

# Codebook for tidy\_data.txt

Autogenerated data summary from dataMaid

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## Study design

Companies like Fitbit, Nike, and Jawbone Up are racing to develop the most advanced algorithms to attract new users. The data linked to from the course website represent data collected from the accelerometers from the Samsung Galaxy S smartphone. A full description is available at the site where the data was obtained:

<http://archive.ics.uci.edu/ml/datasets/Human+Activity+Recognition+Using+Smartphones>

Here are the data for the project:

<https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip>

## Source

Davide Anguita, Alessandro Ghio, Luca Oneto, Xavier Parra and Jorge L. Reyes-Ortiz. A Public Domain Dataset for Human Activity Recognition Using Smartphones. 21th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, ESANN 2013. Bruges, Belgium 24-26 April 2013.

## Raw data collection and code book

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, we captured 3-axial linear acceleration and 3-axial angular velocity at a constant rate of 50Hz. 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 volunteers was selected for generating the training data and 30% the test data.

The sensor signals (accelerometer and gyroscope) were pre-processed by applying noise filters and then sampled in fixed-width sliding windows of 2.56 sec and 50% overlap (128 readings/window). The sensor acceleration signal, which has gravitational and body motion components, was separated using a Butterworth low-pass filter into body acceleration and gravity. The gravitational force is assumed to have only low frequency components, therefore a filter with 0.3 Hz cutoff frequency was used. From each window, a vector of features was obtained by calculating variables from the time and frequency domain.

## Structure of raw data

The raw data was split into test and train. Test and train data is comprised of 6 .txt files:

- X\_test.txt
- y\_test.txt
- subject\_test.txt
- X\_train.txt
- y\_train.txt

- subject\_train.txt

Alongside the test and train data two additional files were provided that provided labels for the features and activities:

- features\_info.txt
- activity\_labels.txt

## Processing applied to raw data

The processing of the raw data is done by the run\_analysis.R script. The overview of the actions performed by the function are:

1. Merges the training and the test sets to create one data set.
2. Appropriately labels the data set with descriptive variable names.
3. Uses descriptive activity names to name the activities in the data set
4. Extracts only the measurements on the mean and standard deviation for each measurement.
5. From the data set in step 4, creates a second, independent tidy data set with the average of each variable for each activity and each subject.

The output from the script is saved in a file called tidy\_data.txt

## tidy\_data.txt overview

The dataset examined has the following dimensions:

Feature	Result
Number of observations	180
Number of variables	81

## Codebook summary table

Label	Variable	Class	# unique values	Missing	Description
	<b>subjectId</b>	integer	30	0.00 %	
	<b>activity</b>	factor	6	0.00 %	
	<b>tBodyAcc-mean()-X</b>	numeric	180	0.00 %	
	<b>tBodyAcc-mean()-Y</b>	numeric	180	0.00 %	
	<b>tBodyAcc-mean()-Z</b>	numeric	180	0.00 %	
	<b>tBodyAcc-std()-X</b>	numeric	180	0.00 %	
	<b>tBodyAcc-std()-Y</b>	numeric	180	0.00 %	
	<b>tBodyAcc-std()-Z</b>	numeric	180	0.00 %	
	<b>tGravityAcc-mean()-X</b>	numeric	180	0.00 %	
	<b>tGravityAcc-mean()-Y</b>	numeric	180	0.00 %	
	<b>tGravityAcc-mean()-Z</b>	numeric	180	0.00 %	
	<b>tGravityAcc-std()-X</b>	numeric	180	0.00 %	
	<b>tGravityAcc-std()-Y</b>	numeric	180	0.00 %	

