

CodeBook

Getting and Cleaning Data

Course Project

Notes -

1. I apologize for the poor description, English is not my native language
2. I completed the task at the last minute so **unfortunately I did not have much time to invest in CodeBook**
3. I do not really know what should be included in the CodeBook
4. Good luck and productive learning in coursera

Human Activity Recognition Using Smartphones Dataset

Version 1.0

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The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years. Each person performed six activities (WALKING, WALKING_UPSTAIRS, WALKING_DOWNSTAIRS, SITTING, STANDING, LAYING) wearing a smartphone (Samsung Galaxy S II) on the waist. Using its embedded accelerometer and gyroscope, we captured 3-axial linear acceleration and 3-axial angular velocity at a constant rate of 50Hz. The experiments have been video-recorded to label the data manually. The obtained dataset has been aggregated into a dataset with means of data only.

Activity	6 Activity under test, Walking, walkingUp, walkingDown, sitting, standing, laying
Subjects	Number between 1-30 for 30 subjects
<p>Variable Name: 3 TimeBodyAccelerationMeanX Variable Class: numeric num [1:180] 0.277 0.255 0.289 0.261 0.279...</p> <p>range: 0.22159824394 range: 0.3014610196</p> <p>-----</p> <p>Variable Name: 4 TimeBodyAccelerationMeanY Variable Class: numeric num [1:180] -0.01738 -0.02395 -0.00992 -0.00131 -0.01614...</p> <p>range: -0.0405139534294 range: -0.00130828765170213</p> <p>-----</p> <p>Variable Name: 5 TimeBodyAccelerationMeanZ Variable Class: numeric num [1:180] -0.1111 -0.0973 -0.1076 -0.1045 -0.1106...</p> <p>range: -0.152513899520833 range: -0.07537846886</p> <p>-----</p> <p>Variable Name: 6 TimeGraviTimeyAccelerationMeanX Variable Class: numeric num [1:180] -0.284 -0.355 0.03 -0.977 -0.996...</p> <p>range: -0.996068635384615 range: 0.626917070512821</p> <p>-----</p> <p>Variable Name: 7 TimeGraviTimeyAccelerationMeanY Variable Class: numeric num [1:180] 0.11446 -0.00232 -0.03194 -0.92262 -0.97319...</p> <p>range: -0.990240946666667 range: 0.616937015333333</p> <p>-----</p> <p>Variable Name: 8 TimeGraviTimeyAccelerationMeanZ Variable Class: numeric num [1:180] -0.26 -0.0195 -0.2304 -0.9396 -0.9798...</p> <p>range: -0.987658662307692 range: 0.609017879074074</p> <p>-----</p> <p>Variable Name: 9 TimeBodyAccelerationJerkMeanX Variable Class: numeric num [1:180] 0.935 0.893 0.932 0.832 0.943...</p> <p>range: -0.680043155060241 range: 0.974508732</p>	

Variable Name: 10 TimeBodyAccelerationJerkMeanY

Variable Class: numeric

num [1:180] -0.282 -0.362 -0.267 0.204 -0.273...

range: -0.479894842941176

range: 0.956593814210526

Variable Name: 11 TimeBodyAccelerationJerkMeanZ

Variable Class: numeric

num [1:180] -0.0681 -0.0754 -0.0621 0.332 0.0135...

range: -0.49508872037037

range: 0.9578730416

Variable Name: 12 TimeBodyGyroscopeMeanX

Variable Class: numeric

num [1:180] -0.977 -0.956 -0.951 -0.968 -0.994...

range: -0.996764227384615

range: -0.829554947808219

Variable Name: 13 TimeBodyGyroscopeMeanY

Variable Class: numeric

num [1:180] -0.971 -0.953 -0.937 -0.936 -0.981...

range: -0.99424764884058

range: -0.643578361424658

Variable Name: 14 TimeBodyGyroscopeMeanZ

Variable Class: numeric

num [1:180] -0.948 -0.912 -0.896 -0.949 -0.976...

range: -0.990957249538462

range: -0.610161166287671

Variable Name: 15 TimeBodyGyroscopeJerkMeanX

Variable Class: numeric

num [1:180] 0.074 0.1014 0.0542 0.0775 0.0754...

