**Code Book:**

This study is about collecting data and analyzing the data for recorded by mobile phone for various forms of activities. The data represents the 30 subjects for 6 kinds of activity. The observation for each activity and subject is repeated and value of mean and standard deviation is recorded. The object of this exercise is to create a tidy data that gives mean per subject and activity for the each collection of the data.

The data is divided into train test sets. The activity and subject is indexed and the index file relating to the activity or subject is a table. In this analysis, the test and train data is combined and the data is subset to only those fields that are either mean or standard deviations. Then a tidy data set is created to summarize the data for each field based on every subject and activity. The tidy data is stored as a text file. The columns are shown below:



Process for creating the data:

1. The test data along activity. Subject and col names were read into R as a data table.
2. The activity was recoded to actual name instead of index number.
3. The col names were added to the main data table.
4. Subset of the main table was generated with Mean and Standard deviation in the field name.
5. New data table was created combining the subject, activity and the subset table.
6. The process was repeated for the train set.
7. The new table from both the test and train was combined using rbind function.
8. New table call finalres was created by summarizing the data using the dplyr library. Group\_by and summerise\_each function was used.
9. The new table was stored as a text file using write.table function.