**Code Book for Human Activity Recognition Using Smartphones Data Set**

Course Project for *Getting and Cleaning Data*

Prepared by Rui Zou, Nov 17, 2014

The experiment was conducted by Jorge L. Reyes-Ortiz, Davide Anguita, Alessandro Ghio, Luca Oneto at Smartlab - Non Linear Complex Systems Laboratory   
of UniversitÃ  degli Studi di Genova,, Italy.

The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years. Each person performed six activities (WALKING, WALKING\_UPSTAIRS, WALKING\_DOWNSTAIRS, SITTING, STANDING, LAYING) wearing a smartphone (Samsung Galaxy S II) on the waist. Using its embedded accelerometer and gyroscope, 3-axial linear acceleration and 3-axial angular velocity have been captured. The sensor signals (accelerometer and gyroscope) were pre-processed and 561 features have been extracted. The experiments have been video-recorded to label the data manually. The obtained dataset has been randomly partitioned into two sets, where 70% of the subjects was selected for generating the training data and 30% the test data.   
  
In this project the training and the test sets have been merged and cleaned in one data set, then the average of each variable for each activity and each subject has been calculated and formed into new variables, then outputted into a new tidy data set for further analysis. There are 180 records for six activities of each 30 subjects. The spreadsheet describes the variables in the tidy data set.

