Code Book

The following table lists the columns in the tidy_data dataset, providing the field number, field name (as used in the dataset as column headings) and a description in each case. Units are normalized and reported in a bounded range within [-1,1].

Field Number	Field Name	Field Description
1	Activity	Identifies the type of activity performed by the Subject (value selected from:'LAYING', 'SITTING', 'STANDING', WALKING', 'WALKING_DOWNSTAIRS','WALKING_UPSTAIRS')
2	Subject	Identifies the subject who performed the activity (values from 1 to 30)
3	TimeBodyAccelerationMeanX	The average of: The mean of the frequency domain signal of body acceleration in the x-axis plane.
4	TimeBodyAccelerationMeanY	The average of: The mean of the frequency domain signal of body acceleration in the y-axis plane.
5	TimeBodyAccelerationMeanZ	The average of: The mean of the frequency domain signal of body acceleration in the z-axis plane.
6	TimeBodyAccelerationStandardDeviationX	The average of: The standard deviations of the of the frequency domain signal of body acceleration in the x-axis plane.
7	TimeBodyAccelerationStandardDeviationY	The average of: The standard deviations of the of the frequency domain signal of body acceleration in the y-axis plane.
8	TimeBodyAccelerationStandardDeviationZ	The average of: The standard deviations of the of the frequency domain signal of body acceleration in the z-axis plane.
9	TimeGravityAccelerationMeanX	The average of: The mean of the frequency domain signal of Gravity acceleration in the x-axis plane.
10	TimeGravityAccelerationMeanY	The average of: The mean of the frequency domain signal of Gravity acceleration in the y-axis plane.
11	TimeGravityAccelerationMeanZ	The average of: The mean of the frequency domain signal of Gravity acceleration in the z-axis plane.
12	TimeGravityAccelerationStandardDeviationX	The average of: The standard deviations of the of the frequency domain signal of Gravity acceleration in the x-axis plane.
13	TimeGravityAccelerationStandardDe	The average of: The standard deviations of the

	viationY	of the frequency domain signal of Gravity acceleration in the y-axis plane.
14	TimeGravityAccelerationStandardDeviationZ	The average of: The standard deviations of the of the frequency domain signal of Gravity acceleration in the z-axis plane.
15	TimeBodyAccelerationJerkMeanX	The average of: The mean of the frequency domain signal of body acceleration in the x-axis plane.
16	TimeBodyAccelerationJerkMeanY	The average of: The mean of the frequency domain signal of body acceleration in the y-axis plane.
17	TimeBodyAccelerationJerkMeanZ	The average of: The mean of the frequency domain signal of body acceleration in the z-axis plane.
18	TimeBodyAccelerationJerkStandardDeviationX	The average of: The standard deviations of of the frequency domain signal of body acceleration jerk in the x-axis plane.
19	TimeBodyAccelerationJerkStandardDeviationY	The average of: The standard deviations of of the frequency domain signal of body acceleration jerk in the y-axis plane.
20	TimeBodyAccelerationJerkStandardDeviationZ	The average of: The standard deviations of of the frequency domain signal of body acceleration jerk in the z-axis plane.
21	TimeBodyGyroscopeMeanX	The average of: The mean of the frequency domain gyroscope signal in the x-axis plane.
22	TimeBodyGyroscopeMeanY	The average of: The mean of the frequency domain gyroscope signal in the y-axis plane.
23	TimeBodyGyroscopeMeanZ	The average of: The mean of the frequency domain gyroscope signal in the z-axis plane.
24	TimeBodyGyroscopeStandardDeviationX	The average of: The standard deviations of the of the frequency domain gyroscope signal in the x-axis plane.
25	TimeBodyGyroscopeStandardDeviationY	The average of: The standard deviations of the of the frequency domain gyroscope signal in theyx-axis plane.
26	TimeBodyGyroscopeStandardDeviationZ	The average of: The standard deviations of the of the frequency domain gyroscope signal in the z-axis plane.
27	TimeBodyGyroscopeJerkMeanX	The average of: The mean of the frequency domain gyroscope jerk signal in the x-axis plane.
28	TimeBodyGyroscopeJerkMeanY	The average of: The mean of the frequency domain gyroscope jerk signal in the y-axis plane.
29	TimeBodyGyroscopeJerkMeanZ	The average of: The mean of the frequency domain gyroscope jerk signal in the z-axis plane.
30	TimeBodyGyroscopeJerkStandardDe	The average of: The standard deviations of the

