The `run_analysis.R` script prepares the data and then executes the 5 steps required in the course project's description.

1. **Download the dataset**
   - Dataset downloaded and extracted into a folder named `UCI HAR Dataset`

2. **Assign data frames**
   - `features` <- `features.txt` : 561 rows, 2 columns
     These data come from the accelerometer and gyroscope 3-axial raw signals tAcc-XYZ and tGyro-XYZ
   - `activities` <- `activity_labels.txt` : 6 rows, 2 columns
     List of activities performed when the corresponding measurements were taken (col 2) and its "code" (i.e., label; col1)
   - `subject_test` <- `test/subject_test.txt` : 2947 rows, 1 column
     Contains "test" data for 9 of the 30 volunteer test subjects being observed
   - `x_test` <- `test/X_test.txt` : 2947 rows, 561 columns
     Contains recorded features of "test" data
   - `y_test` <- `test/y_test.txt` : 2947 rows, 1 columns
     Contains "test" data under activities' labels 1 through 6
   - `subject_train` <- `test/subject_train.txt` : 7352 rows, 1 column
     Contains "train" data of 21 of 30 volunteer subjects being observed
   - `x_train` <- `test/X_train.txt` : 7352 rows, 561 columns
     Contains recorded features of "train" data
   - `y_train` <- `test/y_train.txt` : 7352 rows, 1 columns
     Contains "train" data under activities' labels 1 through 6

3. **Merges the "training" and the "test" data sets to create one data set**
   - `X` (10299 rows, 561 columns) is created by merging `x_train` and `x_test` using the **rbind()** function
   - `Y` (10299 rows, 1 column) is created by merging `y_train` and `y_test` using the **rbind()** function
   - `Subject` (10299 rows, 1 column) is created by merging `subject_train` and `subject_test` using the **rbind()** function
   - `Merged_Data` (10299 rows, 563 column) is created by merging `Subject`, `Y` and `X` using the **cbind()** function

4. **Extracts only the measurements on the mean and standard deviation for each measurement**
   - `TidyData` (10299 rows, 88 columns) is created by subsetting `MergedData`, selecting only columns: `subject`, `code` and the measurements on the `mean` and *standard deviation* (`std`) for each measurement

5. **Uses descriptive activity names to name the activities in the data set**

- Entire numbers in `code` column of the `TidyData` replaced with corresponding activity taken from second column of the `activities` variable

6. **Appropriately labels the data set with descriptive variable names**
   - `code` column in `TidyData` renamed `activities`
   - All `Acc` in column's name replaced by `Accelerometer`
   - All `Gyro` in column's name replaced by `Gyroscope`
   - All `BodyBody` in column's name replaced by `Body`
   - All `Mag` in column's name replaced by `Magnitude`
   - All start with character `f` in column's name replaced by `Frequency`
   - All start with character `t` in column's name 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 sumarizing `TidyData` taking the means of each variable for each activity and each subject (after grouping by subject and activity).
   - Export `FinalData` into `FinalData.txt` file.