DATA DICTIONARY - SAMSUNG S2

Features

Content: Shows information about the variables used on the feature vector.

Record Type

Feature Id

Feature Name

Below, I show a sample of the first 50 records

1	tBodyAcc- mean()-X	11	tBodyAcc- max()-Y	21	tBodyAcc- iqr()-Y	31	tBodyAcc- arCoeff()-Y,2	41	tGravityAcc- mean()-X
2	tBodyAcc- mean()-Y	12	tBodyAcc- max()-Z	22	tBodyAcc- iqr()-Z	32	tBodyAcc- arCoeff()-Y,3	42	tGravityAcc- mean()-Y
3	tBodyAcc- mean()-Z	13	tBodyAcc- min()-X	23	tBodyAcc- entropy()-X	33	tBodyAcc- arCoeff()-Y,4	43	tGravityAcc- mean()-Z
4	tBodyAcc- std()-X	14	tBodyAcc- min()-Y	24	tBodyAcc- entropy()-Y	34	tBodyAcc- arCoeff()-Z,1	44	tGravityAcc- std()-X
5	tBodyAcc- std()-Y	15	tBodyAcc- min()-Z	25	tBodyAcc- entropy()-Z	35	tBodyAcc- arCoeff()-Z,2	45	tGravityAcc- std()-Y
6	tBodyAcc- std()-Z	16	tBodyAcc- sma()	26	tBodyAcc- arCoeff()-X,1	36	tBodyAcc- arCoeff()-Z,3	46	tGravityAcc- std()-Z
7	tBodyAcc- mad()-X	17	tBodyAcc- energy()-X	27	tBodyAcc- arCoeff()-X,2	37	tBodyAcc- arCoeff()-Z,4	47	tGravityAcc- mad()-X
8	tBodyAcc- mad()-Y	18	tBodyAcc- energy()-Y	28	tBodyAcc- arCoeff()-X,3	38	tBodyAcc- correlation()- X,Y	48	tGravityAcc- mad()-Y
9	tBodyAcc- mad()-Z	19	tBodyAcc- energy()-Z	29	tBodyAcc- arCoeff()-X,4	39	tBodyAcc- correlation()- X,Z	49	tGravityAcc- mad()-Z
10	tBodyAcc- max()-X	20	tBodyAcc- iqr()-X	30	tBodyAcc- arCoeff()-Y,1	40	tBodyAcc- correlation()- Y,Z	50	tGravityAcc- max()-X

activity_labels

Content: Shows information about the 6 activities performed in the test.

Record Type

Activity Id

Activity Name

1	WALKING			
2	WALKING_UPSTAIRS			
3	WALKING_DOWNSTAIRS			
4	SITTING			
5	STANDING			
6	LAYING			

X_test, X_train

Content: Shows information about the activity measurements taken by the people who performed the test (9 people) and by the ones who performed the train (21 people).

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"tBodyAcc-mean()-X"
"tBodyAcc-mean()-Z"
"tBodyAcc-std()-Y"
"tBodyAcc-mad()-X"
"tBodyAcc-mad()-Z"
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"tBodyAcc-min()-X"
"tBodyAcc-min()-Z"
"tBodyAcc-energy()-Z"
"tBodyAcc-energy()-Z"
"tBodyAcc-entropy()-Z"
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"tBodyAcc-arCoeff()-X,4"
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"tBodyAcc-std()-X"
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"tBodyAcc-mad()-Y"
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"tBodyAcc-energy()-Y"
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"tBodyAcc-iqr()-Z"
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"fBodyAccJerk-maxInds-Z"
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377<sup>-</sup>
 379<sup>-</sup>
                        "fBodyAccJerk-bandsEnergy()-9,16"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-57,64"
"fBodyAccJerk-bandsEnergy()-57,64"
"fBodyAccJerk-bandsEnergy()-17,32"
"fBodyAccJerk-bandsEnergy()-49,64"
"fBodyAccJerk-bandsEnergy()-25,48"
"fBodyAccJerk-bandsEnergy()-9,16"
"fBodyAccJerk-bandsEnergy()-75,32"
"fBodyAccJerk-bandsEnergy()-57,64"
"fBodyAccJerk-bandsEnergy()-57,64"
"fBodyAccJerk-bandsEnergy()-17,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-25,32"
"fBodyAccJerk-bandsEnergy()-57,64"
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415]
                          "fBodyAccJerk-bandsEnergy()-57,64"
"fBodyAccJerk-bandsEnergy()-17,32"
"fBodyAccJerk-bandsEnergy()-49,64"
                                                                                                                                                                                                                                            "fBodyAccJerk-bandsEnergy()-1,24"
                                                                                                                                                                                                                                          "fBodyGyro-mean()-X"
"fBodyGyro-mean()-Z"
"fBodyGyro-std()-Y"
                           "fBodyAccJerk-bandsEnergy()-25,48"
                          "fBodyGyro-mean()-Y
"fBodyGyro-std()-X"
                                                                                                                                                                                                                                         "fBodyGyro-mean()-2"

