## Workflow

'run\_analysis.R' script does the following action sequence:

### 1. Merge the training and the test sets to create one data set.

* Using download.file() together with unzip() function to download the zip file from the website and extraction
* Using read.table() function to load "X\_train.txt", "y\_train", "subject\_train" in train directory and "X\_test", "y\_test", "subject\_test" into R.
* Using rbind() and cbind() functions to merge training and test data sets together.

### 2. Extract only the measurements on the mean and standard deviation for each measurement.

* Using read.table() function to load "features.txt" into R.
* Using grep() function to find the indexes with "mean()" and "sd()".
* Then select all relevant columns using the selected the indexed features name created the previous step.

### 3. Uses descriptive activity names to name the activities in the data set

* Using read.table() function to load "activity\_labels.txt" into R.
* Using factor() function to replace activity number labels with the activity names

### 4. Appropriately labels the data set with descriptive variable names

* Using gsub() function to replace all characters such that all variable names are labelled correctly.

### 5. 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.

* Using ddply() functions in the plyr package to calculate the mean of each variable for each activity and each subject