

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..