Run\_Analysis.R downloads and performs the data preparation followed by 5 steps as described in course.

1. **Downloading the dataset**
   * Dataset is downloaded and extracted in the folder called UCI Har Dataset.
2. **Assign each data to the variables**
   * features <- features.txt    
     *The features selected for this database come from the accelerometer and gyroscope 3-axial raw signals. It has data of 561 rows and 2 columns.*
   * activities <- activity\_labels.txt    
     *List of activities performed when the corresponding measurements were taken and its codes. It has data of 6 rows and 2 columns.*
   * subject\_test <- test/subject\_test.txt   
     *comprises of test data of volunteer test subjects. It has data of 2947 rows and 1 column.*
   * x\_test <- test/X\_test.txt   
     *comprises of recorded features test data. It has data of 2947 rows and 561 columns.*
   * y\_test <- test/y\_test.txt   
     *comprises of test data of activities ‘code labels. It has data of 2947 rows and 1 column.*
   * subject\_train <- test/subject\_train.txt   
     *comprises of train data of volunteer test subjects. It has data of 7352 rows and 1 column.*
   * x\_train <- test/X\_train.txt   
     *comprises of recorded features train data. It has data of 7352 rows and 561 columns.*
   * y\_train <- test/y\_train.txt    
     *comprises of train data of activities ‘code labels. It has data of 7352 rows and 1 column.*
3. **Merges the training and the test sets to create one data set**
   * X\_Train\_Bind is created by merging the x\_train and x\_test data by using **rbind()** function. *It has data of 10299 rows and 561 columns.*
   * Y\_Train\_Bind is created by merging the y\_train and y\_test data using **rbind()** function. *It has data of 10299 rows and 1 column.*
   * Subject\_Bind is created by merging subject\_train and subject\_test data using **rbind()** function. *It has data of 10299 rows and 1 column.*
   * Data\_Merged is created by merging Subject, Y\_Train\_Bind and X\_Train\_Bind using **cbind()** function. *It has data of 10299 rows and 561 columns.*
4. **Extracts only the measurements on the mean and standard deviation for each measurement**
   * TidyData (10299 rows, 88 columns) created by subsetting Data\_Merged, selecting columns: subject, code and their respective measurements on the mean and *standard deviation* (std)..
5. **Uses descriptive activity names to name the activities in the data set**
   * Entire numbers in code column replaced with their corresponding activity that is taken from second column of the activities variable
6. **Appropriately labels the data set with descriptive variable names**
   * code column renamed to activities
   * Acc replaced by Accelerometer
   * Gyro replaced by Gyroscope
   * BodyBody replaced by Body
   * Mag replaced by Magnitude
   * Words that start with character f replaced by Frequency
   * Words that start with character t replaced by Time
7. **From the data set in step 4, creates a second, independent tidy data set with the average of each variable for each activity and each subject**
   * FinalData (180 rows, 88 columns) is created by summarizing the TidyData taking the means of each variable for every activity and subject, grouped by subject and activity.
   * Export the FinalData into FinalData.txt file.