**PDAT 610G Module 1 Assignment 1-2 RMarkdown file.**

**Introduction**

The purpose of this assignment is to get you to convert the code you wrote for Assignment 1-1 into RMarkdown. Copy the R script document from Assignment 1-1 and paste it in Rmarkdown file you made in step 1.

**Step 1.** Read the lab on page 2 first.

**Step 2.** Create a new RMarkdown document by clicking on the "green plus" icon at the upper left.

a. Select "RMarkdown..."

b. Type a Title for your document in the dialog box. Perhaps "Assignment 1-2, Your Name"

c. You can leave all the other options as they are and click \*\*OK\*\*.

d. The new file will have some sample code. You can read it if you'd like, but eventually you should delete everything after the chunk that contains "title" and "output" lines.

**Step 3.** Now you need to edit the file appropriate to Rmarkdown. RMarkdown has lots of bells and whistles (I've included a few educational links), but for this assignment I care only about three things:

a. Use the # character at the beginning of a line to mark a new section for each question from Assignment 1-1.

b. Write your actual R code inside of ``` so that it will run, and the output will be shown.

c. Give your explanations and descriptions outside of the code blocks so that they are typeset as regular text. The example below shows how you might write up a question (although I've made up the question).

# Question 0 (Sample Write-Up)

The graph below shows the relationship between average ratings of judges' physical ability and average ratings of those judges' worthiness of retention. Note that there appears to be a moderately strong correlation between the two.

```{r starting stuff}

library(carData) # Assuming you installed it before.

```

```{r Q0}

plot(USJudgeRatings$PHYS, USJudgeRatings$RTEN)

```

**Step 4**. Click the \*\*Knit\*\* button. The first time you do so, you might be asked where to save your markdown file. You'll want to save it somewhere on your Y: drive. When your document has been knitted, you should find an \*\*.pdf\*\* or \*\*.doc\*\* file in the same directory as your Markdown file. When you're done, this .pdf or .doc file will be your submission to Blackboard. Check your knitted document in the Viewer to make sure it looks like you'd like it to look and has correct output. If not, keep editing and correcting things! Click \*\*Knit\*\* again every time you want to see your updates in the Viewer.

---

title: 'Assignment 1-2: R Markdown'

author: "Your name"

date: "Whatever the dates"

output:

word\_document: default

pdf\_document: default

html\_document: default

---

# Introduction to R Markdown

This lab will introduce you to \*\*RMarkdown\*\*, a great package for producing documented and reproducible code. You'll notice that the source code for this lab looks different. This code is written in \*RMarkdown\*, a simple layout language that helps you combine text and code. Markdown is designed to create text that's readable in a text editor, but also can be transformed into HTML or a PDF with section headings, bold, italics, etc.

Click the \*\*Knit\*\* button above, and you should see a finished version of the lab document appear. Does your output appear in a separate window, or does it appear in the \*\*Viewer\*\* tab at right? You can set that option in the gear drop-down menu.

By comparing this code to the finished document, you should start to get an idea of how special symbols in the code convey \*\*bold\*\* or \*italic\* or a list, but are then typeset into actual bold, italics, list, etc.

If you don't have one, you'll want a copy of the "RMarkdown Cheat Sheet" available at http://Rstudio.com

Most of later assignment will be required to be done in \*RMarkdown\*. The important thing to note is that actual R code is contained within sections delimited by ```. Outside of those sections, you'll write regular text to document what you're doing (like I'm doing here).

You can compile a whole RMarkdown file at once using the \*\*Knit\*\* command (knit text and R output into a single document), or you can run a single code section at a time in the console by hitting \*\*CTRL-SHIFT-ENTER\*\* while your cursor is in the code section. The menu attached to the green arrow at the right of each code chunk also gives you options for how to run the code. Try it with the code below:

```{r basic}

2 + 3

4 \* 5

```

Spring 2020 Update