# Codebook for Tidy Dataset

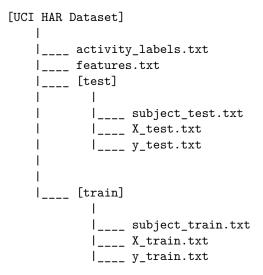
Krishnakanth Allika

2020-04-29 20:23:04

## Data origins and transformations

Source: UCI HAR (Human Activity Recognition)

#### Original data structure



#### **Data Transformation Flow (left to right)**

activity_labels					
I_	test_activities _				
y_test	(Step 1)	 			
features Mean,Std _ (Step 2)	   test_MeanStd _	1	test set		
X_test					
N_0050	1 (bucp 0)	i	(buch 1)	İ	
subject_test				ļ ,	
activity_labels	train_activities _				Tidy_Dataset (Step 6)
y_train		   		İ	1
features Mean,Std _		İ		į	
X_train	train_MeanStd	   	train_set (Step 5)		
subject_train		i			

#### Steps:

- 1. Add activity labels to y\_test. Output: test\_activities
- 2. Identify and extract features that were measurements on mean and standard deviation. Output:  $f\_MeanStd$
- 3. Extract specific columns from X\_test that only contained the above features. Output: test\_MeanStd
- 4. Add subject\_test and y\_test columns to the above to create test\_set. Output: test\_set
- 5. Follow the same steps to create train\_set. Output: train\_set
- 6. Combine test\_set and train\_set to form a full\_dataset. Output: Tidy\_Dataset

#### **Dataset overview**

The dataset examined has the following dimensions:

Feature	Result
Number of observations	10299
Number of variables	68

## Codebook summary table

Label	Variable	Class	# unique values	Missing	Description
Subject ID Activity type	SubjectID ActivityLabel	factor factor	30 6	0.00 % 0.00 %	Participants identifier. Type of activity performed by subjects and measured across various features.
Mean of time domain measurement of body linear acceleration in X axis	tBodyAccMeanX	numeric	10292	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and A directions.
Mean of time domain mea- surement of body linear acceleration in Y axis	tBodyAccMeanY	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and 3 directions.

			# unique		
Label	Variable	Class	values	Missing	Description
Mean of time domain measurement of body linear acceleration in Z axis	tBodyAccMeanZ	numeric	10293	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measurement of body linear acceleration in X axis	tBodyAccStdX	numeric	10295	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measure- ment of body linear acceleration in Y axis	tBodyAccStdY	numeric	10297	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Standard deviation of time domain measurement of body linear acceleration in Z axis	tBodyAccStdZ	numeric	10297	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain measurement of gravity linear acceleration in X axis	tGravityAccMeanX	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain measurement of gravity linear acceleration in Y axis	tGravityAccMeanY	numeric	10298	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

