846864103	0.007299731	[REDACTED] sitting
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.9946	-9.8e-01	-0.9577	-0.9796331651	0.010846870	[REDACTED] standing
avg_fBodyAccJerk_mean_X	numeric	0	1	-0.9922	-9.8e-01	-0.9571	-0.9796100474	0.008205758	[REDACTED] laying

Codebook metadata									
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.4543	-1.5e-01	0.1600	-0.1651358362	0.165810341	 walking
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.6408	-3.5e-01	-0.0258	-0.3510659893	0.164632361	 walking_upstairs
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.4660	-1.2e-01	0.2767	-0.1050609153	0.188475347	 walking_downstairs
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.9883	-9.8e-01	-0.9443	-0.9731641506	0.012132482	 sitting
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.9863	-9.7e-01	-0.9314	-0.9641165317	0.016325330	 standing
avg_fBodyAccJerk_mean_Y	numeric	0	1	-0.9894	-9.7e-01	-0.9225	-0.9704349932	0.015909809	 laying
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.7290	-4.7e-01	-0.0572	-0.4453329443	0.160432852	 walking
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.7933	-6.1e-01	-0.2640	-0.5839079716	0.130247112	 walking_upstairs
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.6868	-3.4e-01	0.1578	-0.3261030513	0.197832922	 walking_downstairs
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.9888	-9.8e-01	-0.9542	-0.9791212301	0.009003375	 sitting
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.9908	-9.8e-01	-0.9527	-0.9758700130	0.010280888	 standing
avg_fBodyAccJerk_mean_Z	numeric	0	1	-0.9920	-9.8e-01	-0.9481	-0.9758157146	0.011055874	 laying
avg_fBodyAccJerk_std_X	numeric	0	1	-0.6241	-3.1e-01	0.0908	-0.2813614243	0.162422928	 walking
avg_fBodyAccJerk_std_X	numeric	0	1	-0.6902	-3.9e-01	-0.0678	-0.3765189312	0.144676574	 walking_upstairs
avg_fBodyAccJerk_std_X	numeric	0	1	-0.5222	-7.2e-02	0.4768	-0.0656310691	0.189149102	 walking_downstairs
avg_fBodyAccJerk_std_X	numeric	0	1	-0.9946	-9.9e-01	-0.9667	-0.9857018089	0.007149018	 sitting
avg_fBodyAccJerk_std_X	numeric	0	1	-0.9951	-9.8e-01	-0.9606	-0.9814878378	0.009816122	 standing
avg_fBodyAccJerk_std_X	numeric	0	1	-0.9925	-9.8e-01	-0.9642	-0.9819186280	0.007175339	 laying
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.4336	-6.1e-02	0.3159	-0.0865425855	0.188115678	 walking
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.6381	-3.6e-01	-0.0132	-0.3439632975	0.170810978	 walking_upstairs
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.4645	-1.3e-01	0.3498	-0.0803303444	0.210823391	 walking_downstairs
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.9899	-9.8e-01	-0.9469	-0.9749504174	0.012045232	 sitting
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.9882	-9.7e-01	-0.9362	-0.9664484765	0.015714608	 standing
avg_fBodyAccJerk_std_Y	numeric	0	1	-0.9905	-9.7e-01	-0.9322	-0.9721506906	0.015217952	 laying
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.7724	-5.3e-01	-0.0062	-0.5008988249	0.166535111	 walking

Codebook metadata										
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.8305	-6.7e-01	-0.3911	-0.6555641858	0.109107581		walking_upstairs