"fBodyGyro-mad()-X"

"fBodyGyro-mad()-Z"

"fBodyGyro-max()-Y"

"fBodyGyro-min()-X"

"fBodyGyro-min()-Z"

"fBodyGyro-energy()-Z"

"fBodyGyro-energy()-Z"

"fBodyGyro-entropy()-Z"

"fBodyGyro-maxInds-Y"

"fBodyGyro-meanFreq()-X"

"fBodyGyro-meanFreq()-Z"

"fBodyGyro-kurtosis()-X"

"fBodyGyro-kurtosis()-Y"

"fBodyGyro-bandsEnergy()-9,16"

"fBodyGyro-bandsEnergy()-21,48"
                        "fBodyGyro-std()-x"
"fBodyGyro-std()-x"
"fBodyGyro-mad()-Y"
"fBodyGyro-max()-X"
"fBodyGyro-max()-Z"
"fBodyGyro-min()-Y"
"fBodyGyro-sma()"
"fBodyGyro-iqr()-X"
"fBodyGyro-iqr()-Z"
"fBodyGyro-entropy()-Y"
"fBodyGyro-maxInds-X"
"fBodyGyro-maxInds-Z"
"fBodyGyro-meanFreq()-Y"
"fBodyGyro-skewness()-X"
"fBodyGyro-skewness()-X"
"fBodyGyro-skewness()-Z"
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435]
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443]
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457
                            "fBodyGyro-skewness()-Z"
459]
                          "fBodyGyro-bandsEnergy()-1,8"
"fBodyGyro-bandsEnergy()-17,24"
461
463
                          "fBodyGyro-bandsEnergy()-33,40"
                                                                                                                                                                                                                                            "fBodyGyro-bandsEnergy()-41,48"
```