			# unique		
Label	Variable	Class	values	Missing	Description
Mean of time domain measurement of gravity linear acceleration in Z axis	tGravityAccMeanZ	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measurement of gravity linear acceleration in X axis	tGravityAccStdX	numeric	10288	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measure- ment of gravity linear acceleration in Y axis	tGravityAccStdY	numeric	10293	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Standard deviation of time domain measurement of gravity linear acceleration in Z axis	tGravityAccStdZ	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain measurement of body linear acceleration jerk signals in X axis	tBodyAccJerkMeanX	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain measurement of body linear acceleration jerk signals in Y axis	<b>tBodyAccJerkMeanY</b>	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Mean of time domain measurement of body linear acceleration jerk signals in Z axis	tBodyAccJerkMeanZ	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measurement of body linear acceleration jerk signals in X axis	tBodyAccJerkStdX	numeric	10290	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
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Label	Variable	Class	values	Missing	Description
Standard deviation of time domain measurement of body linear acceleration jerk signals in Z axis	tBodyAccJerkStdZ	numeric	10293	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain measurement of body angular velocity in X axis	tBodyGyroMeanX	numeric	10298	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain mea- surement of body angular velocity in Y axis	tBodyGyroMeanY	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Mean of time domain measurement of body angular velocity in Z axis	tBodyGyroMeanZ	numeric	10297	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measurement of body angular velocity in X axis	tBodyGyroStdX	numeric	10292	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measure- ment of body angular velocity in Y axis	tBodyGyroStdY	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Standard deviation of time domain measure- ment of body angular velocity in Z axis	tBodyGyroStdZ	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain mea- surement of body angular velocity jerk signals in X axis	t Body Gyro Jerk Mean X	numeric	10295	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of time domain mea- surement of body angular velocity jerk signals in Y axis	tBodyGyroJerkMeanY	numeric	10299	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Mean of time domain measurement of body angular velocity jerk signals in Z axis	tBodyGyroJerkMeanZ	numeric	10298	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measure- ment of body angular velocity jerk signals in X axis	tBodyGyroJerkStdX	numeric	10292	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of time domain measure- ment of body angular velocity jerk signals in Y axis	tBodyGyroJerkStdY	numeric	10295	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Mean of magnitide of time domain measure- ment of body linear acceleration	tBodyAccMagMean	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean
Standard deviation of magnitide of time domain measure- ment of body linear acceleration	tBodyAccMagStd	numeric	10294	0.00 %	norm. Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.

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Label	Variable	Class	values	Missing	Description
Mean of magnitide of time domain measurement of gravity linear acceleration	tGravityAccMagMean	numeric	10296	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz.  Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of time domain measure- ment of gravity linear acceleration	tGravityAccMagStd	numeric	10294	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate gravity signals from body. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Mean of magnitide of time domain measure- ment of body linear acceleration jerk signals	tBodyAccJerkMagMean	numeric	10292	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.

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Label	Variable	Class	values	Missing	Description
Standard deviation of magnitide of time domain measure- ment of body linear acceleration jerk signals	tBodyAccJerkMagStd	numeric	10294	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Mean of magnitide of time domain measure- ment of body angular velocity	tBodyGyroMagMean	numeric	10298	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of time domain measure- ment of body angular velocity	tBodyGyroMagStd	numeric	10298	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.

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Label	Variable	Class	# unique values	Missing	Description
Mean of magnitide of time domain measure- ment of body angular velocity jerk signals	tBodyGyroJerkMagMean	numeric	10293	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of time domain measure- ment of body angular velocity jerk signals	tBodyGyroJerkMagStd	numeric	10297	0.00 %	Time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Mean of frequency domain mea- surement of body linear acceleration in X axis	fBodyAccMeanX	numeric	10295	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of frequency domain mea- surement of body linear acceleration in Y axis	fBodyAccMeanY	numeric	10292	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Mean of frequency domain mea- surement of body linear acceleration in Z axis	fBodyAccMeanZ	numeric	10295	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body linear acceleration in X axis	fBodyAccStdX	numeric	10294	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body linear acceleration in Y axis	fBodyAccStdY	numeric	10297	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain measurement of body linear acceleration in Z axis	fBodyAccStdZ	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of frequency domain mea- surement of body linear acceleration jerk signals in X axis	fBodyAccJerkMeanX	numeric	10293	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

Label	Variable	Class	# unique	Missing	Description
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Mean of frequency domain mea- surement of body linear acceleration jerk signals in Y axis	fBodyAccJerkMean <b>Y</b>	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of frequency domain mea- surement of body linear acceleration jerk signals in Z axis	fBodyAccJerkMeanZ	numeric	10294	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body linear acceleration jerk signals in X axis	fBodyAccJerkStdX	numeric	10291	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body linear acceleration jerk signals in Y axis	fBodyAccJerkStdY	numeric	10294	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body linear acceleration jerk signals in Z axis	fBodyAccJerkStdZ	numeric	10290	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Label	Variable	Class	values	Missing	Description
Mean of frequency domain mea- surement of body angular velocity in X axis	fBodyGyroMeanX	numeric	10297	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of frequency domain mea- surement of body angular velocity in Y axis	fBodyGyroMeanY	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Mean of frequency domain mea- surement of body angular velocity in Z axis	fBodyGyroMeanZ	numeric	10297	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body angular velocity in X axis	fBodyGyroStdX	numeric	10297	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.
Standard deviation of frequency domain mea- surement of body angular velocity in Y axis	fBodyGyroStdY	numeric	10293	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. XYZ is used to denote 3-axial signals in the X, Y and Z directions.