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.7350	-4.2e-01	-0.0847	-0.4375481799	0.165389169		walking_downstairs
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.9908	-9.9e-01	-0.9616	-0.9833160653	0.007390919		sitting
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.9923	-9.8e-01	-0.9640	-0.9812839065	0.007862861		standing
avg_fBodyAccJerk_std_Z	numeric	0	1	-0.9931	-9.8e-01	-0.9597	-0.9803253960	0.008888342		laying
avg_fBodyGyro_mean_X	numeric	0	1	-0.6097	-3.7e-01	0.2281	-0.3426805307	0.167711818		walking
avg_fBodyGyro_mean_X	numeric	0	1	-0.5923	-4.1e-01	-0.1151	-0.3858536471	0.117186373		walking_upstairs
avg_fBodyGyro_mean_X	numeric	0	1	-0.4892	-2.3e-01	0.4750	-0.2111891950	0.176064712		walking_downstairs
avg_fBodyGyro_mean_X	numeric	0	1	-0.9901	-9.8e-01	-0.9397	-0.9762025749	0.014148114		sitting
avg_fBodyGyro_mean_X	numeric	0	1	-0.9864	-9.5e-01	-0.8804	-0.9429645884	0.031404389		standing
avg_fBodyGyro_mean_X	numeric	0	1	-0.9931	-9.7e-01	-0.8502	-0.9615470944	0.029913859		laying
avg_fBodyGyro_mean_Y	numeric	0	1	-0.6885	-4.7e-01	0.1956	-0.3915976884	0.216224950		walking
avg_fBodyGyro_mean_Y	numeric	0	1	-0.6843	-5.2e-01	0.1187	-0.4529537659	0.187673156		walking_upstairs
avg_fBodyGyro_mean_Y	numeric	0	1	-0.7175	-3.7e-01	0.3288	-0.3118019578	0.245767661		walking_downstairs
avg_fBodyGyro_mean_Y	numeric	0	1	-0.9903	-9.8e-01	-0.9397	-0.9719460368	0.013599437		sitting
avg_fBodyGyro_mean_Y	numeric	0	1	-0.9940	-9.7e-01	-0.9106	-0.9649873681	0.019523174		standing
avg_fBodyGyro_mean_Y	numeric	0	1	-0.9937	-9.7e-01	-0.9346	-0.9668339874	0.014887661		laying
avg_fBodyGyro_mean_Z	numeric	0	1	-0.6014	-3.0e-01	-0.0105	-0.3047959232	0.144225237		walking
avg_fBodyGyro_mean_Z	numeric	0	1	-0.6747	-3.3e-01	0.1967	-0.2862679772	0.207413429		walking_upstairs
avg_fBodyGyro_mean_Z	numeric	0	1	-0.4470	-2.1e-01	0.4924	-0.1549172145	0.217315991		walking_downstairs
avg_fBodyGyro_mean_Z	numeric	0	1	-0.9830	-9.6e-01	-0.9338	-0.9597157276	0.014314936		sitting
avg_fBodyGyro_mean_Z	numeric	0	1	-0.9860	-9.6e-01	-0.9072	-0.9576510461	0.023256764		standing
avg_fBodyGyro_mean_Z	numeric	0	1	-0.9860	-9.7e-01	-0.9093	-0.9629995777	0.017976914		laying
avg_fBodyGyro_std_X	numeric	0	1	-0.7349	-5.3e-01	-0.1084	-0.5079168657	0.137947218		walking
avg_fBodyGyro_std_X	numeric	0	1	-0.6029	-5.0e-01	-0.3381	-0.4913239232	0.082715811		walking_upstairs

Codebook metadata										Done
avg_fBodyGyro_std_X	numeric	0	1	-0.5149	-3.9e-01	0.1966	-0.3701956492	0.130954390	[REDACTED]	walking_downstairs
avg_fBodyGyro_std_X	numeric	0	1	-0.9926	-9.9e-01	-0.9427	-0.9814627285	0.011163251	[REDACTED]	sitting
avg_fBodyGyro_std_X	numeric	0	1	-0.9875	-9.5e-01	-0.8844	-0.9464251218	0.031217548	[REDACTED]	standing
avg_fBodyGyro_std_X	numeric	0	1	-0.9947	-9.8e-01	-0.8823	-0.9688896599	0.025399107	[REDACTED]	laying
avg_fBodyGyro_std_Y	numeric	0	1	-0.6547	-4.4e-01	0.2866	-0.3376616585	0.248323513	[REDACTED]	walking
avg_fBodyGyro_std_Y	numeric	0	1	-0.5982	-3.8e-01	0.6462	-0.2915999268	0.299727420	[REDACTED]	walking_upstairs
avg_fBodyGyro_std_Y	numeric	0	1	-0.6915	-3.8e-01	0.1261	-0.3598509353	0.203615519	[REDACTED]	walking_downstairs
avg_fBodyGyro_std_Y	numeric	0	1	-0.9873	-9.7e-01	-0.9106	-0.9634098118	0.018124840	[REDACTED]	sitting
