# Codebook

This document describe the variables produced by the run\_analysis.R

## Source Data

The information about how the experiment conducted and how the original data collected can be found in the zip file [here](https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip).

## Activity

Activity type

1. WALKING
2. WALKING\_UPSTAIRS
3. WALKING\_DOWNSTAIRS
4. SITTING
5. STANDING
6. LAYING

## Subject

ID of subject who carried out the experiment

## Variables

|  |  |
| --- | --- |
| **Variable name** | **Description** |
| Time\_BodyAcc\_Mean\_X | Mean value of X coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_BodyAcc\_Mean\_Y | Mean value of Y coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_BodyAcc\_Mean\_Z | Mean value of Z coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_BodyAcc\_Std\_X | Standard deviation of X coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_BodyAcc\_Std\_Y | Standard deviation of Y coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_BodyAcc\_Std\_Z | Standard deviation of Z coordinate of body acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Mean\_X | Mean value of X coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Mean\_Y | Mean value of Y coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Mean\_Z | Mean value of Z coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Std\_X | Standard deviation of X coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Std\_Y | Standard deviation of Y coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_GravityAcc\_Std\_Z | Standard deviation of Z coordinate of gravity acceleration captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Mean\_X | Mean value of X coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Mean\_Y | Mean value of Y coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Mean\_Z | Mean value of Z coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Std\_X | Standard deviation of X coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Std\_Y | Standard deviation ofYX coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerk\_Std\_Z | Standard deviation of Z coordinate of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyGyro\_Mean\_X | Mean value of X coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyro\_Mean\_Y | Mean value of Y coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyro\_Mean\_Z | Mean value of Z coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyro\_Std\_X | Standard deviation of X coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyro\_Std\_Y | Standard deviation of Y coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyro\_Std\_Z | Standard deviation of Z coordinate of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Mean\_X | Mean value of X coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Mean\_Y | Mean value of Y coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Mean\_Z | Mean value of Z coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Std\_X | Standard deviation of X coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Std\_Y | Standard deviation of Y coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerk\_Std\_Z | Standard deviation of Z coordinate of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyAccMag\_Mean | Mean value of magnitude of body acceleration captured by accelerator in the time domain |
| Time\_BodyAccMag\_Std | Standard deviation of magnitude of body acceleration captured by accelerator in the time domain |
| Time\_GravityAccMag\_Mean | Mean value of magnitude of gravity acceleration captured by accelerator in the time domain |
| Time\_GravityAccMag\_Std | Standard deviation of magnitude of gravity acceleration captured by accelerator in the time domain |
| Time\_BodyAccJerkMag\_Mean | Mean value of magnitude of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyAccJerkMag\_Std | Standard deviation of magnitude of body acceleration jerk captured by accelerometer in the time domain |
| Time\_BodyGyroMag\_Mean | Mean value of magnitude of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyroMag\_Std | Standard deviation of magnitude of body acceleration captured by gyroscope in the time domain |
| Time\_BodyGyroJerkMag\_Mean | Mean value of magnitude of body acceleration jerk captured by gyroscope in the time domain |
| Time\_BodyGyroJerkMag\_Std | Standard deviation of magnitude of body acceleration jerk captured by gyroscope in the time domain |
| Frequency\_BodyAcc\_Mean\_X | Mean value of X coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAcc\_Mean\_Y | Mean value of Y coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAcc\_Mean\_Z | Mean value of Z coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAcc\_Std\_X | Standard deviation value of X coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAcc\_Std\_Y | Standard deviation value of Y coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAcc\_Std\_Z | Standard deviation value of Z coordinate of body acceleration captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Mean\_X | Mean value of X coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Mean\_Y | Mean value of Y coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Mean\_Z | Mean value of Z coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Std\_X | Standard deviation of X coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Std\_Y | Standard deviation of Y coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyAccJerk\_Std\_Z | Standard deviation of Z coordinate of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyGyro\_Mean\_X | Mean value of X coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyGyro\_Mean\_Y | Mean value of Y coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyGyro\_Mean\_Z | Mean value of Z coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyGyro\_Std\_X | Standard deviation of X coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyGyro\_Std\_Y | Standard deviation of Y coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyGyro\_Std\_Z | Standard deviation of Z coordinate of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyAccMag\_Mean | Mean value of magnitude of body acceleration captured by accelerator in the frequency domain |
| Frequency\_BodyAccMag\_Std | Standard deviation of magnitude of body acceleration captured by accelerator in the frequency domain |
| Frequency\_BodyBodyAccJerkMag\_Mean | Mean value of magnitude of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyBodyAccJerkMag\_Std | Standard deviation of magnitude of body acceleration jerk captured by accelerometer in the frequency domain |
| Frequency\_BodyBodyGyroMag\_Mean | Mean value of magnitude of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyBodyGyroMag\_Std | Standard deviation of magnitude of body acceleration captured by gyroscope in the frequency domain |
| Frequency\_BodyBodyGyroJerkMag\_Mean | Mean value of magnitude of body acceleration jerk captured by gyroscope in the frequency domain |
| Frequency\_BodyBodyGyroJerkMag\_Std | Standard deviation of magnitude of body acceleration jerk captured by gyroscope in the frequency domain |