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Mean of magnitide of frequency domain mea- surement of body linear acceleration	fBodyAccMagMean	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of frequency domain mea- surement of body linear acceleration	fBodyAccMagStd	numeric	10298	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Mean of magnitide of frequency domain mea- surement of body linear acceleration jerk signals	fBodyBodyAccJerkMagMe	<b>an</b> numeric	10290	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of frequency domain mea- surement of body linear acceleration jerk signals	fBodyBodyAccJerkMagStd	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.

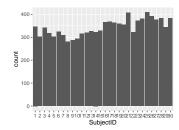
Label	Variable	Class	# unique values	Missing	Description
Mean of magnitide of frequency domain mea- surement of body angular velocity	fBodyBodyGyroMagMean	numeric	10297	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of frequency domain mea- surement of body angular velocity	fBodyBodyGyroMagStd	numeric	10296	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Mean of magnitide of frequency domain mea- surement of body angular velocity jerk signals	fBodyBodyGyroJerkMagMo	e <b>an</b> umeric	10293	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.
Standard deviation of magnitide of frequency domain mea- surement of body angular velocity jerk signals	fBodyBodyGyroJerkMagSto	<b>d</b> numeric	10292	0.00 %	A Fast Fourier Transform (FFT) was applied to some of these signals to produce frequency domain signals. Another low pass Butterworth filter with a corner frequency of 0.3 Hz. is used to separate body signals from gravity. Magnitude of these three-dimensional signals were calculated using the Euclidean norm.

# Variable list

# SubjectID

Subject ID

Feature	Result
Variable type	factor
Number of missing obs.	0 (0 %)
Number of unique values	30
Mode	"25"
Reference category	1

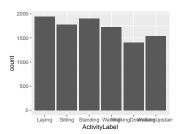


• Observed factor levels: "1", "10", "11", "12", "13", "14", "15", "16", "17", "18", "19", "2", "20", "21", "22", "23", "24", "25", "26", "27", "28", "29", "3", "30", "4", "5", "6", "7", "8", "9".

#### **ActivityLabel**

Activity type

Feature	Result
Variable type	factor
Number of missing obs.	0 (0 %)
Number of unique values	6
Mode	"Laying"
Reference category	Laying

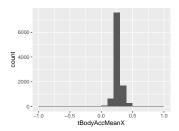


• Observed factor levels: "Laying", "Sitting", "Standing", "Walking", "WalkingDownstairs", "WalkingUpstairs".

### tBodyAccMeanX

Mean of time domain measurement of body linear acceleration in X axis

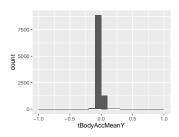
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10292
Median	0.28
1st and 3rd quartiles	0.26; 0.29
Min. and max.	-1; 1



### tBodyAccMeanY

Mean of time domain measurement of body linear acceleration in Y axis

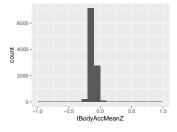
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	-0.02
1st and 3rd quartiles	-0.02; -0.01
Min. and max.	-1; 1



## tBodyAccMeanZ

Mean of time domain measurement of body linear acceleration in  ${\it Z}$  axis

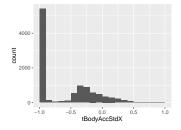
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.11
1st and 3rd quartiles	-0.12; -0.1
Min. and max.	-1; 1



## tBodyAccStdX

Standard deviation of time domain measurement of body linear acceleration in X axis

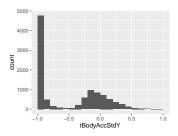
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.94
1st and 3rd quartiles	-0.99; -0.25
Min. and max.	-1; 1