```
"fBodyGyro-bandsEnergy()-49,56"
"fBodyGyro-bandsEnergy()-1,16"
"fBodyGyro-bandsEnergy()-33,48"
"fBodyGyro-bandsEnergy()-1,24"
"fBodyGyro-bandsEnergy()-1,24"
"fBodyGyro-bandsEnergy()-17,24"
"fBodyGyro-bandsEnergy()-33,40"
"fBodyGyro-bandsEnergy()-49,56"
"fBodyGyro-bandsEnergy()-1,16"
"fBodyGyro-bandsEnergy()-1,24"
"fBodyGyro-bandsEnergy()-1,24"
"fBodyGyro-bandsEnergy()-1,24"
"fBodyGyro-bandsEnergy()-1,6"
"fBodyGyro-bandsEnergy()-33,40"
"fBodyGyro-bandsEnergy()-49,56"
"fBodyGyro-bandsEnergy()-49,56"
"fBodyGyro-bandsEnergy()-33,48"
"fBodyGyro-bandsEnergy()-33,48"
"fBodyGyro-bandsEnergy()-1,24"
                                                                                                                        "fBodyGyro-bandsEnergy()-57,64"
"fBodyGyro-bandsEnergy()-17,32"
"fBodyGyro-bandsEnergy()-49,64"
 469
  471
                                                                                                                        "fBodyGyro-bandsEnergy()-25,48"
"fBodyGyro-bandsEnergy()-9,16"
"fBodyGyro-bandsEnergy()-25,32"
 473]
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                                                                                                                        "fBodyGyro-bandsEnergy()-25,32"
"fBodyGyro-bandsEnergy()-41,48"
"fBodyGyro-bandsEnergy()-57,64"
"fBodyGyro-bandsEnergy()-17,32"
"fBodyGyro-bandsEnergy()-25,48"
"fBodyGyro-bandsEnergy()-9,16"
"fBodyGyro-bandsEnergy()-25,32"
  479
 483
  485]
  487
  489
                                                                                                                        "fBodyGyro-bandsEnergy()-9,16"
"fBodyGyro-bandsEnergy()-25,32"
"fBodyGyro-bandsEnergy()-41,48"
"fBodyGyro-bandsEnergy()-57,64"
"fBodyGyro-bandsEnergy()-17,32"
"fBodyGyro-bandsEnergy()-49,64"
"fBodyGyro-bandsEnergy()-25,48"
 491
  493
 495]
  497
  499
               "fBodyGyro-bandsEnergy()-1,24"
  501]
                                                                                                                        "fBodyAccMag-std()"
"fBodyAccMag-max()"
               "fBodyAccMag-mean()
               "fBodyAccMag-mad()
  505
               "fBodyAccMag-min()"
                                                                                                                        "fBodyAccMag-sma()"
  507
                                                                                                                         "fBodyAccMag-iqr()'
               "fBodyAccMag-energy()
  509]
               "fBodyAccMag-entropy()"
                                                                                                                         "fBodyAccMag-maxInds"
                                                                                                                         "fBodyAccMag-skewness()"
               "fBodyAccMag-meanFreq()"
               "fBodyAccMag-kurtosis()"
                                                                                                                        "fBodyBodyAccJerkMag-mean()"
               "fBodyBodyAccJerkMag-std()
                                                                                                                         "fBodyBodyAccJerkMag-mad()
              "fBodyBodyAccJerkMag-max()"
                                                                                                                        "fBodyBodyAccJerkMag-min()"
                                                                                                                        "fBodyBodyAccJerkMag-energy()"
"fBodyBodyAccJerkMag-entropy()"
"fBodyBodyAccJerkMag-meanFreq()"
"fBodyBodyAccJerkMag-kurtosis()"
              "fBodyBodyAccJerkMag-sma()"
"fBodyBodyAccJerkMag-iqr()"
               "fBodyBodyAccJerkMag-maxInds"
               "fBodyBodyAccJerkMag-skewness()"
              "fBodyBodyGyroMag-mean()"
"fBodyBodyGyroMag-mad()"
                                                                                                                        "fBodyBodyGyroMag-std()"
"fBodyBodyGyroMag-max()"
 529]
531]
              "fBodyBodyGyroMag-min()"
"fBodyBodyGyroMag-energy()"
"fBodyBodyGyroMag-entropy()"
"fBodyBodyGyroMag-meanFreq()"
"fBodyBodyGyroMag-weanFreq()"
                                                                                                                        "fBodyBodyGyroMag-sma()"
"fBodyBodyGyroMag-iqr()"
"fBodyBodyGyroMag-maxInds"
  533
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 539]
                                                                                                                        "fBodyBodyGyroMag-skewness()
"fBodyBodyGyroJerkMag-mean()
"fBodyBodyGyroJerkMag-mad()"
             "fBodyBodyGyroMag-meanFreq()"
"fBodyBodyGyroMag-kurtosis()"
"fBodyBodyGyroJerkMag-std()"
"fBodyBodyGyroJerkMag-max()"
"fBodyBodyGyroJerkMag-sma()"
"fBodyBodyGyroJerkMag-iqr()"
"fBodyBodyGyroJerkMag-skewness()"
"anole(tBodyAccMean,aravity)"
  541
  543]
                                                                                                                        "fBodyBodyGyroJerkMag-min()"
"fBodyBodyGyroJerkMag-energy()"
"fBodyBodyGyroJerkMag-entropy()"
"fBodyBodyGyroJerkMag-meanFreq()
"fBodyBodyGyroJerkMag-kurtosis()
 545]
547]
  549]
 551]
553]
                                                                                                                        "angle(tBodyAccJerkMean),gravityMean)"
"angle(tBodyGyroJerkMean,gravityMean)"
               "angle(tBodyAccMean,gravity)
              "angle(tBodyGyroMean,gravityMean)"
"angle(X,gravityMean)"
 559]
                                                                                                                         "angle(Y,gravityMean)
[561] "angle(Z,gravityMean)"
```

y_test, y_train

Content: Shows information about the activity (id) performed by the people who performed the test (9 people) and by the ones who performed the train (21 people).

Record Type

V1 – activity id (below a sample of the file content)

