# Codebook for the Tidy Data Set (tidydata)

## Source:

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## Overview: Represents arithmetic means of original multiple observations of 30 subjects doing 6 different activities. There were originally a 561 -feature vector with time and frequency domain variables. This dataset represents the aggregate means for those measurements for the unique combination of subject and activity. See the README.MD file for a step by step description of how the results were obtained from the raw data. Note that the original data have been normalized and bounded within [-1, 1].

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| --- | --- | --- | --- |
| No. | Column Name | R Data Type | Description |
| 1 | Group.1 | Integer | Unique identifier of subject. Values 1 through 30 |
| 2 | Group.2 | Factor | Identifies the type of activities performed by the subject. Values are WALKING, WALKING\_UPSTAIRS, WALKING\_DOWNSTAIRS, SITTING, STANDING, LAYING |
| 3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  60  61  62  63  64  65  66  67  68 | tBodyAcc\_mean\_X tBodyAcc\_mean\_Y tBodyAcc\_mean\_Z  tBodyAcc\_std\_X tBodyAcc\_std\_Y tBodyAcc\_std\_Z tGravityAcc\_mean\_X tGravityAcc\_mean\_Y  tGravityAcc\_mean\_Z tGravityAcc\_std\_X tGravityAcc\_std\_Y tGravityAcc\_std\_Z tBodyAccJerk\_mean\_X  tBodyAccJerk\_mean\_Y tBodyAccJerk\_mean\_Z tBodyAccJerk\_std\_X tBodyAccJerk\_std\_Y tBodyAccJerk\_std\_Z  tBodyGyro\_mean\_X tBodyGyro\_mean\_Y tBodyGyro\_mean\_Z tBodyGyro\_std\_X tBodyGyro\_std\_Y  tBodyGyro\_std\_Z tBodyGyroJerk\_mean\_X tBodyGyroJerk\_mean\_Y tBodyGyroJerk\_mean\_Z tBodyGyroJerk\_std\_X  tBodyGyroJerk\_std\_Y tBodyGyroJerk\_std\_Z tBodyAccMag\_mean tBodyAccMag\_std tGravityAccMag\_mean  tGravityAccMag\_std tBodyAccJerkMag\_mean tBodyAccJerkMag\_std tBodyGyroMag\_mean tBodyGyroMag\_std  tBodyGyroJerkMag\_mean tBodyGyroJerkMag\_std fBodyAcc\_mean\_X fBodyAcc\_mean\_Y fBodyAcc\_mean\_Z  fBodyAcc\_std\_X fBodyAcc\_std\_Y fBodyAcc\_std\_Z fBodyAccJerk\_mean\_X fBodyAccJerk\_mean\_Y  fBodyAccJerk\_mean\_Z fBodyAccJerk\_std\_X fBodyAccJerk\_std\_Y fBodyAccJerk\_std\_Z fBodyGyro\_mean\_X  fBodyGyro\_mean\_Y fBodyGyro\_mean\_Z fBodyGyro\_std\_X fBodyGyro\_std\_Y fBodyGyro\_std\_Z  fBodyAccMag\_mean fBodyAccMag\_std fBodyBodyAccJerkMag\_mean fBodyBodyAccJerkMag\_std  fBodyBodyGyroMag\_mean fBodyBodyGyroMag\_std fBodyBodyGyroJerkMag\_mean fBodyBodyGyroJerkMag\_std | Numeric | Note: first letter **t** identifies a time variable and **f** a frequency one (a Fast Fourier Transform (FFT) was applied to the frequencies).  Body or Gravity - The sensor acceleration signal has both body and gravity components.  Acc = Accelerator, Gyro = Gyroscope – measurement device used  Type of initial summary calculation is either a mean or a standard deviation (std).  A Last letter of X, Y or Z identifies the movement dimension.  Jerk denotes jerk signals derived from the body linear acceleration and angular velocity measurements.  Mag denotes the magnitude of the three-dimensional signals using the Euclidean norm. |