

README for the Course Project on “Getting and Cleaning Data”

- Introduction:

The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years. Each person performed six activities (WALKING, WALKING_UPSTAIRS, WALKING_DOWNSTAIRS, SITTING, STANDING, LAYING) wearing a smartphone (Samsung Galaxy S II) on the waist. The obtained dataset has been randomly partitioned into two sets, where 70% of the volunteers was selected for generating the training data and 30% the test data.

- Dataset Creation

The R script `run_analysis.R` can be used to create the data set. It retrieves the source data set and performs various functions on it to get a clean tidy dataset.

1. Download and unzip source data
2. Read each individual file as data.
3. Merge the training and the test sets
4. Extract only the measurements on the mean and standard deviation for each measurement.
5. Use descriptive activity names to name the activities in the data set.
6. Appropriately label the data set with descriptive variable names.
7. Create a second, independent tidy set with the average of each variable for each activity and each subject.
8. Write the data set to the `tidy_data.txt` file.