DATA DICTIONARY – RUN ANALYSIS

1. Activityname 6

Activity identifier, string with 6 possible values:

* + WALKING: subject was walking
  + WALKING\_UPSTAIRS: subject was walking upstairs
  + WALKING\_DOWNSTAIRS: subject was walking downstairs
  + SITTING: subject was sitting
  + STANDING: subject was standing
  + LAYING: subject was laying

1. Subject 30

Subject identifier, integer, and ranges from 1 to 30.

All measurements below are floating-point values, normalised and bounded within [-1,1]

Average time\_domain body acceleration in the X, Y and Z directions:

1. time\_BodyAcc\_mean\_X
2. time\_BodyAcc\_mean\_Y
3. time\_BodyAcc\_mean\_Z

Standard deviation of the time\_domain body acceleration in the X, Y and Z directions:

1. time\_BodyAcc\_std\_X
2. time\_BodyAcc\_std\_Y
3. time\_BodyAcc\_std\_Z

Average time-domain gravity acceleration in the X, Y and Z directions:

1. time\_GravityAcc\_mean\_X
2. time\_GravityAcc\_mean\_Y
3. time\_GravityAcc\_mean\_Z

Standard deviation of the time-domain gravity acceleration in the X, Y and Z directions:

1. time\_GravityAcc\_std\_X
2. time\_GravityAcc\_std\_Y
3. time\_GravityAcc\_std\_Z

Average time-domain body acceleration jerk (derivation of the acceleration in time) in the X, Y and Z directions:

1. time\_BodyAccJerk\_mean\_X
2. time\_BodyAccJerk\_mean\_Y
3. time\_BodyAccJerk\_mean\_Z

Standard deviation of the time-domain body acceleration jerk (derivation of the acceleration in time) in the X, Y and Z directions:

1. time\_BodyAccJerk\_std\_X
2. time\_BodyAccJerk\_std\_Y
3. time\_BodyAccJerk\_std\_Z

Average time-domain body angular velocity in the X, Y and Z directions:

1. time\_BodyGyro\_mean\_X
2. time\_BodyGyro\_mean\_Y
3. time\_BodyGyro\_mean\_Z

Standard deviation of the time-domain body angular velocity in the X, Y and Z directions:

1. time\_BodyGyro\_std\_X
2. time\_BodyGyro\_std\_Y
3. time\_BodyGyro\_std\_Z

Average time\_domain body angular velocity jerk (derivation of the angular velocity in time\_) in the X, Y and Z directions:

1. time\_BodyGyroJerk\_mean\_X
2. time\_BodyGyroJerk\_mean\_Y
3. time\_BodyGyroJerk\_mean\_Z

Standard deviation of the time\_domain body angular velocity jerk (derivation of the angular velocity in time\_) in the X, Y and Z directions:

1. time\_BodyGyroJerk\_std\_X
2. time\_BodyGyroJerk\_std\_Y
3. time\_BodyGyroJerk\_std\_Z

Average and standard deviation of the time\_domain magnitude of body acceleration:

1. time\_BodyAccMag\_mean
2. time\_BodyAccMag\_std

Average and standard deviation of the time\_domain magnitude of gravity acceleration:

1. time\_GravityAccMag\_mean
2. time\_GravityAccMag\_std

Average and standard deviation of the time\_domain magnitude of body acceleration jerk (derivation of the acceleration in time):

1. time\_BodyAccJerkMag\_mean
2. time\_BodyAccJerkMag\_std

Average and standard deviation of the time\_domain magnitude of body angular velocity:

1. time\_BodyGyroMag\_mean
2. time\_BodyGyroMag\_std

Average and standard deviation of the time\_domain magnitude of body angular velocity jerk (derivation of the angular velocity in time):

1. time\_BodyGyroJerkMag\_mean
2. time\_BodyGyroJerkMag\_std

Average frequency-domain body acceleration in the X, Y and Z directions:

1. freq\_BodyAcc\_mean\_X
2. freq\_BodyAcc\_mean\_Y
3. freq\_BodyAcc\_mean\_Z

Standard deviation of the frequency-domain body acceleration in the X, Y and Z directions:

1. freq\_BodyAcc\_std\_X
2. freq\_BodyAcc\_std\_Y
3. freq\_BodyAcc\_std\_Z

Weighted average of the frequency components of the frequency-domain body acceleration in the X, Y and Z directions:

1. freq\_BodyAcc\_meanFreq\_X
2. freq\_BodyAcc\_meanFreq\_Y
3. freq\_BodyAcc\_meanFreq\_Z

Average frequency-domain body acceleration jerk (derivation of the acceleration in time) in the X, Y and Z directions:

1. freq\_BodyAccJerk\_mean\_X
2. freq\_BodyAccJerk\_mean\_Y
3. freq\_BodyAccJerk\_mean\_Z

Standard deviation of the frequency-domain body acceleration jerk (derivation of the acceleration in time) in the X, Y and Z directions:

1. freq\_BodyAccJerk\_std\_X
2. freq\_BodyAccJerk\_std\_Y
3. freq\_BodyAccJerk\_std\_Z

Weighted average of the frequency components of the frequency-domain body acceleration jerk (derivation of the acceleration in time) in the X, Y and Z directions:

1. freq\_BodyAccJerk\_meanFreq\_X
2. freq\_BodyAccJerk\_meanFreq\_Y
3. freq\_BodyAccJerk\_meanFreq\_Z

Average frequency-domain body angular velocity in the X, Y and Z directions:

1. freq\_BodyGyro\_mean\_X
2. freq\_BodyGyro\_mean\_Y
3. freq\_BodyGyro\_mean\_XZ

Standard deviation of the frequency-domain body angular velocity in the X, Y and Z directions:

1. freq\_BodyGyro\_std\_X
2. freq\_BodyGyro\_std\_Y
3. freq\_BodyGyro\_std\_X

Weighted average of the frequency components of the frequency-domain body angular velocity in the X, Y and Z directions:

1. freq\_BodyGyro\_meanFreq\_X
2. freq\_BodyGyro\_meanFreq\_Y
3. freq\_BodyGyro\_meanFreq\_Z

Average, standard deviation, and weighted average of the frequency components of the frequency-domain magnitude of body acceleration:

1. freq\_BodyAccMag\_mean
2. freq\_BodyAccMag\_std
3. freq\_BodyAccMag\_meanFreq

Average, standard deviation, and weighted average of the frequency components of the frequency-domain magnitude of body acceleration jerk (derivation of the acceleration in time):

1. freq\_BodyAccJerkMag\_mean
2. freq\_BodyAccJerkMag\_std
3. freq\_BodyAccJerkMag\_meanFreq

Average, standard deviation, and weighted average of the frequency components of the frequency-domain magnitude of body angular velocity:

1. freq\_BodyGyroMag\_mean
2. freq\_BodyGyroMag\_std
3. freq\_BodyGyroMag\_meanFreq

Average, standard deviation, and weighted average of the frequency components of the frequency-domain magnitude of body angular velocity jerk (derivation of the angular velocity in time):

1. freq\_BodyGyroJerkMag\_mean
2. freq\_BodyGyroJerkMag\_std
3. freq\_BodyGyroJerkMag\_meanFreq