range: 0.0426880986186441

range: 0.130193043809524

Variable Name: 16 TimeBodyGyroscopeJerkMeanY

Variable Class: numeric

num [1:180] 0.028272 0.019486 0.02965 -0.000619 0.007976...

range: -0.0386872111282051

range: 0.056818586275

Variable Name: 17 TimeBodyGyroscopeJerkMeanZ

Variable Class: numeric

num [1:180] -0.00417 -0.04556 -0.01097 -0.00337 -0.00369...

range: -0.0674583919268293

range: 0.0380533591627451

Variable Name: 18 TimeBodyAccelerationMagMean

Variable Class: numeric

num [1:180] -0.1136 -0.4468 -0.0123 -0.9864 -0.9946...

range: -0.994604542264151

range: 0.544273037307692

Variable Name: 19 TimeGraviTimeyAccelerationMagMean

Variable Class: numeric

num [1:180] 0.067 -0.378 -0.102 -0.981 -0.986...

range: -0.989513565652174

range: 0.355306716915385

Variable Name: 20 TimeBodyAccelerationJerkMagMean

Variable Class: numeric

num [1:180] -0.503 -0.707 -0.346 -0.988 -0.992...

range: -0.993288313333333

range: 0.031015707775926

Variable Name: 21 TimeBodyGyroscopeMagMean

Variable Class: numeric

num [1:180] -0.0418 0.0505 -0.0351 -0.0454 -0.024...

range: -0.205775427307692

range: 0.19270447595122

Variable Name: 22 TimeBodyGyroscopeJerkMagMean

Variable Class: numeric

num [1:180] -0.0695 -0.1662 -0.0909 -0.0919 -0.0594...

range: -0.204205356087805

range: 0.0274707556666667

Variable Name: 23 FFTBodyAccelerationMeanX

Variable Class: numeric

num [1:180] 0.0849 0.0584 0.0901 0.0629 0.0748...

range: -0.0724546025804878

range: 0.179102058245614

Variable Name: 24 FFTBodyAccelerationMeanY

Variable Class: numeric

num [1:180] -0.474 -0.545 -0.458 -0.977 -0.987...

range: -0.994276591304348

range: 0.267657219333333

Variable Name: 25 FFTBodyAccelerationMeanZ

Variable Class: numeric

num [1:180] -0.05461 0.00411 -0.12635 -0.96647 -0.98773...

range: -0.994210471914894

range: 0.476518714444444

Variable Name: 26 FFTBodyAccelerationJerkMeanX

Variable Class: numeric

num [1:180] -0.344 -0.507 -0.125 -0.941 -0.981...

range: -0.985538363333333

range: 0.564875818162963

Variable Name: 27 FFTBodyAccelerationJerkMeanY

Variable Class: numeric

num [1:180] -0.09 -0.1222 -0.074 -0.0937 -0.0996...

range: -0.157212539189362

range: -0.0220916265065217

Variable Name: 28 FFTBodyAccelerationJerkMeanZ

Variable Class: numeric

num [1:180] -0.0398 -0.0421 -0.044 -0.0402 -0.0441...

range: -0.0768089915604167

range: -0.0132022768074468

Variable Name: 29 FFTBodyGyroscopeMeanX

Variable Class: numeric

num [1:180] -0.0461 -0.0407 -0.027 -0.0467 -0.049...

range: -0.0924998531372549

range: -0.00694066389361702

Variable Name: 30 FFTBodyGyroscopeMeanY

Variable Class: numeric

num [1:180] -0.207 -0.615 -0.487 -0.992 -0.993...

range: -0.99654254057971

range: 0.179148649684615

Variable Name: 31 FFTBodyGyroscopeMeanZ

Variable Class: numeric

num [1:180] -0.304 -0.602 -0.239 -0.99 -0.995...

range: -0.997081575652174

range: 0.295945926186441

Variable Name: 32 FFTBodyAccelerationMagMean

Variable Class: numeric

num [1:180] -0.404 -0.606 -0.269 -0.988 -0.992...

range: -0.995380794637681

range: 0.193206498960417

Variable Name: 33 FFTBodyBodyAccelerationJerkMagMean

Variable Class: numeric

num [1:180] -0.137 -0.1299 0.0272 -0.9485 -0.9843...