## tBodyAccStdY

Standard deviation of time domain measurement of body linear acceleration in Y axis

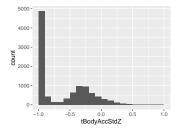
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.84
1st and 3rd quartiles	-0.98; -0.06
Min. and max.	-1; 1



## tBodyAccStdZ

Standard deviation of time domain measurement of body linear acceleration in Z axis

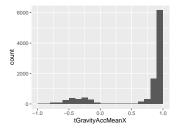
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.85
1st and 3rd quartiles	-0.98; -0.28
Min. and max.	-1; 1



## tGravityAccMeanX

Mean of time domain measurement of gravity linear acceleration in X axis

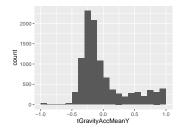
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	0.92
1st and 3rd quartiles	0.81; 0.95
Min. and max.	-1; 1



## t Gravity Acc Mean Y

Mean of time domain measurement of gravity linear acceleration in Y axis

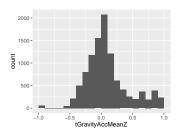
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.14
1st and 3rd quartiles	-0.24; 0.12
Min. and max.	-1; 1



## t Gravity Acc Mean Z

Mean of time domain measurement of gravity linear acceleration in Z axis

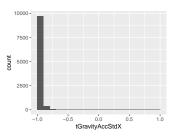
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	0.04
1st and 3rd quartiles	-0.12; 0.22
Min. and max.	-1; 1



## tGravityAccStdX

Standard deviation of time domain measurement of gravity linear acceleration in X axis

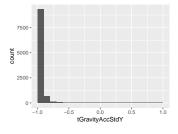
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10288
Median	-0.98
1st and 3rd quartiles	-0.99; -0.96
Min. and max.	-1; 1



## tGravityAccStdY

Standard deviation of time domain measurement of gravity linear acceleration in Y axis

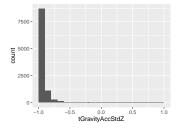
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.98
1st and 3rd quartiles	-0.99; -0.95
Min. and max.	-1; 1



## t Gravity Acc Std Z

Standard deviation of time domain measurement of gravity linear acceleration in Z axis

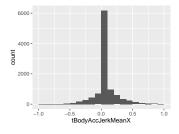
Result
numeric
0 (0 %)
10296
-0.97
-0.99; -0.93
-1; 1



## t Body Acc Jerk Mean X

Mean of time domain measurement of body linear acceleration jerk signals in X axis

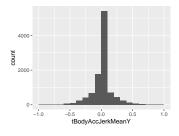
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	0.08
1st and 3rd quartiles	0.06; 0.09
Min. and max.	-1; 1



## t Body Acc Jerk Mean Y

Mean of time domain measurement of body linear acceleration jerk signals in Y axis

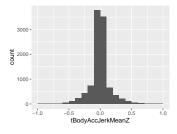
Result
numeric
0 (0 %)
10299
0.01
-0.02; 0.03
-1; 1



### t Body Acc Jerk Mean Z

Mean of time domain measurement of body linear acceleration jerk signals in Z axis

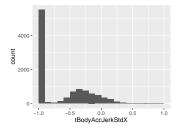
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	0
1st and 3rd quartiles	-0.03; 0.02
Min. and max.	-1; 1



### tBodyAccJerkStdX

Standard deviation of time domain measurement of body linear acceleration jerk signals in X axis

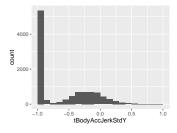
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10290
Median	-0.95
1st and 3rd quartiles	-0.99; -0.29
Min. and max.	-1; 1



## tBodyAccJerkStdY

Standard deviation of time domain measurement of body linear acceleration jerk signals in Y axis

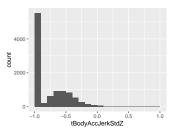
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.93
1st and 3rd quartiles	-0.99; -0.22
Min. and max.	-1; 1