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| --- | --- | --- | --- |
| **Variables** | **Value labels** | **data types** | **Variable description** |
| subject | from 1 to 30 | numerical | 30 subjects are in the experiment |
| activity | WALKING WALKING\_UPSTAIRS WALKING\_DOWNSTAIRS  SITTING STANDING  LAYING | character | Each person performed six activities. |
| tBodyAcc.mean...X | average value for each  activity and each subject | numerical | one of the features extracted  from experiment |
| tBodyAcc.mean...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.mean...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.std...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.std...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.std...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.mad...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.mad...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.mad...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.max...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.max...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.max...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.min...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.min...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.min...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.sma.. | average value for each activity and each subject | numerical | feature |
| tBodyAcc.energy...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.energy...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.energy...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.iqr...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.iqr...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.iqr...Z | average value for each activity and each subject | numerical | feature |
| tBodyAcc.entropy...X | average value for each activity and each subject | numerical | feature |
| tBodyAcc.entropy...Y | average value for each activity and each subject | numerical | feature |
| tBodyAcc.entropy...Z | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...X.1 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...X.2 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...X.3 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...X.4 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Y.1 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Y.2 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Y.3 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Y.4 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Z.1 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Z.2 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Z.3 | average value  activity and each subject | numerical | feature |
| tBodyAcc.arCoeff...Z.4 | average value  activity and each subject | numerical | feature |
| tBodyAcc.correlation...X.Y | average value  activity and each subject | numerical | feature |
| tBodyAcc.correlation...X.Z | average value  activity and each subject | numerical | feature |
| tBodyAcc.correlation...Y.Z | average value  activity and each subject | numerical | feature |
| tGravityAcc.mean...X | average value  activity and each subject | numerical | feature |
| tGravityAcc.mean...Y | average value  activity and each subject | numerical | feature |
| tGravityAcc.mean...Z | average value  activity and each subject | numerical | feature |
| tGravityAcc.std...X | average value  activity and each subject | numerical | feature |
| tGravityAcc.std...Y | average value  activity and each subject | numerical | feature |
| tGravityAcc.std...Z | average value  activity and each subject | numerical | feature |
| tGravityAcc.mad...X | average value  activity and each subject | numerical | feature |
| tGravityAcc.mad...Y | average value  activity and each subject | numerical | feature |
| tGravityAcc.mad...Z | average value  activity and each subject | numerical | feature |
| tGravityAcc.max...X | average value  activity and each subject | numerical | feature |
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| tGravityAcc.sma.. | average value  activity and each subject | numerical | feature |
| tGravityAcc.energy...X | average value  activity and each subject | numerical | feature |
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| tGravityAcc.iqr...X | average value  activity and each subject | numerical | feature |
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| tGravityAcc.entropy...X | average value  activity and each subject | numerical | feature |
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| tGravityAcc.arCoeff...X.1 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...X.2 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...X.3 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...X.4 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Y.1 | average value  activity and each subject | numerical | feature |
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| tGravityAcc.arCoeff...Y.3 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Y.4 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Z.1 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Z.2 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Z.3 | average value  activity and each subject | numerical | feature |
| tGravityAcc.arCoeff...Z.4 | average value  activity and each subject | numerical | feature |
| tGravityAcc.correlation...X.Y | average value  activity and each subject | numerical | feature |
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| tBodyAccJerk.mean...X | average value  activity and each subject | numerical | feature |
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| tBodyAccJerk.std...X | average value  activity and each subject | numerical | feature |
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| tBodyAccJerk.mad...X | average value  activity and each subject | numerical | feature |
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| tBodyAccJerk.energy...X | average value  activity and each subject | numerical | feature |
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| tBodyGyro.mean...X | average value  activity and each subject | numerical | feature |
| tBodyGyro.mean...Y | average value  activity and each subject | numerical | feature |
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| tBodyGyroJerk.arCoeff...Z.1 | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.arCoeff...Z.2 | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.arCoeff...Z.3 | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.arCoeff...Z.4 | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.correlation...X.Y | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.correlation...X.Z | average value  activity and each subject | numerical | feature |
| tBodyGyroJerk.correlation...Y.Z | average value  activity and each subject | numerical | feature |
| tBodyAccMag.mean.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.std.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.mad.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.max.. | average value  activity and each subject | numerical | feature |
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| tBodyAccMag.sma.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.energy.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.iqr.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.entropy.. | average value  activity and each subject | numerical | feature |
| tBodyAccMag.arCoeff..1 | average value  activity and each subject | numerical | feature |
| tBodyAccMag.arCoeff..2 | average value  activity and each subject | numerical | feature |
| tBodyAccMag.arCoeff..3 | average value  activity and each subject | numerical | feature |
| tBodyAccMag.arCoeff..4 | average value  activity and each subject | numerical | feature |
| tGravityAccMag.mean.. | average value  activity and each subject | numerical | feature |
| tGravityAccMag.std.. | average value  activity and each subject | numerical | feature |
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| tBodyAccJerkMag.mean.. | average value  activity and each subject | numerical | feature |
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| tBodyAccJerkMag.arCoeff..2 | average value  activity and each subject | numerical | feature |
| tBodyAccJerkMag.arCoeff..3 | average value  activity and each subject | numerical | feature |
| tBodyAccJerkMag.arCoeff..4 | average value  activity and each subject | numerical | feature |
| tBodyGyroMag.mean.. | average value  activity and each subject | numerical | feature |
| tBodyGyroMag.std.. | average value  activity and each subject | numerical | feature |
| tBodyGyroMag.mad.. | average value  activity and each subject | numerical | feature |
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| fBodyAcc.mean...X | average value  activity and each subject | numerical | feature |
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| fBodyAcc.entropy...Y | average value  activity and each subject | numerical | feature |
| fBodyAcc.entropy...Z | average value  activity and each subject | numerical | feature |
| fBodyAcc.maxInds.X | average value  activity and each subject | numerical | feature |
| fBodyAcc.maxInds.Y | average value  activity and each subject | numerical | feature |
| fBodyAcc.maxInds.Z | average value  activity and each subject | numerical | feature |
| fBodyAcc.meanFreq...X | average value  activity and each subject | numerical | feature |
| fBodyAcc.meanFreq...Y | average value  activity and each subject | numerical | feature |
| fBodyAcc.meanFreq...Z | average value  activity and each subject | numerical | feature |
| fBodyAcc.skewness...X | average value  activity and each subject | numerical | feature |
| fBodyAcc.kurtosis...X | average value  activity and each subject | numerical | feature |
| fBodyAcc.skewness...Y | average value  activity and each subject | numerical | feature |
| fBodyAcc.kurtosis...Y | average value  activity and each subject | numerical | feature |
| fBodyAcc.skewness...Z | average value  activity and each subject | numerical | feature |
| fBodyAcc.kurtosis...Z | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.8 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...9.16 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.24 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.32 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.40 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...41.48 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.56 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...57.64 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.16 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.32 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.48 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.64 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.24 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.48 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.8.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...9.16.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.24.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.32.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.40.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...41.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.56.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...57.64.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.16.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.32.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.64.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.24.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.8.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...9.16.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.24.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.32.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.40.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...41.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.56.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...57.64.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.16.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...17.32.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...33.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...49.64.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...1.24.2 | average value  activity and each subject | numerical | feature |