range: -0.986493196666667

range: 0.644604325128205

Variable Name: 34 FFTBodyBodyGyroscopeMagMean

Variable Class: numeric

num [1:180] -0.2197 -0.325 0.0199 -0.9271 -0.9819...

range: -0.986464542615385

range: 0.428405922622222

Variable Name: 35 FFTBodyBodyGyroscopeJerkMagMean

Variable Class: numeric

num [1:180] -0.137 -0.1299 0.0272 -0.9485 -0.9843...

range: -0.986493196666667

range: 0.644604325128205

Variable Name: 36 TimeBodyAccelerationStandardDeviationX

Variable Class: numeric

num [1:180] -0.2197 -0.325 0.0199 -0.9271 -0.9819...

range: -0.986464542615385

range: 0.428405922622222

Variable Name: 37 TimeBodyAccelerationStandardDeviationY

Variable Class: numeric

num [1:180] -0.1414 -0.4665 -0.0894 -0.9874 -0.9924...

range: -0.99281471515625

range: 0.434490400974359

Variable Name: 38 TimeBodyAccelerationStandardDeviationZ

Variable Class: numeric

num [1:180] -0.0745 -0.479 -0.0258 -0.9841 -0.9931...

range: -0.994646916811594

range: 0.450612065720513

Variable Name: 39 TimeGraviTimeyAccelerationStandardDeviationX

Variable Class: numeric

num [1:180] -0.161 -0.1267 -0.0757 -0.9309 -0.9765...

range: -0.980740846769231

range: 0.418004608615385

Variable Name: 40 TimeGraviTimeyAccelerationStandardDeviationY

Variable Class: numeric

num [1:180] -0.187 -0.149 -0.226 -0.935 -0.979...

range: -0.981372675614035

range: 0.299975979851852

Variable Name: 41 TimeGraviTimeyAccelerationStandardDeviationZ

Variable Class: numeric

num [1:180] -0.299 -0.595 -0.295 -0.992 -0.995...

range: -0.997322526811594

range: 0.0875816618205128

Variable Name: 42 TimeBodyAccelerationJerkStandardDeviationX

Variable Class: numeric

num [1:180] -0.325 -0.649 -0.307 -0.988 -0.995...

range: -0.997666071594203

range: 0.250173204117966

Variable Name: 43 TimeBodyAccelerationJerkStandardDeviationY

Variable Class: numeric

num [1:180] -0.2028 -0.4043 0.0382 -0.9796 -0.9952...

range: -0.995249932641509

range: 0.537012022051282

Variable Name: 44 TimeBodyAccelerationJerkStandardDeviationZ

Variable Class: numeric

num [1:180] 0.08971 -0.19098 0.00155 -0.94408 -0.97707...

range: -0.989034304057971

range: 0.524187686888889

Variable Name: 45 TimeBodyGyroscopeStandardDeviationX

Variable Class: numeric

num [1:180] -0.332 -0.433 -0.226 -0.959 -0.985...

range: -0.989473926666667

range: 0.280735952206667

Variable Name: 46 TimeBodyGyroscopeStandardDeviationY

Variable Class: numeric

num [1:180] -0.3191 -0.3374 0.0243 -0.9764 -0.996...

range: -0.996604570307692

range: 0.658506543333333

Variable Name: 47 TimeBodyGyroscopeStandardDeviationZ

Variable Class: numeric

num [1:180] 0.056 0.0218 -0.113 -0.9173 -0.9723...

range: -0.990680395362319

range: 0.560191344

Variable Name: 48 TimeBodyGyroscopeJerkStandardDeviationX

Variable Class: numeric

num [1:180] -0.28 0.086 -0.298 -0.934 -0.978...

range: -0.987224804307692

range: 0.687124163703704

Variable Name: 49 TimeBodyGyroscopeJerkStandardDeviationY

Variable Class: numeric

num [1:180] -0.1705 -0.4799 -0.0277 -0.9866 -0.9946...

range: -0.994630797358491

range: 0.474317256051282

Variable Name: 50 TimeBodyGyroscopeJerkStandardDeviationZ

Variable Class: numeric

num [1:180] -0.0352 -0.4134 -0.1287 -0.9816 -0.9854...

range: -0.989398823913043

range: 0.276716853307692

Variable Name: 51 TimeBodyAccelerationMagStandardDeviation

Variable Class: numeric

num [1:180] -0.469 -0.685 -0.288 -0.986 -0.991...

