Codebook: This documents contains Field Names and Variable information.

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The features selected for this dataset come from the accelerometer and gyroscope 3-axial raw signals tAcc-XYZ and tGyro-XYZ. The acceleration signal is divided into body and gravity acceleration signals (tBodyAcc-XYZ and tGravityAcc-XYZ.

Subsequently, the body linear acceleration and angular velocity were derived in time to obtain Jerk signals (tBodyAccJerk-XYZ and tBodyGyroJerk-XYZ). Also the magnitude of these three-dimensional signals were calculated using the Euclidean norm (tBodyAccMag, tGravityAccMag, tBodyAccJerkMag, tBodyGyroMag, tBodyGyroJerkMag).

These signals were used to estimate variables of the feature vector for each pattern:

'-XYZ' is used to denote 3-axial signals in the X, Y and Z directions.

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| --- | --- |
| Field Label | subjects |
| Variable | People who participated in the study |
| Variable Type | Factor |
| Allowable Values | 1 to 30 |
|  |  |
| Field Label | activity |
| Variable | Activity performed |
| Variable Type | Factor |
| Allowable Values | 6, walk, walk-up, walk-down, sit, stand, lay |
|  |  |
| Field Label | AvgBodyAccelerationXaxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
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| Field Label | AvgBodyAccelerationYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values | Mean value of body acceleration along Y axis |
|  |  |
| Field Label | AvgBodyAccelerationZaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationYaxis |
| Variable | Mean value of std deviation body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAccelerationYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationZaxis |
| Variable | Mean value std deviation of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgGravityAccelerationXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgGravityAccelerationYaxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgGravityAccelerationZaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevGravityAccelerationXaxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevGravityAccelerationYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevGravityAccelerationZaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAccelerationJerkXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAccelerationJerkYaxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAccelerationJerkZaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationJerkXaxi |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationJerkYaxi |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationJerkZaxi |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroYaxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroZaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroXaxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroZaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAccelerationYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroJerkXaxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroJerkYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroJerkZaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroJerkXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroJerkYaxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgofStdDevBodyGyroJerkZaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationMagnitude |
| Variable | Mean value of body acceleration |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationMagnitude |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgGravityAcclerationMagnitude |
| Variable | Mean value of body acceleration |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevGravityAcclerationMagnit |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values | Mean value of body acceleration |
|  |  |
| Field Label | AvgGravityGyronMagnitude |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAccelerationXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevGravityGyroMagnitude |
| Variable | Mean value of std deviation body |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyGyroJerkMag |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyGyroJerkMag |
| Variable | Mean value std deviation of body |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationXAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationYAxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationZAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationXAxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationYAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationXAxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationXAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationYAxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationZAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationJerkXAxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationJerkYAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgBodyAcclerationJerkZAxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationJerkXAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationJerkYAxis |
| Variable | Mean value of body acceleration along Y axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevBodyAcclerationJerkZAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationJerkXAxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationJerkYAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgFreqBodyAcclerationJerkZAxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
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| Field Label | AvgfBodyGyroXaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyGyroYaxis |
| Variable | Mean value of body acceleration along X axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyGyroZaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfStdDevBodyGyroXaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfStdDevBodyGyroYaxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfStdDevBodyGyroZaxis |
| Variable | Mean value of body acceleration along Z axis |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyGyroXAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyGyroYAxis |
| Variable | Mean value of body acceleration |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyGyroZAxis |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
| Field Label | AvgGravityAcclerationMagnitude |
| Variable | Mean value of body acceleration |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyAcclerationMagnitude |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values | Mean value of body acceleration |
|  |  |
| Field Label | AvgfStdDevBodyAcclerationMagnitude |
| Variable | Mean value of body acceleration |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyAccMagnitude |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyBodyAccJerkMag |
| Variable | Mean value of std deviation body |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgStdDevfBodyBodyAccJerkMag |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyBodyAccJerkMag |
| Variable | Mean value Freq of body |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyBodyGyroMag |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyBodyGyroMag |
| Variable | Mean value of body Gyro |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfBodyBodyGyroJerkMag |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
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| Field Label | AvgfBodyBodyGyroJerkMag |
| Variable | Mean value of body Gyro |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |
| Field Label | AvgfFreqBodyBodyGyroJerkMag |
| Variable |  |
| Variable Type | Numeric |
| Allowable Values |  |
|  |  |