**Getting and Cleaning Data Project**

**run\_analysis.R**

The cleanup script (run\_analysis.R) does the following:

1. Merges the training and the test sets to create one data set.
2. Extracts only the measurements on the mean and standard deviation for each measurement.
3. Uses descriptive activity names to name the activities in the data set
4. Appropriately labels the data set with descriptive activity names.
5. Creates a second, independent tidy data set with the average of each variable for each activity and each subject.

**Running the script**

To run the script, source run\_analysis.R. Script will do following:

## Load required libraries.

library(plyr)

library(reshape2)

## 1. Prepare data for processing.

## 2. Merge train and test files.

## 3. Remove working files.

## 4. Read data labels for column names

## 5. Clean feature names removing problematic text

## 6. Grep the columns which we want.

## 7. Apply subset to get only mean and standard deviations

## 8. Decode activity label and put result in new activity name column.

## 9. Melt and recast to get clean Data

## 10.Output to current directory

**Cleaned Data**

The resulting clean dataset is in this repository at: data/cleanData.csv.