	viationX	of the frequency domain gyroscope jerk signal in the x-axis plane.
31	TimeBodyGyroscopeJerkStandardDeviationY	The average of: The standard deviations of the of the frequency domain gyroscope jerk signal in the y-axis plane.
32	TimeBodyGyroscopeJerkStandardDeviationZ	The average of: The standard deviations of the of the frequency domain gyroscope jerk signal in the z-axis plane.
33	TimeBodyAccelerationMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body acceleration.
34	TimeBodyAccelerationMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body acceleration.
35	TimeGravityAccelerationMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of gravity acceleration.
36	TimeGravityAccelerationMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of gravity acceleration.
37	TimeBodyAccelerationJerkMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body acceleration jerk.
38	TimeBodyAccelerationJerkMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body acceleration jerk.
39	TimeBodyGyroscopeMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of gyroscope signal.
40	TimeBodyGyroscopeMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of gyroscope signal.
41	TimeBodyGyroscopeJerkMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of gyroscope jerk signal.
42	TimeBodyGyroscopeJerkMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of gyroscope jerk signal.
43	FrequencyBodyAccelerationMeanX	The average of: The mean of the frequency domain signal of body acceleration in the x-axis plane.
44	FrequencyBodyAccelerationMeanY	The average of: The mean of the frequency domain signal of body acceleration in the y-axis plane.
45	FrequencyBodyAccelerationMeanZ	The average of: The mean of the frequency domain signal of body acceleration in the z-axis plane.
46	FrequencyBodyAccelerationStandar	The average of: The standard deviations of the

	dDeviationX	frequency domain signal of body acceleration in the x-axis plane.
47	FrequencyBodyAccelerationStandardDeviationY	The average of: The standard deviations of the frequency domain signal of body acceleration in the y-axis plane.
48	FrequencyBodyAccelerationStandardDeviationZ	The average of: The standard deviations of the frequency domain signal of body acceleration in the z-axis plane.
49	FrequencyBodyAccelerationMeanFrequencyX	The average of: The mean frequency of the frequency domain signal of Body acceleration in the x-axis plane.
50	FrequencyBodyAccelerationMeanFrequencyY	The average of: The mean frequency of the frequency domain signal of Body acceleration in the y-axis plane.
51	FrequencyBodyAccelerationMeanFrequencyZ	The average of: The mean frequency of the frequency domain signal of Body acceleration in the z-axis plane.
52	FrequencyBodyAccelerationJerkMeanX	The average of: The mean of the frequency domain signal of Body acceleration jerk in the x-axis plane.
53	FrequencyBodyAccelerationJerkMeanY	The average of: The mean of the frequency domain signal of Body acceleration jerk in the y-axis plane.
54	FrequencyBodyAccelerationJerkMeanZ	The average of: The mean of the frequency domain signal of Body acceleration jerk in the z-axis plane.
55	FrequencyBodyAccelerationJerkStandardDeviationX	The average of: The standard deviations of the frequency domain signal of Body acceleration jerk in the x-axis plane.
56	FrequencyBodyAccelerationJerkStandardDeviationY	The average of: The standard deviations of the frequency domain signal of Body acceleration jerk in the y-axis plane.
57	FrequencyBodyAccelerationJerkStandardDeviationZ	The average of: The standard deviations of the frequency domain signal of Body acceleration jerk in the z-axis plane.
58	FrequencyBodyAccelerationJerkMeanFrequencyX	The average of: The mean frequency of the frequency domain signal of Body acceleration jerk in the x-axis plane.
59	FrequencyBodyAccelerationJerkMeanFrequencyY	The average of: The mean frequency of the frequency domain signal of Body acceleration jerk in the y-axis plane.
60	FrequencyBodyAccelerationJerkMeanFrequencyZ	The average of: The mean frequency of the frequency domain signal of Body acceleration jerk in the z-axis plane.
61	FrequencyBodyGyroscopeMeanX	The average of: The mean of the frequency domain signal of body gyroscope in the x-axis plane.
62	FrequencyBodyGyroscopeMeanY	The average of: The mean of the frequency

