SummaryDataSet: This data frame summarizes following variables which were data collected from the accelerometers from the Samsung Galaxy S smartphone for advance analysis.

- 1. **Subject:** This numerical variable contains subject information. The valid values are in the range of 1-30.
- 2. **ActivityType:** This categorical variable contains information about activity data. The valid values are as following.

WALKING

WALKING_UPSTAIRS

WALKING DOWNSTAIRS

SITTING

STANDING

LAYING

- 3. All the following variables are of numerical type containing mean, or standard deviation information of the underlying raw data variables.
 - o tBodyAcc-mean()-X
 - tBodyAcc-mean()-Y
 - tBodyAcc-mean()-Z
 - tGravityAcc-mean()-X
 - tGravityAcc-mean()-Y
 - o tGravityAcc-mean()-Z
 - tBodyAccJerk-mean()-X
 - tBodyAccJerk-mean()-Y
 - tBodyAccJerk-mean()-Z
 - tBodyGyro-mean()-X
 - tBodyGyro-mean()-Y
 - o tBodyGyro-mean()-Z
 - o tBodyGyroJerk-mean()-X
 - tBodyGyroJerk-mean()-Y
 - tBodyGyroJerk-mean()-Z
 - tBodyAccMag-mean()
 - tGravityAccMag-mean()
 - tBodyAccJerkMag-mean()
 - tBodyGyroMag-mean()
 - tBodyGyroJerkMag-mean()
 - o fBodyAcc-mean()-X
 - o fBodyAcc-mean()-Y
 - o fBodyAcc-mean()-Z
 - fBodyAcc-meanFreq()-X
 - fBodyAcc-meanFreq()-Y
 - fBodyAcc-meanFreq()-Z

- fBodyAccJerk-mean()-X
- o fBodyAccJerk-mean()-Y
- o fBodyAccJerk-mean()-Z
- o fBodyAccJerk-meanFreq()-X
- o fBodyAccJerk-meanFreq()-Y
- o fBodyAccJerk-meanFreq()-Z
- fBodyGyro-mean()-X
- o fBodyGyro-mean()-Y
- o fBodyGyro-mean()-Z
- o fBodyGyro-meanFreq()-X
- o fBodyGyro-meanFreq()-Y
- o fBodyGyro-meanFreq()-Z
- fBodyAccMag-mean()
- fBodyAccMag-meanFreq()
- fBodyBodyAccJerkMag-mean()
- fBodyBodyAccJerkMag-meanFreq()
- fBodyBodyGyroMag-mean()
- fBodyBodyGyroMag-meanFreq()
- fBodyBodyGyroJerkMag-mean()
- fBodyBodyGyroJerkMag-meanFreq()
- o tBodyAcc-std()-X
- o tBodyAcc-std()-Y
- o tBodyAcc-std()-Z
- o tGravityAcc-std()-X
- o tGravityAcc-std()-Y
- o tGravityAcc-std()-Z
- o tBodyAccJerk-std()-X
- o tBodyAccJerk-std()-Y
- o tBodyAccJerk-std()-Z
- o tBodyGyro-std()-X
- o tBodyGyro-std()-Y
- o tBodyGyro-std()-Z
- tBodyGyroJerk-std()-X
- o tBodyGyroJerk-std()-Y
- o tBodyGyroJerk-std()-Z
- tBodyAccMag-std()
- tGravityAccMag-std()
- tBodyAccJerkMag-std()
- tBodyGyroMag-std()
- tBodyGyroJerkMag-std()

- o fBodyAcc-std()-X
- o fBodyAcc-std()-Y
- o fBodyAcc-std()-Z
- o fBodyAccJerk-std()-X
- o fBodyAccJerk-std()-Y
- o fBodyAccJerk-std()-Z
- o fBodyGyro-std()-X
- o fBodyGyro-std()-Y
- o fBodyGyro-std()-Z
- o fBodyAccMag-std()
- o fBodyBodyAccJerkMag-std()
- o fBodyBodyGyroMag-std()
- fBodyBodyGyroJerkMag-std()