The CodeBook

Data Overview:

This is the description if tidy data set Tidy_HAR_Summary.txt extracted from the HAR data located at the University of Irvine data repository. The Tidy_HAR_Summary.txt file was generated using am R script (run_analysis.R).

This is a brief description of the extracted data set. The original data set is described at the site below for additional information about the units. https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip

Variable Name	Description
ActivityType	Factor with 6 levels WALKING, WALKING_UPSTAIRS, WALKING_DOWNSTAIRS, SITTING, STANDING, LAYING
Subject	Each row identifies the subject who performed the activity for each window sample. Its range is from 1 to 30
Time.body.accelerometer.mean.X	Average of Mean Value time Domain BodyAcceleration in x direction
Time.body.accelerometer.mean.Y	Average of Mean Value time Domain BodyAcceleration in Y direction
Time.body.accelerometer.mean.X	Average of Mean Value time Domain BodyAcceleration in Z direction
Time.body.accelerometer.std.X	Average of Standard deviation time Domain BodyAcceleration in x direction
Time.body.accelerometer.std.Y	Average of Standard deviation time Domain BodyAcceleration in Y direction
Time.body.accelerometer.std.Z	Average of Standard deviation time Domain BodyAcceleration in Z direction
GravityAcc.mean.X	Average of Mean Value time Domain Gravitational Acceleration along x direction
GravityAcc.mean.Y	Average of Mean Value time Domain Gravitational Acceleration along Y direction
GravityAcc.mean.Z	Average of Mean Value time Domain Gravitational Acceleration along Z direction
tGravityAcc,std.X	Average of Standard deviation time Domain Gravitational Acceleration along x direction
tGravityAcc.std.Y	Average of Standard deviation time Domain Gravitational Acceleration along Y direction

tGravityAcc.std.Z	Average of Standard deviation time Domain Gravitational Acceleration along Z direction
Time.body.accelerometer.jerk.mean.X	Average of Mean Value time Domain BodyAcceleration Jerk in x direction
Time.body.accelerometer.jerk.mean.Y	Average of Mean Value time Domain BodyAcceleration Jerk in Y direction
Time.body.accelerometer.jerk.mean.Z	Average of Mean Value time Domain BodyAcceleration Jerk in Z direction
Time.body.accelerometer.jerk.std.X	Average of Standard deviation time Domain BodyAcceleration Jerk in x direction
Time.body.accelerometer.jerk.std.Y	Average of Standard deviation time Domain BodyAcceleration Jerk in Y direction
Time.body.accelerometer.jerk.std.Z	Average of Standard deviation time Domain BodyAcceleration Jerk in Z direction
Time.body.gyroscope.mean.X	Average of Mean Value time Domain Body Gyroscope in x direction
Time.body.gyroscope.mean.Y	Average of Mean Value time Domain Body Gyroscope in Y direction
Time.body.gyroscope.mean.Z	Average of Mean Value time Domain Body Gyroscope in Z direction
Time.body.gyroscope.std.X	Average of Standard deviation time Domain Body Gyroscope in x direction
Time.body.gyroscope.std.Y	Average of Standard deviation time Domain Body Gyroscope in Y direction
Time.body.gyroscope.std.Z	Average of Standard deviation time Domain Body Gyroscope in Z direction
Time.body.gyroscope.jerk.mean.X	Average of Mean Value time Domain Body GyroscopeJerk signal in x direction
Time.body.gyroscope.jerk.mean.Y	Average of Mean Value time Domain Body GyroscopeJerk signal in Y direction
Time.body.gyroscope.jerk.mean.Z	Average of Mean Value time Domain Body GyroscopeJerk signal in Z direction
Time.body.gyroscope.jerk.std.X	Average of Standard deviation time Domain Body GyroscopeJerk signal in x direction
Time.body.gyroscope.jerk.std.Y	Average of Standard deviation time Domain Body GyroscopeJerk signal in Y direction
Time.body.gyroscope.jerk.std.Z	Average of Standard deviation time Domain Body GyroscopeJerk signal in Z direction