### tBodyAccJerkStdZ

Standard deviation of time domain measurement of body linear acceleration jerk signals in Z axis

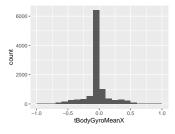
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.95
1st and 3rd quartiles	-0.99; -0.55
Min. and max.	-1; 1



## tBodyGyroMeanX

Mean of time domain measurement of body angular velocity in X axis

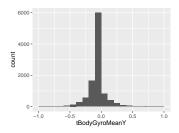
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.03
1st and 3rd quartiles	-0.05; -0.01
Min. and max.	-1; 1



## tBody Gyro Mean Y

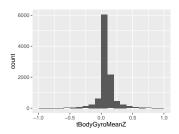
Mean of time domain measurement of body angular velocity in Y axis

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	-0.07
1st and 3rd quartiles	-0.1; -0.05
Min. and max.	-1; 1



## t Body Gyro Mean Z

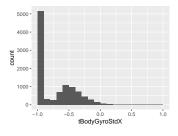
Mean of time domain measurement of body angular velocity in Z axis



## tBodyGyroStdX

Standard deviation of time domain measurement of body angular velocity in X axis

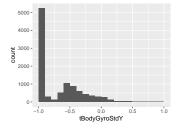
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10292
Median	-0.9
1st and 3rd quartiles	-0.99; -0.48
Min. and max.	-1; 1



## tBodyGyroStdY

Standard deviation of time domain measurement of body angular velocity in Y axis

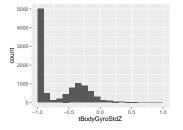
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.91
1st and 3rd quartiles	-0.98; -0.45
Min. and max.	-1; 1



## tBodyGyroStdZ

Standard deviation of time domain measurement of body angular velocity in Z axis

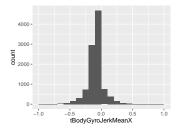
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.88
1st and 3rd quartiles	-0.99; -0.34
Min. and max.	-1; 1



## tBody Gyro Jerk Mean X

Mean of time domain measurement of body angular velocity jerk signals in X axis

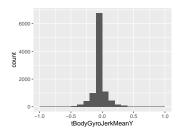
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.1
1st and 3rd quartiles	-0.12; -0.08
Min. and max.	-1; 1
Number of missing obs. Number of unique values Median 1st and 3rd quartiles	0 (0 %) 10295 -0.1 -0.12; -0.08



## tBody Gyro Jerk Mean Y

Mean of time domain measurement of body angular velocity jerk signals in Y axis

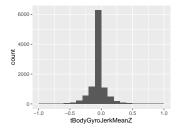
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10299
Median	-0.04
1st and 3rd quartiles	-0.06; -0.03
Min. and max.	-1; 1



## tBody Gyro Jerk Mean Z

Mean of time domain measurement of body angular velocity jerk signals in Z axis

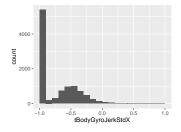
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.05
1st and 3rd quartiles	-0.08; -0.03
Min. and max.	-1; 1



## tBody Gyro Jerk Std X

Standard deviation of time domain measurement of body angular velocity jerk signals in X axis

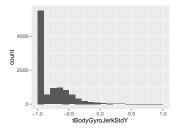
Result
numeric
0 (0 %)
10292
-0.93
-0.99; -0.49
-1; 1



## tBody Gyro Jerk Std Y

Standard deviation of time domain measurement of body angular velocity jerk signals in Y axis

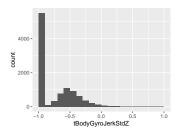
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.95
1st and 3rd quartiles	-0.99; -0.63
Min. and max.	-1; 1



## tBody Gyro Jerk StdZ

Standard deviation of time domain measurement of body angular velocity jerk signals in Z axis

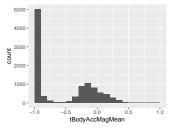
Result
numeric
0 (0 %)
10291
-0.95
-0.99; -0.51
-1; 1



