Code Book

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VARIABLES

Following are the variables used in the script run_analysis.R for the purpose of creating tidy data set for the Samsung Phone sensor data.

1. vardata : reads variable names from feature.txt
2. variables : contains separated variable names from vardata
3. act_label : reads activity labels from activity_labels.txt
4. actlabels : contains separated variable names from act_label
5. xtest1 : reads test data from X_test.txt file
6. subjecttest : subject data for test entries
7. ytest : activity data for test entries
8. xtraining : reads training data from X_training.txt file
9. subjecttraining : subject data for training entries
10. ytrain :activity data for training entires
11. testdata : collated test data with activity, subject and observations
12. traindata : collated training data with activity, subject and observations
13. fulldata : combined test and training data
14. mean_index : the indices of columns where mean variables exist
15. mean_data : the mean values for measurements
16. std_index : the indices of columns where standard deviation variables exist
17. std_index : the standard deviation values for measurements
18. fulldata2 : contains combined data of mean and standard deviation
19. ans : final tidy data set

Variable in the tidy.txt are -

```
ans <- read.table("tidydata.txt", header =  TRUE)
names(ans)
```

```
##  [1] "activity_name"                  "participant_number"
##  [3] "tBodyAcc.mean...X"              "tBodyGyro.mean...X"
##  [5] "tBodyGyro.mean...Y"             "tBodyGyro.mean...Z"
##  [7] "tBodyGyroJerk.mean...X"         "tBodyGyroJerk.mean...Y"
##  [9] "tBodyGyroJerk.mean...Z"         "tBodyAcc.mean...Y"
## [11] "tBodyAccMag.mean.."             "tGravityAccMag.mean.."
## [13] "tBodyAccJerkMag.mean.."         "tBodyGyroMag.mean.."
## [15] "tBodyGyroJerkMag.mean.."        "fBodyAcc.mean...X"
## [17] "fBodyAcc.mean...Y"              "fBodyAcc.mean...Z"
## [19] "fBodyAcc.meanFreq...X"          "fBodyAcc.meanFreq...Y"
## [21] "fBodyAcc.meanFreq...Z"          "tBodyAcc.mean...Z"
## [23] "fBodyAccJerk.mean...X"          "fBodyAccJerk.mean...Y"
## [25] "fBodyAccJerk.mean...Z"          "fBodyAccJerk.meanFreq...X"
## [27] "fBodyAccJerk.meanFreq...Y"      "fBodyAccJerk.meanFreq...Z"
```

```
## [29] "tGravityAcc.mean...X"            "tGravityAcc.mean...Y"
## [31] "fBodyGyro.mean...X"              "fBodyGyro.mean...Y"
## [33] "fBodyGyro.mean...Z"              "tGravityAcc.mean...Z"
## [35] "fBodyGyro.meanFreq...X"          "fBodyGyro.meanFreq...Y"
## [37] "fBodyGyro.meanFreq...Z"          "fBodyAccMag.mean.."
## [39] "fBodyAccMag.meanFreq.."          "fBodyBodyAccJerkMag.mean.."
## [41] "fBodyBodyAccJerkMag.meanFreq.."  "fBodyBodyGyroMag.mean.."
## [43] "fBodyBodyGyroMag.meanFreq.."     "fBodyBodyGyroJerkMag.mean.."
## [45] "fBodyBodyGyroJerkMag.meanFreq.." "tBodyAccJerk.mean...X"
## [47] "tBodyAccJerk.mean...Y"           "tBodyAccJerk.mean...Z"
## [49] "tBodyGyro.std...X"               "tBodyGyro.std...Y"
## [51] "tBodyGyro.std...Z"               "tBodyGyroJerk.std...X"
## [53] "tBodyGyroJerk.std...Y"           "tBodyGyroJerk.std...Z"
## [55] "tBodyAccMag.std.."               "tGravityAccMag.std.."
## [57] "tBodyAccJerkMag.std.."           "tBodyGyroMag.std.."
## [59] "tBodyGyroJerkMag.std.."          "fBodyAcc.std...X"
## [61] "fBodyAcc.std...Y"                "fBodyAcc.std...Z"
## [63] "fBodyAccJerk.std...X"            "fBodyAccJerk.std...Y"
## [65] "fBodyAccJerk.std...Z"            "tBodyAcc.std...X"
## [67] "fBodyGyro.std...X"               "fBodyGyro.std...Y"
## [69] "fBodyGyro.std...Z"               "tGravityAcc.std...X"
## [71] "tGravityAcc.std...Y"             "tGravityAcc.std...Z"
## [73] "tBodyAcc.std...Y"                "fBodyAccMag.std.."
## [75] "fBodyBodyAccJerkMag.std.."       "fBodyBodyGyroMag.std.."
## [77] "fBodyBodyGyroJerkMag.std.."      "tBodyAcc.std...Z"
## [79] "tBodyAccJerk.std...X"            "tBodyAccJerk.std...Y"
## [81] "tBodyAccJerk.std...Z"
```