Label	Variable	Class	# unique values	Missing	Description
	tGravityAcc-std()-Z	numeric	180	0.00 %	
	tBodyAccJerk-mean()-X	numeric	180	0.00 %	
	tBodyAccJerk-mean()-Y	numeric	180	0.00 %	
	tBodyAccJerk-mean()-Z	numeric	180	0.00 %	
	tBodyAccJerk-std()-X	numeric	180	0.00 %	
	tBodyAccJerk-std()-Y	numeric	180	0.00 %	
	tBodyAccJerk-std()-Z	numeric	180	0.00 %	
	tBodyGyro-mean()-X	numeric	180	0.00 %	
	tBodyGyro-mean()-Y	numeric	180	0.00 %	
	tBodyGyro-mean()-Z	numeric	180	0.00 %	
	tBodyGyro-std()-X	numeric	180	0.00 %	
	tBodyGyro-std()-Y	numeric	180	0.00 %	
	tBodyGyro-std()-Z	numeric	180	0.00 %	
	tBodyGyroJerk-mean()-X	numeric	180	0.00 %	
	tBodyGyroJerk-mean()-Y	numeric	180	0.00 %	
	tBodyGyroJerk-mean()-Z	numeric	180	0.00 %	
	tBodyGyroJerk-std()-X	numeric	180	0.00 %	
	tBodyGyroJerk-std()-Y	numeric	180	0.00 %	
	tBodyGyroJerk-std()-Z	numeric	180	0.00 %	
	tBodyAccMag-mean()	numeric	180	0.00 %	
	tBodyAccMag-std()	numeric	180	0.00 %	
	tGravityAccMag-mean()	numeric	180	0.00 %	
	tGravityAccMag-std()	numeric	180	0.00 %	
	tBodyAccJerkMag-mean()	numeric	180	0.00 %	
	tBodyAccJerkMag-std()	numeric	180	0.00 %	
	tBodyGyroMag-mean()	numeric	180	0.00 %	
	tBodyGyroMag-std()	numeric	180	0.00 %	
	tBodyGyroJerkMag-mean()	numeric	180	0.00 %	
	tBodyGyroJerkMag-std()	numeric	180	0.00 %	
	fBodyAcc-mean()-X	numeric	180	0.00 %	
	fBodyAcc-mean()-Y	numeric	180	0.00 %	
	fBodyAcc-mean()-Z	numeric	180	0.00 %	
	fBodyAcc-std()-X	numeric	180	0.00 %	
	fBodyAcc-std()-Y	numeric	180	0.00 %	
	fBodyAcc-std()-Z	numeric	180	0.00 %	
	fBodyAcc-meanFreq()-X	numeric	180	0.00 %	
	fBodyAcc-meanFreq()-Y	numeric	180	0.00 %	
	fBodyAcc-meanFreq()-Z	numeric	180	0.00 %	
	fBodyAccJerk-mean()-X	numeric	180	0.00 %	
	fBodyAccJerk-mean()-Y	numeric	180	0.00 %	
	fBodyAccJerk-mean()-Z	numeric	180	0.00 %	
	fBodyAccJerk-std()-X	numeric	180	0.00 %	
	fBodyAccJerk-std()-Y	numeric	180	0.00 %	
	fBodyAccJerk-std()-Z	numeric	180	0.00 %	
	fBodyAccJerk-meanFreq()-X	numeric	180	0.00 %	
	fBodyAccJerk-meanFreq()-Y	numeric	180	0.00 %	
	fBodyAccJerk-meanFreq()-Z	numeric	180	0.00 %	
	fBodyGyro-mean()-X	numeric	180	0.00 %	
	fBodyGyro-mean()-Y	numeric	180	0.00 %	
	fBodyGyro-mean()-Z	numeric	180	0.00 %	
	fBodyGyro-std()-X	numeric	180	0.00 %	

Label	Variable	Class	# unique values	Missing	Description
	fBodyGyro-std()-Y	numeric	180	0.00 %	
	fBodyGyro-std()-Z	numeric	180	0.00 %	
	fBodyGyro-meanFreq()-X	numeric	180	0.00 %	
	fBodyGyro-meanFreq()-Y	numeric	180	0.00 %	
	fBodyGyro-meanFreq()-Z	numeric	180	0.00 %	
	fBodyAccMag-mean()	numeric	180	0.00 %	
	fBodyAccMag-std()	numeric	180	0.00 %	
	fBodyAccMag-meanFreq()	numeric	180	0.00 %	
	fBodyBodyAccJerkMag-mean()	numeric	180	0.00 %	
	fBodyBodyAccJerkMag-std()	numeric	180	0.00 %	
	fBodyBodyAccJerkMag-meanFreq()	numeric	180	0.00 %	
	fBodyBodyGyroMag-mean()	numeric	180	0.00 %	
	fBodyBodyGyroMag-std()	numeric	180	0.00 %	
	fBodyBodyGyroMag-meanFreq()	numeric	180	0.00 %	
	fBodyBodyGyroJerkMag-mean()	numeric	180	0.00 %	
	fBodyBodyGyroJerkMag-std()	numeric	180	0.00 %	
	fBodyBodyGyroJerkMag-meanFreq()	numeric	180	0.00 %	

