The `run_analysis.R` script performs the data preparation and then followed by the 5 steps required as described in the course project's definition.

1. **Download the dataset**
    - Dataset downloaded and extracted under the folder called `UCI HAR Dataset`

2. **Assign each data to variables**
    - `features` <- `features.txt` : 561 rows, 2 columns
      The features selected for this database 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 and its codes (labels)
    - `subject_test` <- `test/subject_test.txt` : 2947 rows, 1 column
      contains test data of 9/30 volunteer test subjects being observed
    - `x_test` <- `test/X_test.txt` : 2947 rows, 561 columns
      contains recorded features test data
    - `y_test` <- `test/y_test.txt` : 2947 rows, 1 columns
      contains test data of activities'code labels
    - `subject_train` <- `test/subject_train.txt` : 7352 rows, 1 column
      contains train data of 21/30 volunteer subjects being observed
    - `x_train` <- `test/X_train.txt` : 7352 rows, 561 columns
      contains recorded features train data
    - `y_train` <- `test/y_train.txt` : 7352 rows, 1 columns
      contains train data of activities'code labels

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