avg_fBodyGyro_std_Y	numeric	0	1	-0.9944	-9.6e-01	-0.9012	-0.9591942451	0.022215838	[REDACTED]	standing
avg_fBodyGyro_std_Y	numeric	0	1	-0.9922	-9.6e-01	-0.9231	-0.9608839198	0.017102702	[REDACTED]	laying
avg_fBodyGyro_std_Z	numeric	0	1	-0.7165	-4.2e-01	-0.1430	-0.4045673587	0.136434396	[REDACTED]	walking
avg_fBodyGyro_std_Z	numeric	0	1	-0.7299	-3.1e-01	0.5225	-0.2827398040	0.257748063	[REDACTED]	walking_upstairs
avg_fBodyGyro_std_Z	numeric	0	1	-0.6217	-4.1e-01	0.1828	-0.3736575490	0.171261220	[REDACTED]	walking_downstairs
avg_fBodyGyro_std_Z	numeric	0	1	-0.9828	-9.6e-01	-0.9306	-0.9596601334	0.014361504	[REDACTED]	sitting
avg_fBodyGyro_std_Z	numeric	0	1	-0.9867	-9.6e-01	-0.9149	-0.9600589043	0.022211281	[REDACTED]	standing
avg_fBodyGyro_std_Z	numeric	0	1	-0.9865	-9.7e-01	-0.9155	-0.9657957657	0.017702118	[REDACTED]	laying
avg_fBodyAccMag_mean	numeric	0	1	-0.5661	-3.0e-01	0.0322	-0.2698829480	0.151742465	[REDACTED]	walking
avg_fBodyAccMag_mean	numeric	0	1	-0.5279	-2.4e-01	-0.0760	-0.2525770858	0.123974918	[REDACTED]	walking_upstairs
avg_fBodyAccMag_mean	numeric	0	1	-0.2882	1.5e-01	0.5866	0.1553359982	0.183217187	[REDACTED]	walking_downstairs
avg_fBodyAccMag_mean	numeric	0	1	-0.9848	-9.5e-01	-0.8977	-0.9506936846	0.020588551	[REDACTED]	sitting
avg_fBodyAccMag_mean	numeric	0	1	-0.9854	-9.6e-01	-0.9046	-0.9550186994	0.021333324	[REDACTED]	standing
avg_fBodyAccMag_mean	numeric	0	1	-0.9868	-9.6e-01	-0.7745	-0.9462637358	0.042315058	[REDACTED]	laying
avg_fBodyAccMag_std	numeric	0	1	-0.6512	-4.6e-01	-0.3248	-0.4772884556	0.091294459	[REDACTED]	walking
avg_fBodyAccMag_std	numeric	0	1	-0.5361	-3.9e-01	-0.1433	-0.3587506223	0.095854783	[REDACTED]	walking_upstairs
avg_fBodyAccMag_std	numeric	0	1	-0.3594	-6.0e-02	0.1787	-0.0677678754	0.138698753	[REDACTED]	walking_downstairs

Codebook metadata										
avg_fBodyAccMag_std	numeric	0	1	-0.9822	-9.4e-01	-0.8692	-0.9398319519	0.026831513	[REDACTED]	sitting
avg_fBodyAccMag_std	numeric	0	1	-0.9823	-9.5e-01	-0.8867	-0.9487057680	0.024193935	[REDACTED]	standing
avg_fBodyAccMag_std	numeric	0	1	-0.9876	-9.5e-01	-0.6514	-0.9334350847	0.065842123	[REDACTED]	laying
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.0368	1.7e-01	0.3932	0.1877457030	0.101143215	[REDACTED]	walking
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.3123	-1.9e-02	0.2937	-0.0415197652	0.134668615	[REDACTED]	walking_upstairs
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.1722	2.6e-02	0.2291	0.0315468788	0.101465534	[REDACTED]	walking_downstairs
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.0806	1.2e-01	0.3046	0.1114164035	0.103349894	[REDACTED]	sitting
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.1115	4.6e-02	0.2846	0.0492203372	0.099704221	[REDACTED]	standing
avg_fBodyAccMag_meanFreq	numeric	0	1	-0.2416	1.1e-01	0.4358	0.1183594955	0.171251332	[REDACTED]	laying
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.5646	-2.2e-01	0.0730	-0.2087940666	0.173744314	[REDACTED]	walking
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.6548	-3.4e-01	-0.0458	-0.3416676276	0.142588845	[REDACTED]	walking_upstairs
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.4716	1.0e-02	0.5384	0.0186013213	0.207908735	[REDACTED]	walking_downstairs
