Reproducible Research: Peer Assessment 1

Loading and preprocessing the data

Extract zipped data, load them in R (function 'read.csv') and check dataframe
structure.

```
myfiles <- unzip(zipfile = "activity.zip", list = T) # read file name

unzip(zipfile = "activity.zip") # unzip the file

mydata <- read.csv(file = myfiles[1,1]) # load the file into R

str(mydata)
```

```
## 'data.frame':    17568 obs. of  3 variables:
##  $ steps   : int  NA NA NA NA NA NA NA NA NA NA ...
##  $ date    : Factor w/ 61 levels "2012-10-01","2012-10-02",..: 1 1 1 1 1 1 1 1 1 1 ...
##  $ interval: int  0 5 10 15 20 25 30 35 40 45 ...
```

It would be better to have Date coded as a date in R format. I create a new variable

What is mean total number of steps taken per day?

What is the average daily activity pattern?

Imputing missing values

Are there differences in activity patterns between weekdays and weekends?