CODE BOOK - Samsung Smartphone Data Set [1] Tidy Data (tidyData.txt)

(This is actually a subset of the data extracted and manipulated as part of the Class Project for Getting and Cleaning Data for Coursera)

Variable Name	Field Type/ Width	Variable Description	Range of Values
Subject	Integer/1	Subject Identifier	1-30
Activity	Factor	Activity Type	6 levels; WALKING, WALKING_U PSTAIRS, WALKING DOWNSTAIR S, SITTING, STANDING, LAYING
TimeBodyAccelerationMean.Xaxis	Numeric/15	Mean of time domain signal of	Normalized
,	decimals	body acceleration on X axis	within[-1, 1]
TimeBodyAccelerationMean.Yaxis	Numeric/15	Mean of time domain signal of	Normalized
,	decimals	body acceleration on Y axis	within[-1, 1]
TimeBodyAccelerationMean.Zaxis	Numeric/15 decimals	Mean of time domain signal of	Normalized
		body acceleration on Z axis Std. Deviation of time domain	within[-1, 1] Normalized
TimeBodyAccelerationStDev.Xaxis	Numeric/15 decimals	signal of body acceleration on X axis	within[-1, 1]
TimeBodyAccelerationStDev.Yaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration on X axis	Normalized within[-1, 1]
TimeBodyAccelerationStDev.Zaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration on X axis	Normalized within[-1, 1]
TimeGravityAccelerationMean.Xaxis	Numeric/15 decimals	Mean of time domain signal of gravity acceleration on X axis	Normalized within[-1, 1]
TimeGravityAccelerationMean.Yaxis	Numeric/15 decimals	Mean of time domain signal of gravity acceleration on Y axis	Normalized within[-1, 1]
TimeGravityAccelerationMean.Zaxis	Numeric/15 decimals	Mean of time domain signal of gravity acceleration on Z axis	Normalized within[-1, 1]
TimeGravityAccelerationStDev.Xaxis	Numeric/15 decimals	Std. Deviation of time domain signal of gravity acceleration on X axis	Normalized within[-1, 1]
TimeGravityAccelerationStDev.Yaxis	Numeric/15 decimals	Std. Deviation of time domain signal of gravity acceleration on Y axis	Normalized within[-1, 1]
TimeGravityAccelerationStDev.Zaxis	Numeric/15 decimals	Std. Deviation of time domain signal of gravity acceleration on Z axis	Normalized within[-1, 1]
TimeBodyAccelerationJerkMean.Xaxis	Numeric/15 decimals	Mean of time domain signal of body acceleration jerk on X axis	Normalized within[-1, 1]
TimeBodyAccelerationJerkMean.Yaxis	Numeric/15 decimals	Mean of time domain signal of body acceleration jerk on Y axis	Normalized within[-1, 1]
TimeBodyAccelerationJerkMean.Zaxis	Numeric/15	Mean of time domain signal of	Normalized

	decimals	body acceleration jerk on Z axis	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyAccelerationJerkStDev.Xaxis	decimals	signal of body acceleration jerk on	within[-1, 1]
zzzaj, kooska aktorio koostinano		X axis	
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyAccelerationJerkStDev.Yaxis	decimals	signal of body acceleration jerk on	within[-1, 1]
•		Y axis	
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyAccelerationJerkStDev.Zaxis	decimals	signal of body acceleration jerk on	within[-1, 1]
<u> </u>		Z axis	
TimeBodyGyroscopeMean.Xaxis	Numeric/15	Mean of time domain signal of	Normalized
Timebodydyroscopeiwean.xaxis	decimals	body gyroscope on X axis	within[-1, 1]
TimeBodyGyroscopeMean.Yaxis	Numeric/15	Mean of time domain signal of	Normalized
Timebodydyroscopeiwean. Taxis	decimals	body gyroscope on Y axis	within[-1, 1]
	Numeric/15	Mean of time domain signal of	Normalized
TimeBodyGyroscopeMean.Zaxis	decimals	body gyroscope on Z axis	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeStDev.Xaxis	decimals	signal of body gyroscope on X axis	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeStDev.Yaxis	decimals	signal of body gyroscope on Y axis	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeStDev.Zaxis	decimals	signal of body gyroscope on Z axis	within[-1, 1]
	Numeric/15	Mean of time domain signal of	Normalized
TimeBodyGyroscopeJerkMean.Xaxis	decimals	body gyroscope jerk on X axis	within[-1, 1]
	Numeric/15	Mean of time domain signal of	Normalized
TimeBodyGyroscopeJerkMean.Yaxis	decimals	body gyroscope jerk on Y axis	within[-1, 1]
	Numeric/15	Mean of time domain signal of	Normalized
TimeBodyGyroscopeJerkMean.Zaxis	decimals	body gyroscope jerk on Z axis	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeJerkStDev.Xaxis	decimals	signal of body gyroscope jerk on X	within[-1, 1]
		axis	
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeJerkStDev.Yaxis	decimals	signal of body gyroscope jerk on Y	within[-1, 1]
, , ,		axis	
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyGyroscopeJerkStDev.Zaxis	decimals	signal of body gyroscope jerk on Z	within[-1, 1]
		axis	
TimeBodyAccelerationMagnitudeMean	Numeric/15	Mean of time domain signal of	Normalized
Time Body, receive a domina a fint ducivican	decimals	body acceleration magnitude	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeBodyAccelerationMagnitudeStDev	decimals	signal of body acceleration	within[-1, 1]
		magnitude	
TimeGravityAccelerationMagnitudeMean	Numeric/15	Mean of time domain signal of	Normalized
Time Stavity/ teceleration viaginta del vican	decimals	gravity acceleration magnitude	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
TimeGravityAccelerationMagnitudeStDev	decimals	signal of gravity acceleration	within[-1, 1]
		magnitude	
TimeBodyAccelerationJerkMagnitudeMean	Numeric/15	Mean of time domain signal of	Normalized
Time body Acceleration bei kiviagnituueiviean	decimals	body acceleration magnitude	within[-1, 1]
	Numeric/15	Std. Deviation of time domain	Normalized
${\bf Time Body Acceleration Jerk Magnitude St Dev}$	decimals	signal of body acceleration jerk	within[-1, 1]
		magnitude	
TimeBodyGyroscopeMagnitudeMean	Numeric/15	Mean of time domain signal of	Normalized
	decimals	body gyroscope magnitude	within[-1, 1]
TimeBodyGyroscopeMagnitudeStDev	Numeric/15	Std. Deviation of time domain	Normalized
	decimals	signal of body gyroscope	within[-1, 1]
		magnitude	