## tBodyAccMagMean

Mean of magnitide of time domain measurement of body linear acceleration

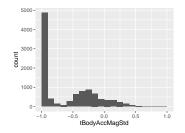
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.87
1st and 3rd quartiles	-0.98; -0.12
Min. and max.	-1; 1



## tBodyAccMagStd

Standard deviation of magnitide of time domain measurement of body linear acceleration

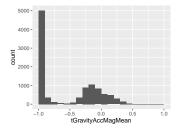
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10294
Median	-0.84
1st and 3rd quartiles	-0.98; -0.24
Min. and max.	-1; 1



### tGravityAccMagMean

Mean of magnitide of time domain measurement of gravity linear acceleration

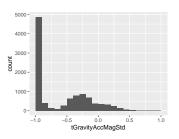
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.87
1st and 3rd quartiles	-0.98; -0.12
Min. and max.	-1; 1



### t Gravity Acc Mag Std

Standard deviation of magnitide of time domain measurement of gravity linear acceleration

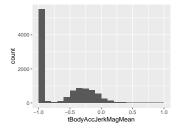
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10294
Median	-0.84
1st and 3rd quartiles	-0.98; -0.24
Min. and max.	-1; 1



### t Body Acc Jerk Mag Mean

Mean of magnitide of time domain measurement of body linear acceleration jerk signals

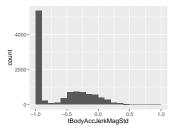
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10292
Median	-0.95
1st and 3rd quartiles	-0.99; -0.3
Min. and max.	-1; 1



## t Body Acc Jerk Mag Std

Standard deviation of magnitide of time domain measurement of body linear acceleration jerk signals

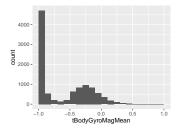
Result
numeric
0 (0 %)
10294
-0.93
-0.99; -0.27
-1; 1



### tBody Gyro Mag Mean

Mean of magnitide of time domain measurement of body angular velocity

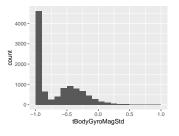
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.82
1st and 3rd quartiles	-0.98; -0.25
Min. and max.	-1; 1



### tBody Gyro Mag Std

Standard deviation of magnitide of time domain measurement of body angular velocity

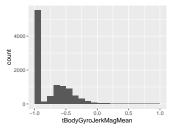
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.83
1st and 3rd quartiles	-0.98; -0.39
Min. and max.	-1; 1



## t Body Gyro Jerk Mag Mean

Mean of magnitide of time domain measurement of body angular velocity jerk signals

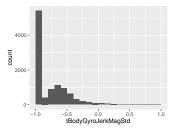
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.96
1st and 3rd quartiles	-0.99; -0.55
Min. and max.	-1; 1



## tBody Gyro Jerk Mag Std

Standard deviation of magnitide of time domain measurement of body angular velocity jerk signals

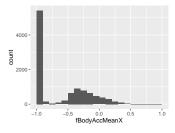
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.94
1st and 3rd quartiles	-0.99; -0.61
Min. and max.	-1; 1



## fBodyAccMeanX

Mean of frequency domain measurement of body linear acceleration in X axis

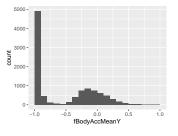
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.95
1st and 3rd quartiles	-0.99; -0.26
Min. and max.	-1; 1



### **fBodyAccMeanY**

Mean of frequency domain measurement of body linear acceleration in Y axis

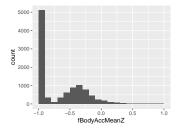
	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10292
Median	-0.86
1st and 3rd quartiles	-0.98; -0.1
Min. and max.	-1; 1



## **fBodyAccMeanZ**

Mean of frequency domain measurement of body linear acceleration in Z axis

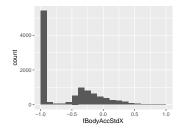
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.9
1st and 3rd quartiles	-0.98; -0.37
Min. and max.	-1; 1



