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_UPSTAIRS, WALKING DOWNSTAIRS, SITTING, STANDING, LAYING
TimeBodyAccelerationMean.Xaxis	Numeric/15 decimals	Mean of time domain signal of body acceleration on X axis	Normalized within[-1, 1]
TimeBodyAccelerationMean.Yaxis	Numeric/15 decimals	Mean of time domain signal of body acceleration on Y axis	Normalized within[-1, 1]
TimeBodyAccelerationMean.Zaxis	Numeric/15 decimals	Mean of time domain signal of body acceleration on Z axis	Normalized within[-1, 1]
TimeBodyAccelerationStDev.Xaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration on X axis	Normalized 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]
TimeBodyAccelerationJerkStDev.Xaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration jerk on X axis	Normalized within[-1, 1]
TimeBodyAccelerationJerkStDev.Yaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration jerk on Y axis	Normalized within[-1, 1]
TimeBodyAccelerationJerkStDev.Zaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration jerk on Z axis	Normalized within[-1, 1]
TimeBodyGyroscopeMean.Xaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope on X axis	Normalized within[-1, 1]
TimeBodyGyroscopeMean.Yaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope on Y axis	Normalized within[-1, 1]
TimeBodyGyroscopeMean.Zaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope on Z axis	Normalized within[-1, 1]
TimeBodyGyroscopeStDev.Xaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope on X axis	Normalized within[-1, 1]
TimeBodyGyroscopeStDev.Yaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope on Y axis	Normalized within[-1, 1]
TimeBodyGyroscopeStDev.Zaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope on Z axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkMean.Xaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope jerk on X axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkMean.Yaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope jerk on Y axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkMean.Zaxis	Numeric/15 decimals	Mean of time domain signal of body gyroscope jerk on Z axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkStDev.Xaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope jerk on X axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkStDev.Yaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope jerk on Y axis	Normalized within[-1, 1]
TimeBodyGyroscopeJerkStDev.Zaxis	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope jerk on Z axis	Normalized within[-1, 1]
TimeBodyAccelerationMagnitudeMean	Numeric/15 decimals	Mean of time domain signal of body acceleration magnitude	Normalized within[-1, 1]
TimeBodyAccelerationMagnitudeStDev	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration magnitude	Normalized within[-1, 1]
TimeGravityAccelerationMagnitudeMean	Numeric/15 decimals	Mean of time domain signal of gravity acceleration magnitude	Normalized within[-1, 1]
TimeGravityAccelerationMagnitudeStDev	Numeric/15 decimals	Std. Deviation of time domain signal of gravity acceleration magnitude	Normalized within[-1, 1]
TimeBodyAccelerationJerkMagnitudeMean	Numeric/15 decimals	Mean of time domain signal of body acceleration magnitude	Normalized within[-1, 1]
TimeBodyAccelerationJerkMagnitudeStDev	Numeric/15 decimals	Std. Deviation of time domain signal of body acceleration jerk magnitude	Normalized within[-1, 1]
TimeBodyGyroscopeMagnitudeMean	Numeric/15 decimals	Mean of time domain signal of body gyroscope magnitude	Normalized within[-1, 1]
TimeBodyGyroscopeMagnitudeStDev	Numeric/15 decimals	Std. Deviation of time domain signal of body gyroscope magnitude	Normalized within[-1, 1]

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

		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]
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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]
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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