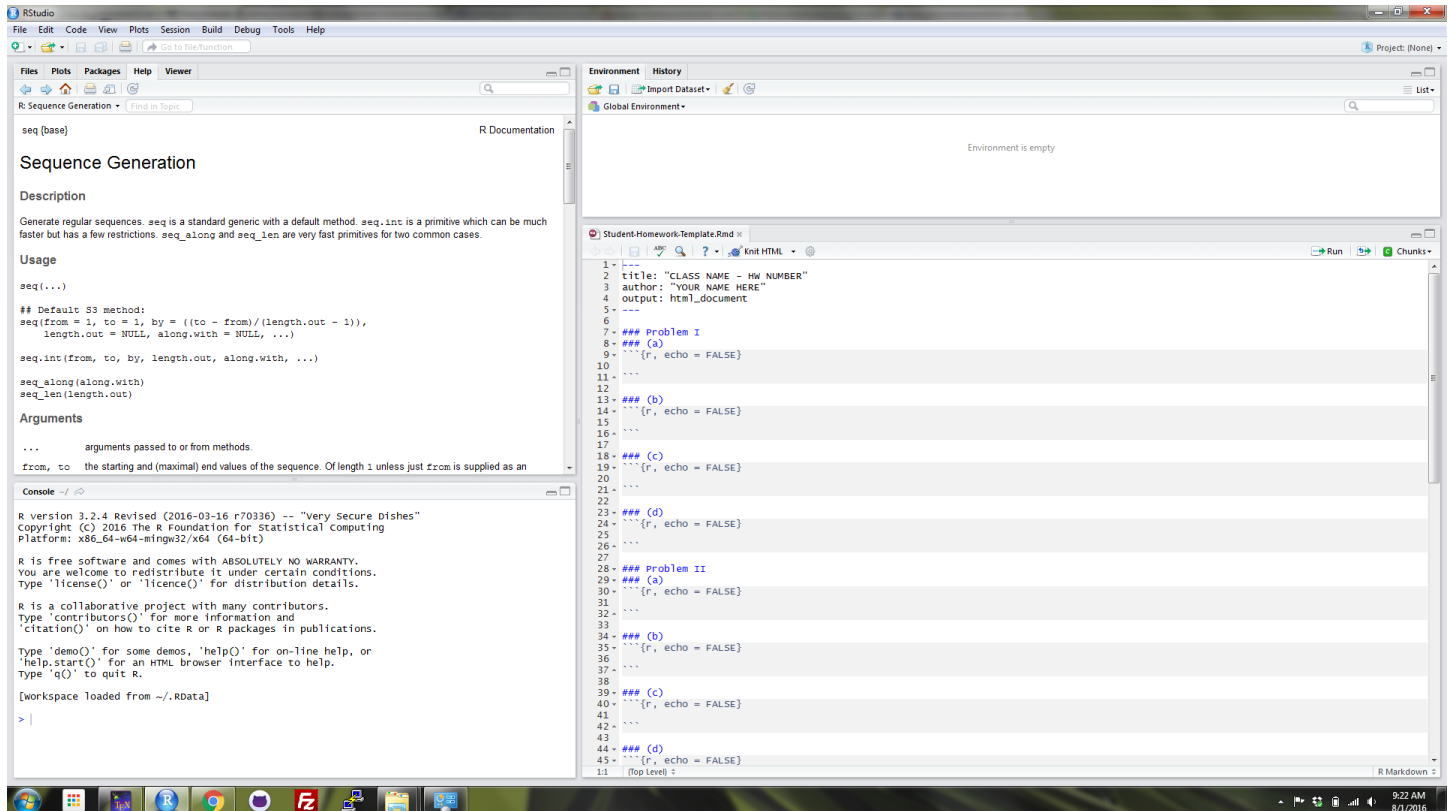# R Handout: Loading a Dataset and Knitting

1 Loading a Dataset

Once you have installed R and R-studio, download the file "`Student-Homework-Template.Rmd`" from the class website. Double click on that file, and you should get a similar window to below (assuming you have reordered your windows to match mine):


Then, you may click "Tools" ... "Import Dataset" ... "From Text File..." and browse to the directory where you downloaded the .csv or .txt dataset, select it, and select "Import". I'll assume the name of your data is `ErinsFitbit.csv`.