## fBodyAccStdX

Standard deviation of frequency domain measurement of body linear acceleration in X axis

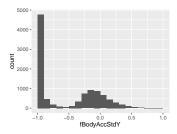
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10294
Median	-0.94
1st and 3rd quartiles	-0.99; -0.25
Min. and max.	-1; 1



## fBodyAccStdY

Standard deviation of frequency domain measurement of body linear acceleration in Y axis

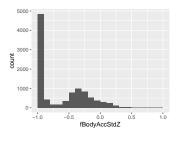
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.83
1st and 3rd quartiles	-0.98; -0.09
Min. and max.	-1; 1



## fBodyAccStdZ

Standard deviation of frequency domain measurement of body linear acceleration in Z axis

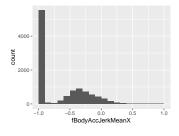
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.84
1st and 3rd quartiles	-0.98; -0.3
Min. and max.	-1; 1



## fBodyAccJerkMeanX

Mean of frequency domain measurement of body linear acceleration jerk signals in X axis

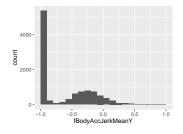
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.95
1st and 3rd quartiles	-0.99; -0.33
Min. and max.	-1; 1



### fBodyAccJerkMeanY

Mean of frequency domain measurement of body linear acceleration jerk signals in Y axis

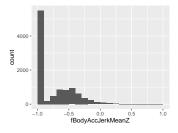
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.93
1st and 3rd quartiles	-0.98; -0.26
Min. and max.	-1; 1



### fBodyAccJerkMeanZ

Mean of frequency domain measurement of body linear acceleration jerk signals in Z axis

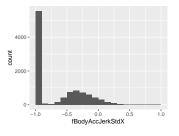
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10294
Median	-0.95
1st and 3rd quartiles	-0.99; -0.51
Min. and max.	-1; 1



#### fBodyAccJerkStdX

Standard deviation of frequency domain measurement of body linear acceleration jerk signals in X axis

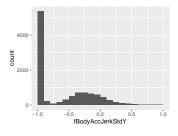
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10291
Median	-0.96
1st and 3rd quartiles	-0.99; -0.32
Min. and max.	-1; 1



## fBodyAccJerkStdY

Standard deviation of frequency domain measurement of body linear acceleration jerk signals in Y axis

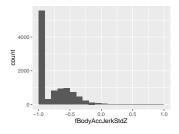
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10294
Median	-0.93
1st and 3rd quartiles	-0.99; -0.24
Min. and max.	-1; 1



## fBodyAccJerkStdZ

Standard deviation of frequency domain measurement of body linear acceleration jerk signals in Z axis

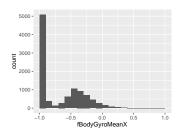
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10290
Median	-0.96
1st and 3rd quartiles	-0.99; -0.59
Min. and max.	-1; 1



## fBody Gyro Mean X

Mean of frequency domain measurement of body angular velocity in X axis

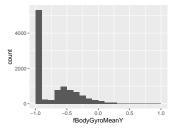
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.89
1st and 3rd quartiles	-0.99; -0.38
Min. and max.	-1; 1



### fBodyGyroMeanY

Mean of frequency domain measurement of body angular velocity in Y axis

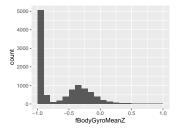
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.92
1st and 3rd quartiles	-0.98; -0.47
Min. and max.	-1; 1



## fBody Gyro Mean Z

Mean of frequency domain measurement of body angular velocity in Z axis

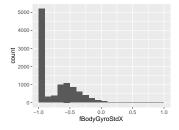
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.89
1st and 3rd quartiles	-0.99; -0.32
Min. and max.	-1; 1



# fBodyGyroStdX

Standard deviation of frequency domain measurement of body angular velocity in X axis

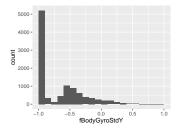
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.91
1st and 3rd quartiles	-0.99; -0.52
Min. and max.	-1; 1