TimeBodyGyroscopeJerkMagnitudeMean	Numeric/15	Mean of time domain signal of	Normalized
TimebodyGyToscopeserkiviagiiitudeivieaii	decimals	body gyroscope jerk magnitude	within[-1, 1]
TimeBodyGyroscopeJerkMagnitudeStDev	Numeric/15	Std. Deviation of time domain	Normalized
	decimals	signal of body gyroscope jerk	within[-1, 1]
		magnitude	
FFTBodyAccelerationMean.Xaxis	Numeric/15	Mean of frequency domain signal	Normalized
	decimals	of body acceleration on X axis	within[-1, 1]
FFTBodyAccelerationMean.Yaxis	Numeric/15	Mean of frequency domain signal	Normalized
	decimals	of body acceleration on Y axis	within[-1, 1]
FFTBodyAccelerationMean.Zaxis	Numeric/15	Mean of frequency domain signal	Normalized
	decimals	of body acceleration on Z axis	within[-1, 1]
FFTBodyAccelerationStDev.Xaxis	Numeric/15	Std. Deviation of frequency	Normalized
	decimals	domain signal of body	within[-1, 1]
		acceleration on X axis	
	Numeric/15	Std. Deviation of frequency	Normalized
FFTBodyAccelerationStDev.Yaxis	decimals	domain signal of body	within[-1, 1]
		acceleration on Y axis	
	Numeric/15	Std. Deviation of frequency	Normalized
FFTBodyAccelerationStDev.Zaxis	decimals	domain signal of body	within[-1, 1]
		acceleration on Z axis	
	Numeric/15	Mean frequency obtained by	Normalized
	decimals	weighted average of frequency	within[-1, 1]
FFTBodyAccelerationMeanFreq.Xaxis		components of frequency domain	
		signal of body acceleration on X	
		axis	
	Numeric/15	Mean frequency obtained by	Normalized
	decimals	weighted average of frequency	within[-1, 1]
FFTBodyAccelerationMeanFreq.Yaxis		components of frequency domain	
		signal of body acceleration on Y	
		axis	
	Numeric/15	Mean frequency obtained by	Normalized
	decimals	weighted average of frequency	within[-1, 1]
FFTBodyAccelerationMeanFreq.Zaxis		components of frequency domain	
		signal of body acceleration on Z	
		axis	
FFTBodyAccelerationJerkMean.Xaxis	Numeric/15	Mean of frequency domain signal	Normalized
	decimals	of body acceleration jerk on X axis	within[-1, 1]
FFTBodyAccelerationJerkMean.Yaxis	Numeric/15	Mean of frequency domain signal	Normalized
p	decimals	of body acceleration jerk on Y axis	within[-1, 1]
FFTBodyAccelerationJerkMean.Zaxis	Numeric/15	Mean of frequency domain signal	Normalized
p	decimals	of body acceleration jerk on Z axis	within[-1, 1]
	Numeric/15	Std. Deviation of frequency	Normalized
FFTBodyAccelerationJerkStDev.Xaxis	decimals	domain signal of body	within[-1, 1]
		acceleration jerk on X axis	
	Numeric/15	Std. Deviation of frequency	Normalized
FFTBodyAccelerationJerkStDev.Yaxis	decimals	domain signal of body	within[-1, 1]
		acceleration jerk on X axis	
	Numeric/15	Std. Deviation of frequency	Normalized
FFTBodyAccelerationJerkStDev.Zaxis	decimals	domain signal of body	within[-1, 1]
		acceleration jerk on X axis	
FFTBodyAccelerationJerkMeanFreq.Xaxis	Numeric/15	Mean frequency obtained by	Normalized
	decimals	weighted average of frequency	within[-1, 1]
		components of frequency domain	
		signal of body acceleration jerk on	
		X axis	
FFTBodyAccelerationJerkMeanFreq.Yaxis	Numeric/15	Mean frequency obtained by	Normalized
	decimals	weighted average of frequency	within[-1, 1]
		components of frequency domain	