```
1 5
2 5
3 5
4 5
5 5
6 5
7 5
8 5
9 5
```

subject_test, subject_train

Content: Each row identifies the subject who performed the activity for each window sample.

Record Type

```
V1 - Person Id (below a sample of the file content)
2917 24
2918 24
2919 24
2920 24
2921 24
2922 24
2923 24
2924 24
2925 24
2925 24
2926 24
2927 24
```

X_data (this file is X_train and X_test merged)

Content: Shows information about the activity measurements taken by the people who performed the test (9 people) and by the ones who performed the train (21 people).

Record Type (same record Type as X train and X test)

y_data (this file is y_train and y_test merged)

Content: Shows information about the activity (id) performed by the people who performed the test (9 people) and by the ones who performed the train (21 people).

Record Type

Activity.Id

subject_data (this file is subject_train and subject_test merged)

Content: Each row identifies the subject who performed the activity for each window sample.

Record Type

Subject_id

X_data_mean_std

Content: Shows information about the activity means and standard deviation measurements taken by the people who performed the test (9 people) and by the ones who performed the train (21 people).

```
[1] "tBodyAcc-mean()-X"
[3] "tBodyAcc-mean()-Z"
[5] "tGravityAcc-mean()-Y"
[7] "tBodyAccJerk-mean()-Z"
[7] "tBodyAccJerk-mean()-Z"
[7] "tBodyAccJerk-mean()-Z"
[7] "tBodyGyroJerk-mean()-Z"
[7] "tBodyGyroJerk-mean()-Z"
[7] "tBodyGyroJerk-mean()-X"
[7] "tBodyGyroJerk-mean()-Z"
[7] "tGravityAccMag-mean()
[7] "tBodyGyroJerk-mean()-Z"
[7] "tGravityAccMag-mean()
[7] "tBodyGyroJerk-mean()-Z"
[7] "tGravityAccMag-mean()
[7] "tBodyGyroJerk-mean()-Z"
[7] "fBodyAcc-mean()-Z"
[7] "fBodyAcc-mean()-Z"
[7] "fBodyAccJerk-mean()-Z"
[7] "fBodyAccJerk-mean()-Z"
[7] "fBodyAccJerk-mean()-Z"
[7] "fBodyAccJerk-mean()-Z"
[7] "fBodyGyro-mean()-Z"
[7] "fBodyGyro-meanfreq()-Z"
[7] "fBo
```

```
[47] "tBodyAcc-std()-X" "tBodyAcc-std()-Y" "GravityAcc-std()-X" "tGravityAcc-std()-X" "tGravityAcc-std()-X" "tGravityAcc-std()-X" "tBodyAccJerk-std()-X" "tBodyAccJerk-std()-X" "tBodyAccJerk-std()-X" "tBodyGyro-std()-X" "tBodyGyro-std()-Z" "tBodyGyro-std()-Z" "tBodyGyro-std()-Z" "tBodyGyro-std()-Z" "tBodyGyro-std()-Z" "tBodyGyro-std()-Z" "tBodyGyro-std()-X" "tBodyGyro-std()-X" "tBodyGyro-std()-X" "tBodyGyro-std()-X" "tBodyGyro-std()-X" "tBodyGyro-std()-X" "tBodyAccJerkMag-std()" "tBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccJerk-std()-X" "fBodyAccMag-std()" "fBodyBodyGyroJerkMag-std()" "fBodyBodyGyroJerkMag-std()" "fBodyBodyGyroMag-std()"
```

activity_names

Content: Shows information about the activity means and standard deviation measurements taken by the people who performed the test (9 people) and by the ones who performed the train (21 people). In this 2 columns are added at the beginning to identify the activity id and activity name