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.9914	-9.8e-01	-0.9483	-0.9779876653	0.011404526	[REDACTED]	sitting
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.9925	-9.7e-01	-0.9400	-0.9705782119	0.015342612	[REDACTED]	standing
avg_fBodyAccJerkMag_mean	numeric	0	1	-0.9940	-9.8e-01	-0.9333	-0.9732787094	0.013524222	[REDACTED]	laying
avg_fBodyAccJerkMag_std	numeric	0	1	-0.6512	-4.6e-01	-0.3248	-0.4772884556	0.091294459	[REDACTED]	walking
avg_fBodyAccJerkMag_std	numeric	0	1	-0.5361	-3.9e-01	-0.1433	-0.3587506223	0.095854783	[REDACTED]	walking_upstairs
avg_fBodyAccJerkMag_std	numeric	0	1	-0.3594	-6.0e-02	0.1787	-0.0677678754	0.138698753	[REDACTED]	walking_downstairs
avg_fBodyAccJerkMag_std	numeric	0	1	-0.9822	-9.4e-01	-0.8692	-0.9398319519	0.026831513	[REDACTED]	sitting
avg_fBodyAccJerkMag_std	numeric	0	1	-0.9823	-9.5e-01	-0.8867	-0.9487057680	0.024193935	[REDACTED]	standing
avg_fBodyAccJerkMag_std	numeric	0	1	-0.9876	-9.5e-01	-0.6514	-0.9334350847	0.065842123	[REDACTED]	laying
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	-0.1172	9.3e-02	0.2075	0.0765791388	0.080395070	[REDACTED]	walking
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	-0.0890	5.3e-02	0.2969	0.0691672782	0.094805654	[REDACTED]	walking_upstairs
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	-0.1252	2.3e-02	0.1814	0.0247422382	0.079475180	[REDACTED]	walking_downstairs
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	0.0975	2.8e-01	0.4591	0.2783231886	0.077125328	[REDACTED]	sitting

Codebook metadata											
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	-0.0061	2.8e-01	0.4268	0.2490026979	0.104835234		standing	
avg_fBodyAccJerkMag_meanFreq	numeric	0	1	0.1571	2.7e-01	0.4881	0.2774607712	0.083555213		laying	
avg_fBodyGyroMag_mean	numeric	0	1	-0.6692	-4.6e-01	0.1851	-0.4113631295	0.192382455		walking	
avg_fBodyGyroMag_mean	numeric	0	1	-0.6540	-4.8e-01	0.0489	-0.4437068403	0.153502454		walking_upstairs	
avg_fBodyGyroMag_mean	numeric	0	1	-0.6047	-3.4e-01	0.2040	-0.2838437770	0.185863072		walking_downstairs	
avg_fBodyGyroMag_mean	numeric	0	1	-0.9865	-9.7e-01	-0.9297	-0.9632679862	0.015659473		sitting	
avg_fBodyGyroMag_mean	numeric	0	1	-0.9846	-9.6e-01	-0.8794	-0.9470698398	0.028629212		standing	
avg_fBodyGyroMag_mean	numeric	0	1	-0.9843	-9.6e-01	-0.8622	-0.9533430250	0.025313219		laying	
avg_fBodyGyroMag_std	numeric	0	1	-0.7211	-5.1e-01	-0.0615	-0.4755814222	0.165229612		walking	
avg_fBodyGyroMag_std	numeric	0	1	-0.5696	-4.4e-01	0.2367	-0.3796334688	0.181857335		walking_upstairs	
avg_fBodyGyroMag_std	numeric	0	1	-0.5338	-3.9e-01	0.0320	-0.3583559566	0.117074957		walking_downstairs	
avg_fBodyGyroMag_std	numeric	0	1	-0.9813	-9.5e-01	-0.8958	-0.9501492790	0.020528336		sitting	
avg_fBodyGyroMag_std	numeric	0	1	-0.9785	-9.4e-01	-0.8491	-0.9296487522	0.038631208		standing	
avg_fBodyGyroMag_std	numeric	0	1	-0.9815	-9.5e-01	-0.8243	-0.9405652186	0.033869393		laying	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.7703	-5.8e-01	0.1466	-0.5167796707	0.201823113		walking	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.8262	-6.7e-01	-0.4504	-0.6523848590	0.111872948		walking_upstairs	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.7442	-4.7e-01	0.0747	-0.4326376300	0.200383298		walking_downstairs	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.9952	-9.9e-01	-0.9520	-0.9848526913	0.009698071		sitting	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.9948	-9.8e-01	-0.9296	-0.9745118440	0.015107209		standing	
