Week 4 Course CodeCook

*8/14/2020*

The whole script, run\_anlysis.R, would generate a tidy Text File, called "TargetData.txt" at last.

# Order and Grouping Variables

The dataset is grouped and ordered by Subject, then Activity. The activity variable is a factor - it’s ordering is specified by Levels.

|  |  |  |  |
| --- | --- | --- | --- |
| Index | Variable | Class | Description |
| 1 | Subject | Num | Participant’s identifying number. Each participant will have |
|  |  |  | 6 entries, one for each activity |
| 2 | Activity | Factor | The activities that were identified through accelerometer |
|  | | | data. Levels = WALKING, WALKING\_UPSTAIRS, |
| WALKING\_DOWNSTAIRS, SITTING, STANDING, |
| LAYING |

# Mean of Motion Data Variables

The assignment called for a tidy dataset of the mean of certain variables, contains variables with measurements of

1. mean and
2. std

The whole colnames, extracted from TargetData variable from R, are:

|  |  |
| --- | --- |
| Index | Variable Name |
| 1 | subject |
| 2 | activity |
| 3 | TimeBodyAccelerometer.mean...X |
| 4 | TimeBodyAccelerometer.mean...Y |
| 5 | TimeBodyAccelerometer.mean...Z |
| 6 | TimeGravityAccelerometer.mean...X |
| 7 | TimeGravityAccelerometer.mean...Y |
| 8 | TimeGravityAccelerometer.mean...Z |
| 9 | TimeBodyAccelerometerJerk.mean...X |
| 10 | TimeBodyAccelerometerJerk.mean...Y |
| 11 | TimeBodyAccelerometerJerk.mean...Z |
| 12 | TimeBodyGyroscope.mean...X |
| 13 | TimeBodyGyroscope.mean...Y |
| 14 | TimeBodyGyroscope.mean...Z |
| 15 | TimeBodyGyroscopeJerk.mean...X |
| 16 | TimeBodyGyroscopeJerk.mean...Y |
| 17 | TimeBodyGyroscopeJerk.mean...Z |
| 18 | TimeBodyAccelerometerMagnitude.mean.. |
| 19 | TimeGravityAccelerometerMagnitude.mean.. |
| 20 | TimeBodyAccelerometerJerkMagnitude.mean.. |
| 21 | TimeBodyGyroscopeMagnitude.mean.. |
| 22 | TimeBodyGyroscopeJerkMagnitude.mean.. |
| 23 | FrequencyBodyAccelerometer.mean...X |
| 24 | FrequencyBodyAccelerometer.mean...Y |
| 25 | FrequencyBodyAccelerometer.mean...Z |
| 26 | FrequencyBodyAccelerometer.meanFreq...X |
| 27 | FrequencyBodyAccelerometer.meanFreq...Y |
| 28 | FrequencyBodyAccelerometer.meanFreq...Z |
| 29 | FrequencyBodyAccelerometerJerk.mean...X |
| 30 | FrequencyBodyAccelerometerJerk.mean...Y |
| 31 | FrequencyBodyAccelerometerJerk.mean...Z |
| 32 | FrequencyBodyAccelerometerJerk.meanFreq...X |
| 33 | FrequencyBodyAccelerometerJerk.meanFreq...Y |
| 34 | FrequencyBodyAccelerometerJerk.meanFreq...Z |
| 35 | FrequencyBodyGyroscope.mean...X |
| 36 | FrequencyBodyGyroscope.mean...Y |
| 37 | FrequencyBodyGyroscope.mean...Z |
| 38 | FrequencyBodyGyroscope.meanFreq...X |
| 39 | FrequencyBodyGyroscope.meanFreq...Y |
| 40 | FrequencyBodyGyroscope.meanFreq...Z |
| 41 | FrequencyBodyAccelerometerMagnitude.mean.. |
| 42 | FrequencyBodyAccelerometerMagnitude.meanFreq.. |
| 43 | FrequencyBodyAccelerometerJerkMagnitude.mean.. |
| 44 | FrequencyBodyAccelerometerJerkMagnitude.meanFreq.. |
| 45 | FrequencyBodyGyroscopeMagnitude.mean.. |
| 46 | FrequencyBodyGyroscopeMagnitude.meanFreq.. |
| 47 | FrequencyBodyGyroscopeJerkMagnitude.mean.. |
| 48 | FrequencyBodyGyroscopeJerkMagnitude.meanFreq.. |
| 49 | Angle.TimeBodyAccelerometerMean.Gravity. |
| 50 | Angle.TimeBodyAccelerometerJerkMean..GravityMean. |
| 51 | Angle.TimeBodyGyroscopeMean.GravityMean. |
| 52 | Angle.TimeBodyGyroscopeJerkMean.GravityMean. |
| 53 | Angle.X.GravityMean. |
| 54 | Angle.Y.GravityMean. |
| 55 | Angle.Z.GravityMean. |
| 56 | TimeBodyAccelerometer.std...X |
| 57 | TimeBodyAccelerometer.std...Y |
| 58 | TimeBodyAccelerometer.std...Z |
| 59 | TimeGravityAccelerometer.std...X |
| 60 | TimeGravityAccelerometer.std...Y |
| 61 | TimeGravityAccelerometer.std...Z |
| 62 | TimeBodyAccelerometerJerk.std...X |
| 63 | TimeBodyAccelerometerJerk.std...Y |
| 64 | TimeBodyAccelerometerJerk.std...Z |
| 65 | TimeBodyGyroscope.std...X |
| 66 | TimeBodyGyroscope.std...Y |
| 67 | TimeBodyGyroscope.std...Z |
| 68 | TimeBodyGyroscopeJerk.std...X |
| 69 | TimeBodyGyroscopeJerk.std...Y |
| 70 | TimeBodyGyroscopeJerk.std...Z |
| 71 | TimeBodyAccelerometerMagnitude.std.. |
| 72 | TimeGravityAccelerometerMagnitude.std.. |
| 73 | TimeBodyAccelerometerJerkMagnitude.std.. |
| 74 | TimeBodyGyroscopeMagnitude.std.. |
| 75 | TimeBodyGyroscopeJerkMagnitude.std.. |
| 76 | FrequencyBodyAccelerometer.std...X |
| 77 | FrequencyBodyAccelerometer.std...Y |
| 78 | FrequencyBodyAccelerometer.std...Z |
| 79 | FrequencyBodyAccelerometerJerk.std...X |
| 80 | FrequencyBodyAccelerometerJerk.std...Y |
| 81 | FrequencyBodyAccelerometerJerk.std...Z |
| 82 | FrequencyBodyGyroscope.std...X |
| 83 | FrequencyBodyGyroscope.std...Y |
| 84 | FrequencyBodyGyroscope.std...Z |
| 85 | FrequencyBodyAccelerometerMagnitude.std.. |
| 86 | FrequencyBodyAccelerometerJerkMagnitude.std.. |
| 87 | FrequencyBodyGyroscopeMagnitude.std.. |
| 88 | FrequencyBodyGyroscopeJerkMagnitude.std.. |