range: -0.992018447826087

range: 0.157775692377778

Variable Name: 52 TimeGraviTimeyAccelerationMagStandardDeviation

Variable Class: numeric

num [1:180] -0.1336 -0.4619 -0.0863 -0.9875 -0.9951...

range: -0.995073759245283

range: 0.476803887476923

Variable Name: 53 TimeBodyAccelerationJerkMagStandardDeviation

Variable Class: numeric

num [1:180] 0.107 -0.382 -0.135 -0.983 -0.987...

range: -0.990468082753623

range: 0.349771285415897

Variable Name: 54 TimeBodyGyroscopeMagStandardDeviation

Variable Class: numeric

num [1:180] -0.535 -0.726 -0.402 -0.988 -0.992...

range: -0.993107759855072
range: -0.00623647528983051

Variable Name: 55 TimeBodyGyroscopeJerkMagStandardDeviation
Variable Class: numeric
num [1:180] -0.339 -0.493 -0.352 -0.976 -0.986...

range: -0.99312260884058
range: 0.474962448333333

Variable Name: 56 FFTBodyAccelerationStandardDeviationX
Variable Class: numeric
num [1:180] -0.1031 -0.3195 -0.0557 -0.9758 -0.989...

range: -0.994025488297872
range: 0.328817010088889

Variable Name: 57 FFTBodyAccelerationStandardDeviationY
Variable Class: numeric
num [1:180] -0.2559 -0.4536 -0.0319 -0.9513 -0.9808...

range: -0.985957788
range: 0.492414379822222

Variable Name: 58 FFTBodyAccelerationStandardDeviationZ
Variable Class: numeric
num [1:180] -0.517 -0.566 -0.495 -0.978 -0.987...

range: -0.994652185217391
range: 0.196613286661538

Variable Name: 59 FFTBodyAccelerationJerkStandardDeviationX
Variable Class: numeric
num [1:180] -0.0335 0.1515 -0.1814 -0.9623 -0.9871...

range: -0.994353086595745
range: 0.646233637037037

Variable Name: 60 FFTBodyAccelerationJerkStandardDeviationY
Variable Class: numeric
num [1:180] -0.437 -0.572 -0.238 -0.944 -0.982...

range: -0.986725274871795
range: 0.522454216314815

Variable Name: 61 FFTBodyAccelerationJerkStandardDeviationZ
Variable Class: numeric
num [1:180] -0.1286 -0.3524 0.0966 -0.9478 -0.9854...

range: -0.986800645362319
range: 0.586637550769231

Variable Name: 62 FFTBodyGyroscopeStandardDeviationX
Variable Class: numeric
num [1:180] -0.398 -0.416 -0.187 -0.928 -0.982...

range: -0.987648484461539
range: 0.178684580868889

Variable Name: 63 FFTBodyGyroscopeStandardDeviationY
Variable Class: numeric
num [1:180] -0.0571 -0.4427 0.0262 -0.9853 -0.9925...

range: -0.993998275797101
range: 0.538404846128205

Variable Name: 64 FFTBodyGyroscopeStandardDeviationZ
Variable Class: numeric
num [1:180] -0.103 -0.533 -0.104 -0.982 -0.993...

range: -0.994366667681159
range: 0.316346415348718

Variable Name: 65 FFTBodyAccelerationMagStandardDeviation
Variable Class: numeric
num [1:180] -0.199 -0.326 -0.186 -0.958 -0.985...

range: -0.986535242105263
range: 0.203979764835897

Variable Name: 66 FFTBodyBodyAccelerationJerkMagStandardDeviation
Variable Class: numeric
num [1:180] -0.321 -0.183 -0.398 -0.932 -0.978...

range: -0.981468841692308
range: 0.236659662496296

Variable Name: 67 FFTBodyBodyGyroscopeMagStandardDeviation
Variable Class: numeric
num [1:180] -0.319 -0.635 -0.282 -0.99 -0.995...

range: -0.997617389275362
range: 0.146618569064407

Variable Name: 68 FFTBodyBodyGyroscopeJerkMagStandardDeviation
Variable Class: numeric
num [1:180] -0.382 -0.694 -0.392 -0.987 -0.995...

range: -0.99758523057971
range: 0.287834616098305