avg_fBodyGyroJerkMag_mean	numeric	0	1	-0.9976	-9.8e-01	-0.9424	-0.9771449316	0.012736171		laying	
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.7736	-5.7e-01	0.2878	-0.5146695542	0.224408720		walking	
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.8609	-7.1e-01	-0.4559	-0.6985789983	0.100834188		walking_upstairs	
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.7634	-4.9e-01	-0.0399	-0.4831485704	0.185504766		walking_downstairs	
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.9950	-9.9e-01	-0.9512	-0.9839504183	0.010014645		sitting	
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.9947	-9.8e-01	-0.9272	-0.9730230929	0.015945431		standing	

Codebook metadata										
avg_fBodyGyroJerkMag_std	numeric	0	1	-0.9976	-9.8e-01	-0.9327	-0.9757316763	0.013828712		laying
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.0680	1.2e-02	0.0739	0.0139194230	0.038536170		walking
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.0316	3.1e-02	0.1292	0.0367802332	0.039836332		walking_upstairs
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.1630	-4.3e-02	0.0768	-0.0396543795	0.049930832		walking_downstairs
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.0314	1.3e-02	0.0424	0.0117526924	0.017720086		sitting
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.0148	9.4e-03	0.0259	0.0064624399	0.010512941		standing
avg_angle_tBodyAccMeangravity	numeric	0	1	-0.0245	5.4e-03	0.0683	0.0100740060	0.021000369		laying
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.1027	-5.1e-03	0.0971	-0.0075525555	0.044777440		walking
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.0979	2.5e-03	0.1152	0.0034218268	0.054380184		walking_upstairs
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.1206	-3.2e-02	0.1064	-0.0185758707	0.055040366		walking_downstairs
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.0388	-8.9e-04	0.0459	0.0015237872	0.021392685		sitting
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.0238	1.3e-02	0.0412	0.0100586922	0.017928259		standing
avg_angle_tBodyAccJerkMeangravityMean	numeric	0	1	-0.0392	1.2e-02	0.2033	0.0149874355	0.041854270		laying
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.1376	-2.7e-02	0.0991	-0.0190371992	0.065013659		walking
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.1201	5.5e-02	0.1824	0.0380767709	0.093653634		walking_upstairs
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.2237	-7.1e-02	0.0506	-0.0776179368	0.075548446		walking_downstairs
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.0944	-3.8e-02	0.0503	-0.0363024519	0.031516440		sitting
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.0829	1.2e-02	0.1304	0.0158783268	0.052572522		standing
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0	1	-0.0641	1.3e-02	0.0844	0.0107634539	0.036724825		laying
avg_angle_XgravityMean	numeric	0	1	-0.9171	-7.7e-01	-0.4978	-0.7618985696	0.090850323		walking