| fBodyAcc.bandsEnergy...25.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mean...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mean...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mean...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.std...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.std...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.std...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mad...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mad...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.mad...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.max...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.max...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.max...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.min...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.min...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.min...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.sma.. | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.energy...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.energy...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.energy...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.iqr...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.iqr...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.iqr...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.entropy...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.entropy...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.entropy...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.maxInds.X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.maxInds.Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.maxInds.Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.meanFreq...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.meanFreq...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.meanFreq...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.skewness...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.kurtosis...X | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.skewness...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.kurtosis...Y | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.skewness...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.kurtosis...Z | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.8 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...9.16 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.24 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.32 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.40 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...41.48 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.56 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...57.64 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.16 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.32 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.48 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.64 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.24 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.48 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.8.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...9.16.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.24.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.32.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.40.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...41.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.56.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...57.64.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.16.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.32.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.64.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.24.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.48.1 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.8.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...9.16.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.24.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.32.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.40.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...41.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.56.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...57.64.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.16.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...17.32.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...33.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...49.64.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...1.24.2 | average value  activity and each subject | numerical | feature |
| fBodyAccJerk.bandsEnergy...25.48.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.mean...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.mean...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.mean...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.std...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.std...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.std...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.mad...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.mad...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.mad...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.max...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.max...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.max...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.min...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.min...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.min...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.sma.. | average value  activity and each subject | numerical | feature |
| fBodyGyro.energy...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.energy...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.energy...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.iqr...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.iqr...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.iqr...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.entropy...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.entropy...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.entropy...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.maxInds.X | average value  activity and each subject | numerical | feature |
| fBodyGyro.maxInds.Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.maxInds.Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.meanFreq...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.meanFreq...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.meanFreq...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.skewness...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.kurtosis...X | average value  activity and each subject | numerical | feature |
| fBodyGyro.skewness...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.kurtosis...Y | average value  activity and each subject | numerical | feature |
| fBodyGyro.skewness...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.kurtosis...Z | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.8 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...9.16 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.24 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...25.32 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...33.40 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...41.48 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.56 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...57.64 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.16 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.32 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...33.48 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.64 | average value  activity and each subject | numerical | feature |
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| fBodyGyro.bandsEnergy...25.48 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.8.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...9.16.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.24.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...25.32.1 | average value  activity and each subject | numerical | feature |
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| fBodyGyro.bandsEnergy...41.48.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.56.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...57.64.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.16.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.32.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...33.48.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.64.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.24.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...25.48.1 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.8.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...9.16.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.24.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...25.32.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...33.40.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...41.48.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.56.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...57.64.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.16.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...17.32.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...33.48.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...49.64.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...1.24.2 | average value  activity and each subject | numerical | feature |
| fBodyGyro.bandsEnergy...25.48.2 | average value  activity and each subject | numerical | feature |
| fBodyAccMag.mean.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.std.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.mad.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.max.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.min.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.sma.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.energy.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.iqr.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.entropy.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.maxInds | average value  activity and each subject | numerical | feature |
| fBodyAccMag.meanFreq.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.skewness.. | average value  activity and each subject | numerical | feature |
| fBodyAccMag.kurtosis.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.mean.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.std.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.mad.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.max.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.min.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.sma.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.energy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.iqr.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.entropy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.maxInds | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.meanFreq.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.skewness.. | average value  activity and each subject | numerical | feature |
| fBodyBodyAccJerkMag.kurtosis.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.mean.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.std.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.mad.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.max.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.min.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.sma.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.energy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.iqr.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.entropy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.maxInds | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.meanFreq.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.skewness.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroMag.kurtosis.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.mean.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.std.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.mad.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.max.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.min.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.sma.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.energy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.iqr.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.entropy.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.maxInds | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.meanFreq.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.skewness.. | average value  activity and each subject | numerical | feature |
| fBodyBodyGyroJerkMag.kurtosis.. | average value  activity and each subject | numerical | feature |
| angle.tBodyAccMean.gravity. | average value  activity and each subject | numerical | feature |
| angle.tBodyAccJerkMean..gravityMean. | average value  activity and each subject | numerical | feature |
| angle.tBodyGyroMean.gravityMean. | average value  activity and each subject | numerical | feature |
| angle.tBodyGyroJerkMean.gravityMean. | average value  activity and each subject | numerical | feature |
| angle.X.gravityMean. | average value  activity and each subject | numerical | feature |
| angle.Y.gravityMean. | average value  activity and each subject | numerical | feature |
| angle.Z.gravityMean. | average value  activity and each subject | numerical | feature |