## fBodyGyroStdY

Standard deviation of frequency domain measurement of body angular velocity in Y axis

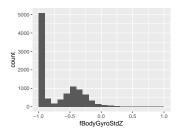
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.91
1st and 3rd quartiles	-0.98; -0.44
Min. and max.	-1; 1



## fBody Gyro StdZ

Standard deviation of frequency domain measurement of body angular velocity in Z axis

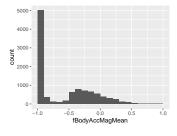
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10295
Median	-0.89
1st and 3rd quartiles	-0.99; -0.42
Min. and max.	-1; 1



### **fBodyAccMagMean**

Mean of magnitide of frequency domain measurement of body linear acceleration

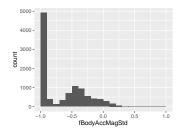
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.88
1st and 3rd quartiles	-0.98; -0.22
Min. and max.	-1; 1



### fBodyAccMagStd

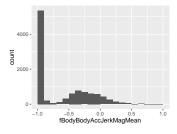
Standard deviation of magnitide of frequency domain measurement of body linear acceleration

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10298
Median	-0.85
1st and 3rd quartiles	-0.98; -0.38
Min. and max.	-1; 1



### fBodyBodyAccJerkMagMean

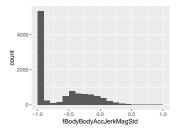
Mean of magnitide of frequency domain measurement of body linear acceleration jerk signals



### fBodyBodyAccJerkMagStd

Standard deviation of magnitide of frequency domain measurement of body linear acceleration jerk signals

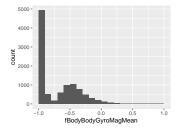
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.93
1st and 3rd quartiles	-0.99; -0.31
Min. and max.	-1; 1



### fBodyBodyGyroMagMean

Mean of magnitide of frequency domain measurement of body angular velocity

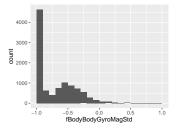
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10297
Median	-0.88
1st and 3rd quartiles	-0.98; -0.45
Min. and max.	-1; 1



### fBodyBodyGyroMagStd

Standard deviation of magnitide of frequency domain measurement of body angular velocity

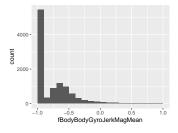
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10296
Median	-0.83
1st and 3rd quartiles	-0.98; -0.47
Min. and max.	-1; 1



### fBodyBodyGyroJerkMagMean

Mean of magnitide of frequency domain measurement of body angular velocity jerk signals

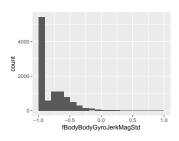
_	
Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10293
Median	-0.95
1st and 3rd quartiles	-0.99; -0.61
Min. and max.	-1; 1



### fBodyBodyGyroJerkMagStd

Standard deviation of magnitide of frequency domain measurement of body angular velocity jerk signals

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	10292
Median	-0.94
1st and 3rd quartiles	-0.99; -0.64
Min. and max.	-1; 1



Codebook generation information:

- Created by: Krishnakanth Allika
- Report creation time: Wed Apr 29 2020 18:07:13
- dataMaid v1.4.0 [Pkg: 2019-12-10 from CRAN (R 3.6.3)]
- R version 3.6.1 (2019-07-05).
- Platform: x86\_64-w64-mingw32/x64 (64-bit)(Windows 10 x64 (build 18363)).

#### License:

Use of this dataset in publications must be acknowledged by referencing the following publication [1]

[1] Davide Anguita, Alessandro Ghio, Luca Oneto, Xavier Parra and Jorge L. Reyes-Ortiz. Human Activity Recognition on Smartphones using a Multiclass Hardware-Friendly Support Vector Machine. International Workshop of Ambient Assisted Living (IWAAL 2012). Vitoria-Gasteiz, Spain. Dec 2012

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Jorge L. Reyes-Ortiz, Alessandro Ghio, Luca Oneto, Davide Anguita. November 2012.