Your screen should now look like this (the data may of course change):
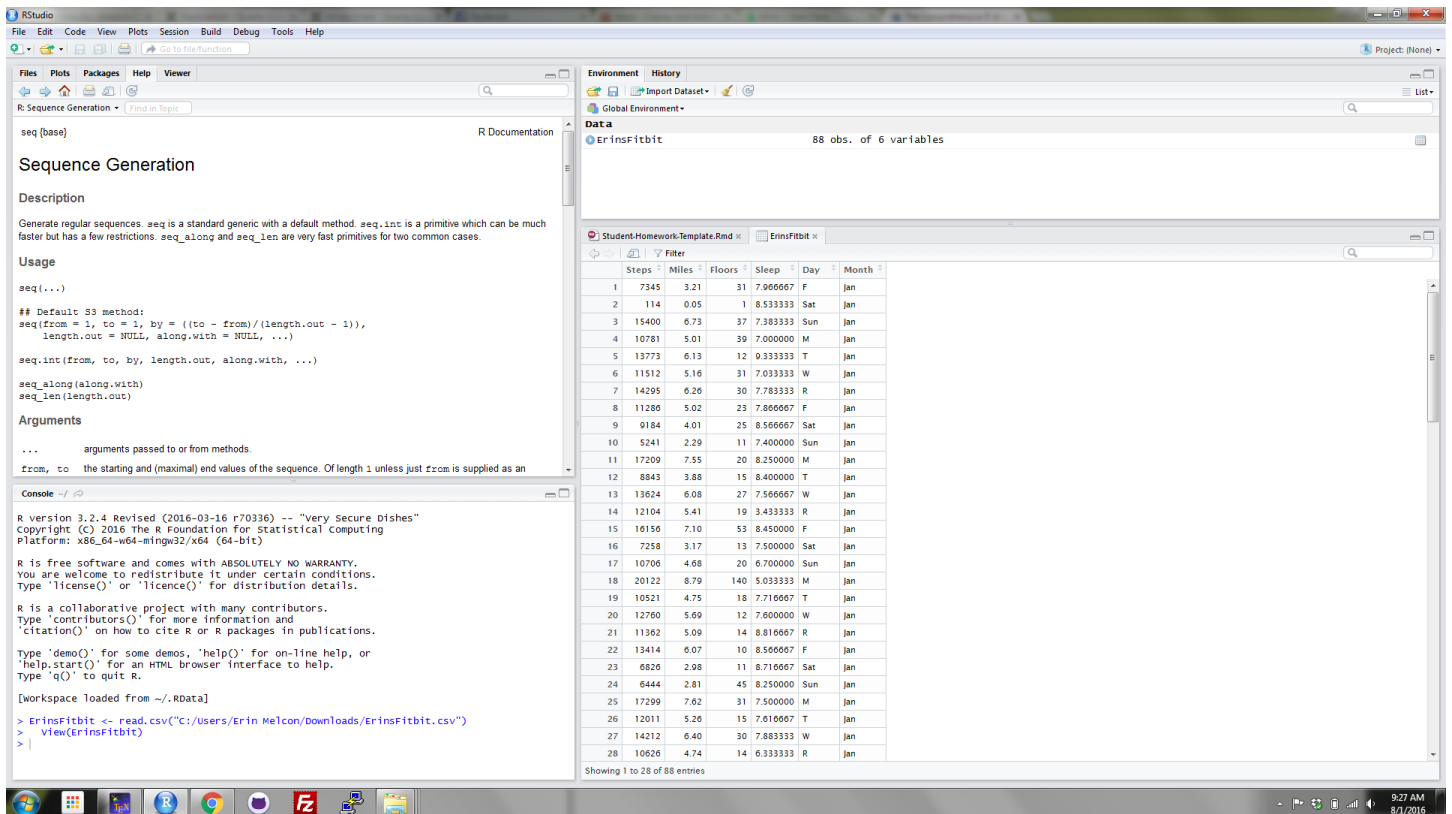
Notice this opened a tab that says "ErinsFitbit", or in general the name of your dataset. This simply displays the format of the data, so