		signal of body acceleration jerk on Y axis	
FFTBodyAccelerationJerkMeanFreq.Zaxis	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body acceleration jerk on Z axis	Normalized within[-1, 1]
FFTBodyGyroscopeMean.Xaxis	Numeric/15 decimals	Mean of frequency domain signal of body gyroscope on X axis	Normalized within[-1, 1]
FFTBodyGyroscopeMean.Yaxis	Numeric/15 decimals	Mean of frequency domain signal of body gyroscope on Y axis	Normalized within[-1, 1]
FFTBodyGyroscopeMean.Zaxis	Numeric/15 decimals	Mean of frequency domain signal of body gyroscope on Z axis	Normalized within[-1, 1]
FFTBodyGyroscopeStDev.Xaxis	Numeric/15 decimals	Std. Deviation of frequency domain signal of body gyroscope on X axis	Normalized within[-1, 1]
FFTBodyGyroscopeStDev.Yaxis	Numeric/15 decimals	Std. Deviation of frequency domain signal of body gyroscope on Y axis	Normalized within[-1, 1]
FFTBodyGyroscopeStDev.Zaxis	Numeric/15 decimals	Std. Deviation of frequency domain signal of body gyroscope on Z axis	Normalized within[-1, 1]
FFTBodyGyroscopeMeanFreq.Xaxis	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body gyroscope on X axis	Normalized within[-1, 1]
FFTBodyGyroscopeMeanFreq.Yaxis	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body gyroscope on Y axis	Normalized within[-1, 1]
FFTBodyGyroscopeMeanFreq.Zaxis	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body gyroscope on Z axis	Normalized within[-1, 1]
FFTBodyAccelerationMagnitudeMean	Numeric/15 decimals	Mean of frequency domain signal of body acceleration magnitude	Normalized within[-1, 1]
FFTBodyAccelerationMagnitudeStDev	Numeric/15 decimals	Std. Deviation of frequency domain signal of body acceleration magnitude	Normalized within[-1, 1]
FFTBodyAccelerationMagnitudeMeanFreq	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body acceleration magnitude	Normalized within[-1, 1]
FFTBodyAccelerationJerkMagnitudeMean	Numeric/15 decimals	Mean of frequency domain signal of body acceleration jerk magnitude	Normalized within[-1, 1]
FFTBodyAccelerationJerkMagnitudeStDev	Numeric/15 decimals	Std. Deviation of frequency domain signal of body acceleration jerk magnitude	Normalized within[-1, 1]
FFTBodyAccelerationJerkMagnitudeMeanFreq	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body acceleration jerk magnitude	Normalized within[-1, 1]
FFTBodyGyroscopeMagnitudeMean	Numeric/15 decimals	Mean of frequency domain signal of body gyroscope magnitude	Normalized within[-1, 1]
FFTBodyGyroscopeMagnitudeStDev	Numeric/15	Std. Deviation of frequency	Normalized

	decimals	domain signal of body gyroscope magnitude	within[-1, 1]
FFTBodyGyroscopeMagnitudeMeanFreq	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body gyroscope magnitude	Normalized within[-1, 1]
FFTBodyGyroscopeJerkMagnitudeMean	Numeric/15 decimals	Mean of frequency domain signal of body gyroscope jerk magnitude	Normalized within[-1, 1]
FFTBodyGyroscopeJerkMagnitudeStDev	Numeric/15 decimals	Std. Deviation of frequency domain signal of body gyroscope jerk magnitude	Normalized within[-1, 1]
FFTBodyGyroscopeJerkMagnitudeMeanFreq	Numeric/15 decimals	Mean frequency obtained by weighted average of frequency components of frequency domain signal of body gyroscope jerk magnitude	Normalized within[-1, 1]

^[1] Davide Anguita, Alessandro Ghio, Luca Oneto, Xavier Parra and Jorge L. Reyes-Ortiz. Human Activity Recognition on Smartphones using a Multiclass Hardware-Friendly Support Vector Machine. International Workshop of Ambient Assisted Living (IWAAL 2012). Vitoria-Gasteiz, Spain. Dec 2012