## Variable list

### subjectId

Feature	Result
Variable type	integer
Number of missing obs.	0 (0 %)
Number of unique values	30
Median	15.5
1st and 3rd quartiles	8; 23
Min. and max.	1; 30

### activity

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

### tBodyAcc-mean()-X

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.28
1st and 3rd quartiles	0.27; 0.28
Min. and max.	0.22; 0.3

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### tBodyAcc-mean()-Y

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.02
1st and 3rd quartiles	-0.02; -0.01
Min. and max.	-0.04; 0

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### tBodyAcc-mean()-Z

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.11
1st and 3rd quartiles	-0.11; -0.1
Min. and max.	-0.15; -0.08

---

### tBodyAcc-std()-X

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.75
1st and 3rd quartiles	-0.98; -0.2

Feature	Result
Min. and max.	-1; 0.63

---

### **tBodyAcc-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.51
1st and 3rd quartiles	-0.94; -0.03
Min. and max.	-0.99; 0.62

---

### **tBodyAcc-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.65
1st and 3rd quartiles	-0.95; -0.23
Min. and max.	-0.99; 0.61

---

### **tGravityAcc-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.92
1st and 3rd quartiles	0.84; 0.94
Min. and max.	-0.68; 0.97

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### **tGravityAcc-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.13
1st and 3rd quartiles	-0.23; 0.09
Min. and max.	-0.48; 0.96

---

### **tGravityAcc-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.02
1st and 3rd quartiles	-0.12; 0.15
Min. and max.	-0.5; 0.96

---

### **tGravityAcc-std()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.97
1st and 3rd quartiles	-0.98; -0.95
Min. and max.	-1; -0.83

---

### **tGravityAcc-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.96
1st and 3rd quartiles	-0.97; -0.94
Min. and max.	-0.99; -0.64

---

### **tGravityAcc-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.95
1st and 3rd quartiles	-0.96; -0.92
Min. and max.	-0.99; -0.61

---

### **tBodyAccJerk-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.08
1st and 3rd quartiles	0.07; 0.08
Min. and max.	0.04; 0.13

---

### **tBodyAccJerk-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.01
1st and 3rd quartiles	0; 0.01
Min. and max.	-0.04; 0.06

---

### **tBodyAccJerk-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)



Feature	Result
Number of unique values	180
Median	0
1st and 3rd quartiles	-0.01; 0
Min. and max.	-0.07; 0.04

---

### **tBodyAccJerk-std()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.81
1st and 3rd quartiles	-0.98; -0.22
Min. and max.	-0.99; 0.54

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### **tBodyAccJerk-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.78
1st and 3rd quartiles	-0.97; -0.15
Min. and max.	-0.99; 0.36

---

### **tBodyAccJerk-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.88
1st and 3rd quartiles	-0.98; -0.51
Min. and max.	-0.99; 0.03

---

### tBodyGyro-mean()-X

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.03
1st and 3rd quartiles	-0.05; -0.02
Min. and max.	-0.21; 0.19

---

### tBodyGyro-mean()-Y

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.07
1st and 3rd quartiles	-0.09; -0.06
Min. and max.	-0.2; 0.03

---

### tBodyGyro-mean()-Z

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.09
1st and 3rd quartiles	0.07; 0.1
Min. and max.	-0.07; 0.18

---

### tBodyGyro-std()-X

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.79
1st and 3rd quartiles	-0.97; -0.44

Feature	Result
Min. and max.	-0.99; 0.27

---

### **tBodyGyro-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.8
1st and 3rd quartiles	-0.96; -0.42
Min. and max.	-0.99; 0.48

---

### **tBodyGyro-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.8
1st and 3rd quartiles	-0.96; -0.31
Min. and max.	-0.99; 0.56

---

### **tBodyGyroJerk-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.1
1st and 3rd quartiles	-0.1; -0.09
Min. and max.	-0.16; -0.02

---

### **tBodyGyroJerk-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.04
1st and 3rd quartiles	-0.05; -0.04
Min. and max.	-0.08; -0.01

---

### **tBodyGyroJerk-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.05
1st and 3rd quartiles	-0.06; -0.05
Min. and max.	-0.09; -0.01

---

### **tBodyGyroJerk-std()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.84
1st and 3rd quartiles	-0.98; -0.46
Min. and max.	-1; 0.18