we may go ahead and close that by pressing the "**x**" button next to the name. Now your window should look like this:
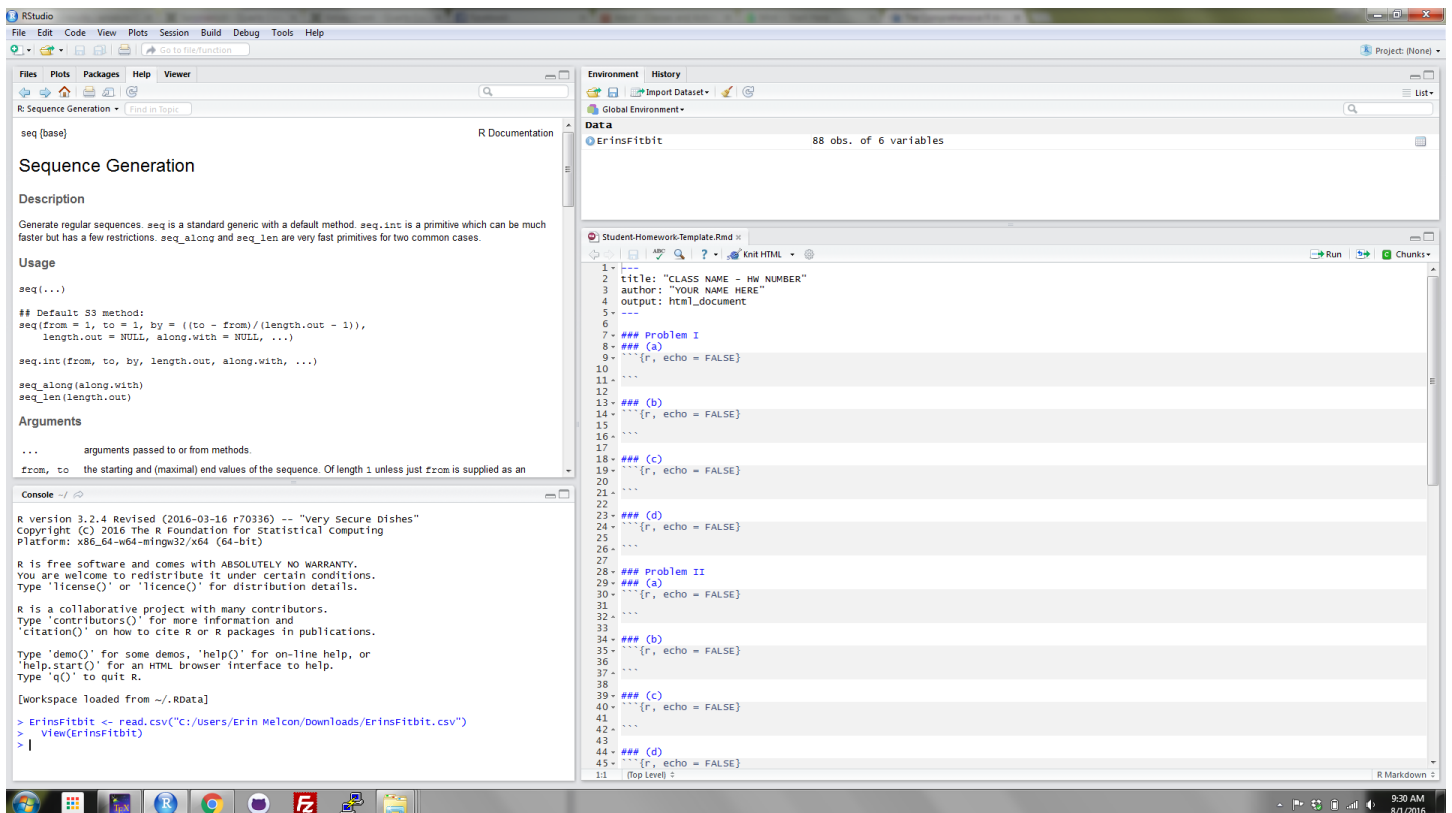
The most important thing about loading the data into the .Rmd file is the next step. You