Time.body.accelerometerMag.mean	Average of Mean Value time Domain BodyAcceleration magnitude
Time.body.accelerometerMag.std	Average of Standard deviation time Domain BodyAcceleration magnitude
tGravityAccMag.mean	Average of Mean Value time Domain GravityAcceleration magnitude
tGravityAccMag.std	Average of Standard deviation time Domain GravityAcceleration magnitude
Time.body.accelerometer.jerkMag.mean	Average of Mean Value time Domain BodyAcceleration jerk magnitude
Time.body.accelerometer.jerkMag.std	Average of Standard deviation time Domain BodyAcceleration jerk magnitude
Time.body.gyroscopeMag.mean	Average of Mean Value time Domain Body Gyroscope Magnitude
Time.body.gyroscopeMag.std	Average of Standard deviation time Domain Body Gyroscope Magnitude
Time.body.gyroscope.jerkMag.mean	Average of Mean Value time Domain Body GyroscopeJerk magnitude
Time.body.gyroscope.jerkMag.std	Average of Standard deviation time Domain Body GyroscopeJerk magnitude
The following are corresponding values in frequency domain and respective XYZ components	
Frequency.domain.body.accelerometer.mean.X	Average of Mean Value Frequency Domain Body Acceleration in x direction
Frequency.domain.body.accelerometer.mean.Y	Average of Mean Value Frequency Domain Body Acceleration in Y direction
Frequency.domain.body.accelerometer.mean.Z	Average of Mean Value Frequency Domain Body Acceleration in Z direction
Frequency.domain.body.accelerometer.std.X	Average of Standard Deviation in Frequency Domain Body Acceleration in x direction

Frequency.domain.body.accelerometer.std.Y	Average of Standard Deviation in Frequency Domain Body Acceleration in Y direction
Frequency.domain.body.accelerometer.std.Z	Average of Standard Deviation in Frequency Domain Body Acceleration in Z direction
Frequency.domain.body.accelerometer.jerk.mean.Y	Average of Mean Value frequency Domain Body Acceleration Jerk in x direction
Frequency.domain.body.accelerometer.jerk.mean.Z	Average of Mean Value frequency Domain Body Acceleration Jerk in Y direction
Frequency.domain.body.accelerometer.jerk.mean.X	Average of Mean Value frequency Domain Body Acceleration Jerk in Z direction
Frequency.domain.body.accelerometer. jerk.std.X	Average of Standard Deviation in Frequency Domain Body Acceleration Jerk in x direction
Frequency.domain.body.accelerometer.jerk.std.Y	Average of Standard Deviation in Frequency Domain Body Acceleration Jerk in Y direction
Frequency.domain.body.accelerometer.jerk.std.Z	Average of Standard Deviation in Frequency Domain Body Acceleration Jerk in Z direction
Frequency.domain.body.gyrpscope.mean.X	Average of Mean Value frequency Domain Body Gyroscope in x direction
Frequency.domain.body.gyrpscope.meanY	Average of Mean Value frequency Domain Body Gyroscope in Y direction
Frequency.domain.body.gyroscope.mean.Z	Average of Mean Value frequency Domain Body Gyroscope in Z direction
Frequency.domain.body.gyrpscope.std.X	Average of Standard Deviation in Frequency Domain Body Gyroscope in x direction
Frequency.domain.body.gyroscope.std.Y	Average of Standard Deviation in Frequency Domain Body Gyroscope in Y direction

Frequency.domain.body.gyrooscope.std.Z	Average of Standard Deviation in Frequency Domain Body Gyroscope in Z direction
Frequency.domain.body.accelerometerMag.mean	Average of Mean Value frequency Domain Body Acceleration magnitude
Frequency.domain.body.accelerometerMag.std s	Average of Standard Deviation in Frequency Domain Body Acceleration magnitude
tBodyBodyAcc.jerkMag.mean	Average of Mean Value frequency Domain Body Acceleration jerk magnitude
tBodyBiodyAcc.jerkMag. std	Average of Standard Deviation in Frequency Domain Body Acceleration jerk magnitude
fBodyBodyAcc.jerkMag.mean.frequency	Average of Mean Value frequency Domain Body Body Gyroscope Magnitude
fBodyBodyAcc.jerkMag.mean.frequency	Average of Standard Deviation in Frequency Domain Body Body Gyroscope Magnitude
BodyBodyGyroMag.mean	Average of Mean Value frequency Domain Body Body Gyroscopejerk magnitude
`fBodyBodyGyroJerkMagStd`	Average of Standard Deviation in Frequency Domain Body Body Gyroscopejerk magnitude