---

### **tBodyGyroJerk-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.89
1st and 3rd quartiles	-0.98; -0.59
Min. and max.	-1; 0.3

---

### **tBodyGyroJerk-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.86
1st and 3rd quartiles	-0.98; -0.47
Min. and max.	-1; 0.19

---

### **tBodyAccMag-mean()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.48
1st and 3rd quartiles	-0.96; -0.09
Min. and max.	-0.99; 0.64

---

### **tBodyAccMag-std()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.61
1st and 3rd quartiles	-0.94; -0.21
Min. and max.	-0.99; 0.43

---

### **tGravityAccMag-mean()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)

Feature	Result
Number of unique values	180
Median	-0.48
1st and 3rd quartiles	-0.96; -0.09
Min. and max.	-0.99; 0.64

---

### **tGravityAccMag-std()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.61
1st and 3rd quartiles	-0.94; -0.21
Min. and max.	-0.99; 0.43

---

### **tBodyAccJerkMag-mean()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.82
1st and 3rd quartiles	-0.98; -0.25
Min. and max.	-0.99; 0.43

---

### **tBodyAccJerkMag-std()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.8
1st and 3rd quartiles	-0.98; -0.22
Min. and max.	-0.99; 0.45

---

### tBodyGyroMag-mean()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.66
1st and 3rd quartiles	-0.95; -0.22
Min. and max.	-0.98; 0.42

---

### tBodyGyroMag-std()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.74
1st and 3rd quartiles	-0.95; -0.36
Min. and max.	-0.98; 0.3

---

### tBodyGyroJerkMag-mean()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.86
1st and 3rd quartiles	-0.99; -0.51
Min. and max.	-1; 0.09

---

### tBodyGyroJerkMag-std()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.88
1st and 3rd quartiles	-0.98; -0.58

Feature	Result
Min. and max.	-1; 0.25

---

### **fBodyAcc-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.77
1st and 3rd quartiles	-0.98; -0.22
Min. and max.	-1; 0.54

---

### **fBodyAcc-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.59
1st and 3rd quartiles	-0.95; -0.06
Min. and max.	-0.99; 0.52

---

### **fBodyAcc-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.72
1st and 3rd quartiles	-0.96; -0.32
Min. and max.	-0.99; 0.28

---

### **fBodyAcc-std()-X**



Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.75
1st and 3rd quartiles	-0.98; -0.2
Min. and max.	-1; 0.66

---

### **fBodyAcc-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.51
1st and 3rd quartiles	-0.94; -0.08
Min. and max.	-0.99; 0.56

---

### **fBodyAcc-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.64
1st and 3rd quartiles	-0.95; -0.27
Min. and max.	-0.99; 0.69

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### **fBodyAcc-meanFreq()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.26
1st and 3rd quartiles	-0.39; -0.06
Min. and max.	-0.64; 0.16

---

### **fBodyAcc-meanFreq()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.01
1st and 3rd quartiles	-0.08; 0.09
Min. and max.	-0.38; 0.47

---

### **fBodyAcc-meanFreq()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.07
1st and 3rd quartiles	-0.04; 0.18
Min. and max.	-0.52; 0.4

---

### **fBodyAccJerk-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.81
1st and 3rd quartiles	-0.98; -0.28
Min. and max.	-0.99; 0.47

---

### **fBodyAccJerk-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)

Feature	Result
Number of unique values	180
Median	-0.78
1st and 3rd quartiles	-0.97; -0.2
Min. and max.	-0.99; 0.28

---

### **fBodyAccJerk-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.87
1st and 3rd quartiles	-0.98; -0.47
Min. and max.	-0.99; 0.16

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### **fBodyAccJerk-std()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.83
1st and 3rd quartiles	-0.98; -0.25
Min. and max.	-1; 0.48

---

### **fBodyAccJerk-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.79
1st and 3rd quartiles	-0.97; -0.17
Min. and max.	-0.99; 0.35

---

### fBodyAccJerk-std()-Z

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.9
1st and 3rd quartiles	-0.98; -0.54
Min. and max.	-0.99; -0.01

---

### fBodyAccJerk-meanFreq()-X

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.06
1st and 3rd quartiles	-0.29; 0.18
Min. and max.	-0.58; 0.33

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### fBodyAccJerk-meanFreq()-Y

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.23
1st and 3rd quartiles	-0.4; -0.05
Min. and max.	-0.6; 0.2