copy the command that is now in your console to the .Rmd file, like so:
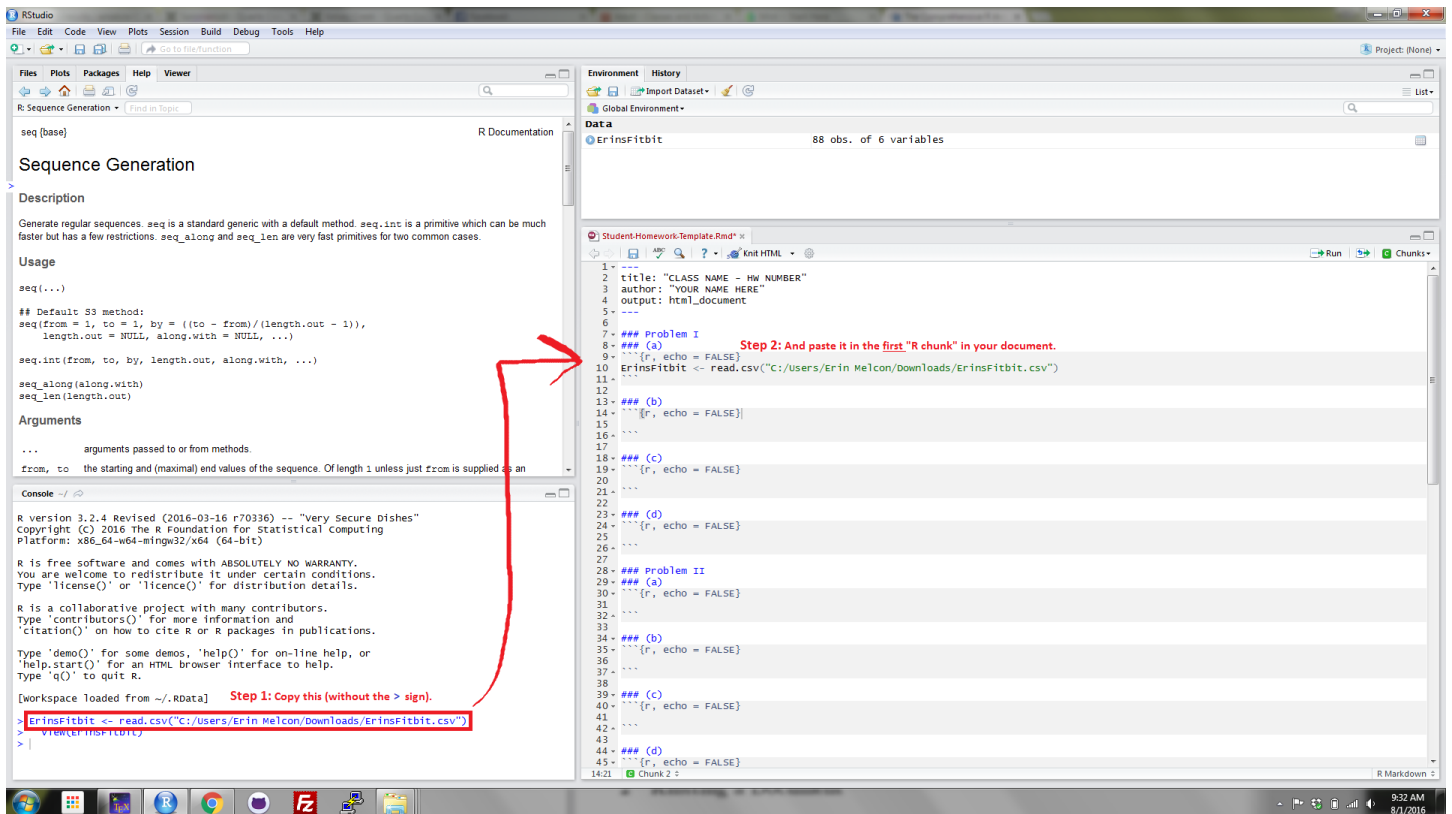
Now, the first thing that your .Rmd file will do is **load the data**. Then we can manipulate the data within R, and knit to a .html.