```
[1] "Activity.Id" [3] "subject_id"
                                                                                                            "Activity.Name"
                                                                                                                'tBodyAcc-mean()-X'
             "tBodyAcc-mean()-Y"
"tGravityAcc-mean()-X"
                                                                                                              "tBodyAcc-mean()-Z"
"tGravityAcc-mean()-Y"
              "tGravityAcc-mean()-Z"
                                                                                                              "tBodyAccJerk-mean()-X'
            "tBodyAccJerk-mean()-Y"
"tBodyGyro-mean()-X"
                                                                                                              "tBodyAccJerk-mean()-Z"
"tBodyGyro-mean()-Y"
                                                                                                              "tBodyGyroJerk-mean()-X'
"tBodyGyroJerk-mean()-Z'
"tGravityAccMag-mean()"
             "tBodyGyro-mean()-Z"
            "tBodyAccMag-mean()-Y"
"tBodyAccMag-mean()"
"tBodyAccJerkMag-mean()"
                                                                                                              "tBodyGyroMag-mean()
"fBodyAcc-mean()-X"
"fBodyAcc-mean()-Z"
            "tBodyGyroJerkMag-mean()"
"fBodyAcc-mean()-Y"
            "fBodyAcc-meanFreq()-X"
"fBodyAcc-meanFreq()-Z"
"fBodyAccJerk-mean()-Y"
                                                                                                              "fBodyAcc-meanFreq()-Y"
"fBodyAccJerk-mean()-X"
"fBodyAccJerk-mean()-Z"
"fBodyAccJerk-mean()-Z"
            "fBodyAccJerk-meanFreq()-X"
"fBodyAccJerk-meanFreq()-Z"
                                                                                                              "fBodyAccJerk-meanFreq()-Y"
"fBodyGyro-mean()-X"
"fBodyGyro-mean()-Z"
           "fBodyAccJerk-meanFreq()-Z"
"fBodyGyro-mean()-Y"
"fBodyGyro-meanFreq()-X"
"fBodyGyro-meanFreq()-Z"
"fBodyBodyAccJerkMag-meanFreq()"
"fBodyBodyAccJerkMag-meanFreq()"
"fBodyBodyGyroJerkMag-meanFreq()"
"fBodyBodyGyroJerkMag-meanFreq()"
"tBodyAcc-std()-Y"
"tGravityAcc-std()-X"
"tGravityAcc-std()-Z"
"tBodyAccJerk-std()-Y"
"tBodyAccJerk-std()-Y"
                                                                                                              "fBodyGyro-meanFreq()-Y"
"fBodyAccMag-mean()"
"fBodyBodyAccJerkMag-mean()"
                                                                                                              "fBodyBodyGyroMag-mean()"
"fBodyBodyGyroJerkMag-mean()"
                                                                                                             TBODYBODYGYFOJERKMAG-I
"TBODYACC-std()-X"
"tBodyAcc-std()-Z"
"tGravityAcc-std()-Y"
"tBODYACCJerk-std()-X"
"tBODYACCJerk-std()-Z"
"tBODYGYFO-STD()-Y"
             "tBodyGyro-std()-X
            "tBodyGyro-std()-X"
"tBodyGyro-std()-Z"
"tBodyGyroJerk-std()-Y"
"tBodyAccMag-std()"
"tBodyAccJerkMag-std()"
"tBodyAccJerkMag-std()"
"fBodyAccJerk-std()-X"
"fBodyAccJerk-std()-Z"
"fBodyGyro-std()-Z"
                                                                                                              "tBodyGyroJerk-std()-X"
"tBodyGyroJerk-std()-Z"
"tGravityAccMag-std()"
                                                                                                              "tBodyGyroMag-std() -X"
"fBodyAcc-std() -Z"
                                                                                                              "fBodyAccJerk-std()-Y'
"fBodyGyro-std()-Z"
"fBodyGyro-std()-Z"
            "fBodyGyro-std()-Y
            "fBodyAccMag-std()"
"fBodyBodyGyroMag-std()"
                                                                                                              "fBodyBodyAccJerkMag-std()"
"fBodyBodyGyroJerkMag-std()"
```

second_tidy_data

Content: Shows the average of each variable for each activity and each subject.