		domain signal of body gyroscope in the y-axis plane.
63	FrequencyBodyGyroscopeMeanZ	The average of: The mean of the frequency domain signal of body gyroscope in the z-axis plane.
64	FrequencyBodyGyroscopeStandardDeviationX	The average of: The standard deviations of the frequency domain signal of body gyroscope in the x-axis plane.
65	FrequencyBodyGyroscopeStandardDeviationY	The average of: The standard deviations of the frequency domain signal of body gyroscope in the y-axis plane.
66	FrequencyBodyGyroscopeStandardDeviationZ	The average of: The standard deviations of the frequency domain signal of body gyroscope in the z-axis plane.
67	FrequencyBodyGyroscopeMeanFrequencyX	The average of: The mean frequency of the frequency domain signal of Body gyroscope in the x-axis plane.
68	FrequencyBodyGyroscopeMeanFrequencyY	The average of: The mean frequency of the frequency domain signal of Body gyroscope in the y-axis plane.
69	FrequencyBodyGyroscopeMeanFrequencyZ	The average of: The mean frequency of the frequency domain signal of Body gyroscope in the z-axis plane.
70	FrequencyBodyAccelerationMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body acceleration.
71	FrequencyBodyAccelerationMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body acceleration.
72	FrequencyBodyAccelerationMagnitudeMeanFrequency	The average of: The mean frequency of the frequency domain signal of the magnitude of body acceleration.
73	FrequencyBodyBodyAccelerationJerkMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body acceleration jerk.
74	FrequencyBodyBodyAccelerationJerkMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body acceleration jerk.
75	FrequencyBodyBodyAccelerationJerkMagnitudeMeanFrequency	The average of: The mean frequency of the frequency domain signal of the magnitude of body acceleration jerk.
76	FrequencyBodyBodyGyroscopeMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body gyroscope.
77	FrequencyBodyBodyGyroscopeMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body gyroscope.
78	FrequencyBodyBodyGyroscopeMag	The average of: The mean frequency of the

	nitudeMeanFrequency	frequency domain signal of the magnitude of body gyroscope.
79	FrequencyBodyBodyGyroscopeJerkMagnitudeMean	The average of: The mean of the frequency domain signal of the magnitude of body gyroscope jerk.
80	FrequencyBodyBodyGyroscopeJerkMagnitudeStandardDeviation	The average of: The standard deviations of of the frequency domain signal of the magnitude of body gyroscope jerk.
81	FrequencyBodyBodyGyroscopeJerkMagnitudeMeanFrequency	The average of: The mean frequency of the frequency domain signal of the magnitude of body gyroscope jerk.
82	AngleTimeBodyAccelerationMeanGravity	The average of: The angle of the frequency domain signal of body acceleration.
83	AngleTimeBodyAccelerationJerkMeanGravityMean	The average of: The angle of the frequency domain signal of body acceleration jerk.
84	AngleTimeBodyGyroscopeMeanGravityMean	The average of: The angle of the frequency domain signal of body gyroscope.
85	AngleTimeBodyGyroscopeJerkMeanGravityMean	The average of: The angle of the frequency domain signal of body gyroscope jerk.
86	AngleXGravityMean	The average of : the angle of Gravity mean in the x-axis plane.
87	AngleYGravityMean	The average of : the angle of Gravity mean in the y-axis plane.
88	AngleZGravityMean	The average of : the angle of Gravity mean in the z-axis plane.