2 Knitting a Document

To demonstrate how to knit a document, I first need code that will produce output. I will use the `summary` command on the dataset, and save the mean of the first column and display it for this example.

In the first R code chunk, I can simply write the code to use the function `summary` on the dataset.
In the next code chunk, I am going to save the value of the mean of the column named "Steps" as `first.mean`, and then display it both in an R window and using in-line coding:
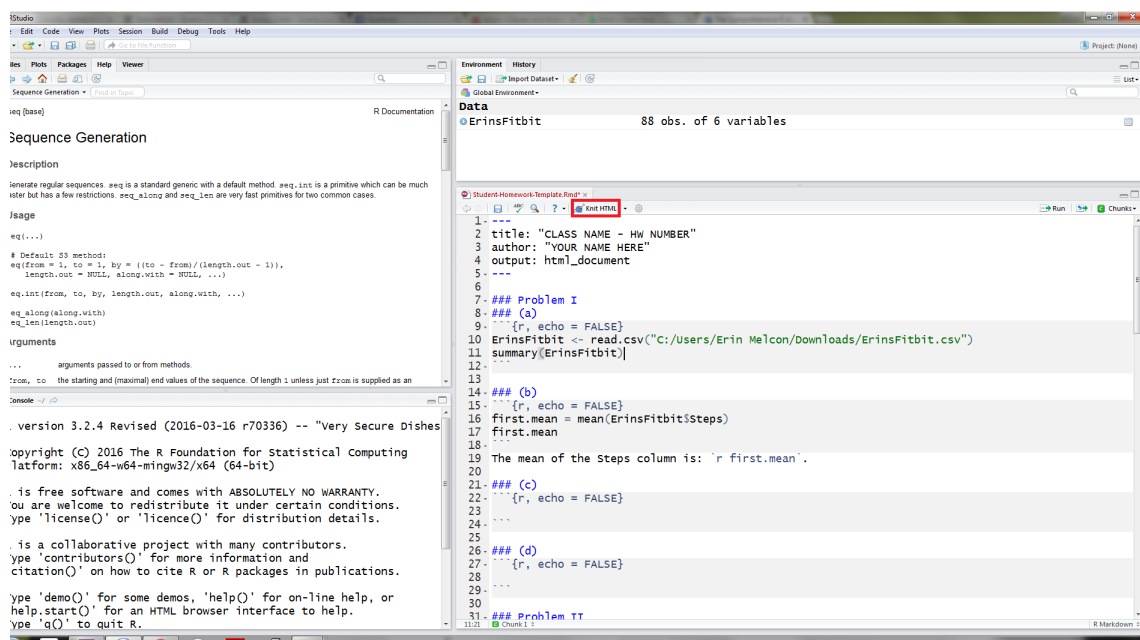
Now, I hit the "Knit HTML" button (outlined in red), which produces an .html file **in the same directory as your .Rmd file was in, with the same name but with the extension .html**.
My .html file can be viewed as:


```
C:/Github/Teaching-Materials/Templates/Student-Homework-Template.html
Student-Homework-Template.html   Open in Browser   Find              Publish
```

CLASS NAME - HW NUMBER

YOUR NAME HERE

Problem I

(a)

```
##      Steps           Miles          Floors          Sleep         Day
##  Min.   :  114   Min.   :0.050   Min.   :  1.00   Min.   :0.000   F  :13
##  1st Qu.: 7722   1st Qu.:3.390   1st Qu.: 11.00   1st Qu.:7.383   M  :13
##  Median :10920   Median :4.930   Median : 16.00   Median :7.617   R  :12
##  Mean   :10749   Mean   :4.759   Mean   : 20.78   Mean   :7.407   Sat:13
##  3rd Qu.:13780   3rd Qu.:6.093   3rd Qu.: 27.00   3rd Qu.:8.104   Sun:13
##  Max.   :20122   Max.   :8.790   Max.   :140.00   Max.   :9.333   T  :12
##                                                                   W  :12
##     Month
##  Feb  :28
##  Jan  :31
##  March:29
##
##
##
##
```

(b)

```
## [1] 10749.34
```

The mean of the Steps column is: 10749.3409091.

(c)

(d)

Problem II

Now I could upload **both the .Rmd and the .html file** to the class website for grading.