Code book for Getting and Cleaning Data project

Data Source:
Download the data file from the following link:

http://archive.ics.uci.edu/ml/datasets/Human+Activity+Recognition+Using+Smartphones

Variables:
-features: included in the features.txt file. The file captures the accelerometer and gyroscope-3-axial raw signals tAcc-XYZ and tGyro-XYZ.

-activities: included in the activity_labels.txt file. Contains six measurements, Walking, walking_upstairs, walking-downstairs, sitting, standing, laying.

- tbodyacc.mean.x
- tbodyacc.mean.y
- tbodyacc.mean.z
- tbodyacc.std.x
- tbodyacc.std.y
- tbodyacc.std.z
- tgravityacc.mean.x
- tgravityacc.mean.y
- tgravityacc.mean.z
- tgravityacc.std.x
- tgravityacc.std.y
- tgravityacc.std.z
- tbodyaccjerk.mean.x
- tbodyaccjerk.mean.y
- tbodyaccjerk.mean.z
- tbodyaccjerk.std.x
- tbodyaccjerk.std.y
- tbodyaccjerk.std.z
- tbodygyro.mean.x
- tbodygyro.mean.y

- tbodygyro.mean.z
- tbodygyro.std.x
- tbodygyro.std.y
- tbodygyro.std.z
- tbodygyrojerk.mean.x
- tbodygyrojerk.mean.y
- tbodygyrojerk.mean.z
- tbodygyrojerk.std.x
- tbodygyrojerk.std.y
- tbodygyrojerk.std.z
- tbodyaccmag.mean
- tbodyaccmag.std
- tgravityaccmag.mean
- tgravityaccmag.std
- tbodyaccjerkmag.mean
- tbodyaccjerkmag.std
- tbodygyromag.mean
- tbodygyromag.std
- tbodygyrojerkmag.mean
- tbodygyrojerkmag.std
- fbodyacc.mean.x
- fbodyacc.mean.y
- fbodyacc.mean.z
- fbodyacc.std.x
- fbodyacc.std.y
- fbodyacc.std.z
- fbodyaccjerk.mean.x
- fbodyaccjerk.mean.y
- fbodyaccjerk.mean.z
- fbodyaccjerk.std.x
- fbodyaccjerk.std.y
- fbodyaccjerk.std.z
- fbodygyro.mean.x
- fbodygyro.mean.y

- fbodygyro.mean.z
- fbodygyro.std.x
- fbodygyro.std.y
- fbodygyro.std.z
- fbodyaccmag.mean
- fbodyaccmag.std
- fbodybodyaccjerkmag.mean
- fbodybodyaccjerkmag.std
- fbodybodygyromag.mean
- fbodybodygyromag.std
- fbodybodygyrojerkmag.mean
- fbodybodygyrojerkmag.std

Processing the data:
First using the cbind() to merge the train subject and train data, test subject and test data.
Then use the rbind() to merge the train and test data.
Then we use “names”, gsub function to transform all the variables names.
Finally, we are summarizing means of each variable grouped by each activities and subject and write the tidy dataset into a file.