avg_angle_XgravityMean	numeric	0	1	-0.7923	-6.4e-01	-0.3797	-0.6351944736	0.110420932		walking_upstairs
avg_angle_XgravityMean	numeric	0	1	-0.9471	-7.8e-01	-0.5266	-0.7794059294	0.086853818		walking_downstairs
avg_angle_XgravityMean	numeric	0	1	-0.9307	-7.4e-01	-0.3045	-0.7106746596	0.119474853		sitting
avg_angle_XgravityMean	numeric	0	1	-0.9235	-7.9e-01	-0.6016	-0.7783182585	0.080123286		standing
avg_angle_XgravityMean	numeric	0	1	0.3453	5.4e-01	0.7378	0.5196525966	0.110364069		laying

Codebook metadata

name	data_type	value_labels	n_missing	complete_rate	min	median	max	mean	sd	hist	activity	label
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.1376	-2.7e-02	0.0991	-0.0190371992	0.065013659	██████	walking			
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.1201	5.5e-02	0.1824	0.0380767709	0.093653634	██████	walking_upstairs			
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.2237	-7.1e-02	0.0506	-0.0776179368	0.075548446	██████	walking_downstairs			
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.0944	-3.8e-02	0.0503	-0.0363024519	0.031516440	██████	sitting			
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.0829	1.2e-02	0.1304	0.0158783268	0.052572522	██████	standing			
avg_angle_tBodyGyroJerkMeangravityMean	numeric	0 1	-0.0641	1.3e-02	0.0844	0.0107634539	0.036724825	██████	laying			
avg_angle_XgravityMean	numeric	0 1	-0.9171	-7.7e-01	-0.4978	-0.7618985696	0.090850323	██████	walking			
avg_angle_XgravityMean	numeric	0 1	-0.7923	-6.4e-01	-0.3797	-0.6351944736	0.110420932	██████	walking_upstairs			
avg_angle_XgravityMean	numeric	0 1	-0.9471	-7.8e-01	-0.5266	-0.7794059294	0.086853818	██████	walking_downstairs			
avg_angle_XgravityMean	numeric	0 1	-0.9307	-7.4e-01	-0.3045	-0.7106746596	0.119474853	██████	sitting			
avg_angle_XgravityMean	numeric	0 1	-0.9235	-7.9e-01	-0.6016	-0.7783182585	0.080123286	██████	standing			
avg_angle_XgravityMean	numeric	0 1	0.3453	5.4e-01	0.7378	0.5196525966	0.110364069	██████	laying			
avg_angle_YgravityMean	numeric	0 1	0.1053	2.2e-01	0.3402	0.2180960902	0.059433350	██████	walking			
avg_angle_YgravityMean	numeric	0 1	0.1094	2.8e-01	0.4248	0.2794555081	0.072395394	██████	walking_upstairs			
avg_angle_YgravityMean	numeric	0 1	0.1081	2.0e-01	0.3311	0.2012822771	0.059154389	██████	walking_downstairs			
avg_angle_YgravityMean	numeric	0 1	-0.1763	-3.2e-03	0.1607	0.0070895333	0.084256724	██████	sitting			
avg_angle_YgravityMean	numeric	0 1	0.0910	2.1e-01	0.3379	0.2058170331	0.065230304	██████	standing			
avg_angle_YgravityMean	numeric	0 1	-0.8746	-4.8e-01	0.2138	-0.4398203403	0.278480478	██████	laying			
avg_angle_ZgravityMean	numeric	0 1	-0.1112	6.7e-02	0.3251	0.0618409201	0.095345884	██████	walking			
avg_angle_ZgravityMean	numeric	0 1	-0.0805	1.2e-01	0.3904	0.1253373114	0.120313530	██████	walking_upstairs			
avg_angle_ZgravityMean	numeric	0 1	-0.1335	6.3e-02	0.3038	0.0575532905	0.092998267	██████	walking_downstairs			
avg_angle_ZgravityMean	numeric	0 1	-0.3481	-8.0e-02	0.1179	-0.0885746516	0.099962538	██████	sitting			
avg_angle_ZgravityMean	numeric	0 1	-0.1202	1.2e-02	0.2604	0.0271464649	0.088170570	██████	standing			
avg_angle_ZgravityMean	numeric	0 1	-0.8736	-4.7e-01	0.1059	-0.4259205467	0.262454123	██████	laying			