---

### fBodyAccJerk-meanFreq()-Z

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.09
1st and 3rd quartiles	-0.31; 0.04

Feature	Result
Min. and max.	-0.63; 0.23

---

### **fBodyGyro-mean()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.73
1st and 3rd quartiles	-0.97; -0.34
Min. and max.	-0.99; 0.47

---

### **fBodyGyro-mean()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.81
1st and 3rd quartiles	-0.97; -0.45
Min. and max.	-0.99; 0.33

---

### **fBodyGyro-mean()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.79
1st and 3rd quartiles	-0.96; -0.26
Min. and max.	-0.99; 0.49

---

### **fBodyGyro-std()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.81
1st and 3rd quartiles	-0.98; -0.48
Min. and max.	-0.99; 0.2

---

### **fBodyGyro-std()-Y**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.8
1st and 3rd quartiles	-0.96; -0.42
Min. and max.	-0.99; 0.65

---

### **fBodyGyro-std()-Z**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.82
1st and 3rd quartiles	-0.96; -0.39
Min. and max.	-0.99; 0.52

---

### **fBodyGyro-meanFreq()-X**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.12
1st and 3rd quartiles	-0.21; 0
Min. and max.	-0.4; 0.25

---

### fBodyGyro-meanFreq()-Y

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.16
1st and 3rd quartiles	-0.29; -0.04
Min. and max.	-0.67; 0.27

---

### fBodyGyro-meanFreq()-Z

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.05
1st and 3rd quartiles	-0.15; 0.04
Min. and max.	-0.51; 0.38

---

### fBodyAccMag-mean()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.67
1st and 3rd quartiles	-0.96; -0.16
Min. and max.	-0.99; 0.59

---

### fBodyAccMag-std()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)

Feature	Result
Number of unique values	180
Median	-0.65
1st and 3rd quartiles	-0.95; -0.37
Min. and max.	-0.99; 0.18

---

### **fBodyAccMag-meanFreq()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.08
1st and 3rd quartiles	-0.01; 0.17
Min. and max.	-0.31; 0.44

---

### **fBodyBodyAccJerkMag-mean()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.79
1st and 3rd quartiles	-0.98; -0.19
Min. and max.	-0.99; 0.54

---

### **fBodyBodyAccJerkMag-std()**

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.81
1st and 3rd quartiles	-0.98; -0.27
Min. and max.	-0.99; 0.32

---



### fBodyBodyAccJerkMag-meanFreq()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.17
1st and 3rd quartiles	0.05; 0.28
Min. and max.	-0.13; 0.49

---

### fBodyBodyGyroMag-mean()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.77
1st and 3rd quartiles	-0.96; -0.41
Min. and max.	-0.99; 0.2

---

### fBodyBodyGyroMag-std()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.77
1st and 3rd quartiles	-0.95; -0.43
Min. and max.	-0.98; 0.24

---

### fBodyBodyGyroMag-meanFreq()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.05
1st and 3rd quartiles	-0.17; 0.08

Feature	Result
Min. and max.	-0.46; 0.41

---

### fBodyBodyGyroJerkMag-mean()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.88
1st and 3rd quartiles	-0.98; -0.58
Min. and max.	-1; 0.15

---

### fBodyBodyGyroJerkMag-std()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	-0.89
1st and 3rd quartiles	-0.98; -0.61
Min. and max.	-1; 0.29

---

### fBodyBodyGyroJerkMag-meanFreq()

Feature	Result
Variable type	numeric
Number of missing obs.	0 (0 %)
Number of unique values	180
Median	0.11
1st and 3rd quartiles	0.05; 0.21
Min. and max.	-0.18; 0.43

---

Report generation information:

- Created by Scott Robertson (username: scottrobertson).

- Report creation time: Tue Sep 04 2018 09:20:02
- Report Was run from directory: /Users/scottrobertson/R Programming/Coursera
- dataMaid v1.1.2 [Pkg: 2018-05-03 from CRAN (R 3.5.1)]
- R version 3.5.1 (2018-07-02).
- Platform: x86\_64-apple-darwin17.7.0 (64-bit)(macOS High Sierra 10.13.6).
- Function call: `makeDataReport(data = tidy_data, mode = "summarize", file = "codebook", checks = list(list("showAllFactorLevels")), listChecks = FALSE, maxProbVals = FALSE, codebook = TRUE, reportTitle = "Codebook for tidy_data")`