

CS 150 Lab 8

Nested Loops

The objective of today's lab is to practice nested loops.

- Be sure your output looks exactly like the specified output.
- Be sure to submit the completed project to CS150-01 Lab by Friday at 5pm.
- Be sure to follow the coding standards and add comments to your code!

Lab 8.1

Write a C++ program in a project called **08_1_Rainfall** that will determine the average amount of rainfall for the month of March 2011. You can download the skeleton of the program from the CS150-01 Public folder on Turing. The file is called **rainfall.cpp**. Open the file in Visual Studio and copy the code into your **08_1_Rainfall** project. Build and run your project. The skeleton will display the title and the table heading. You are to write the remainder of the program.

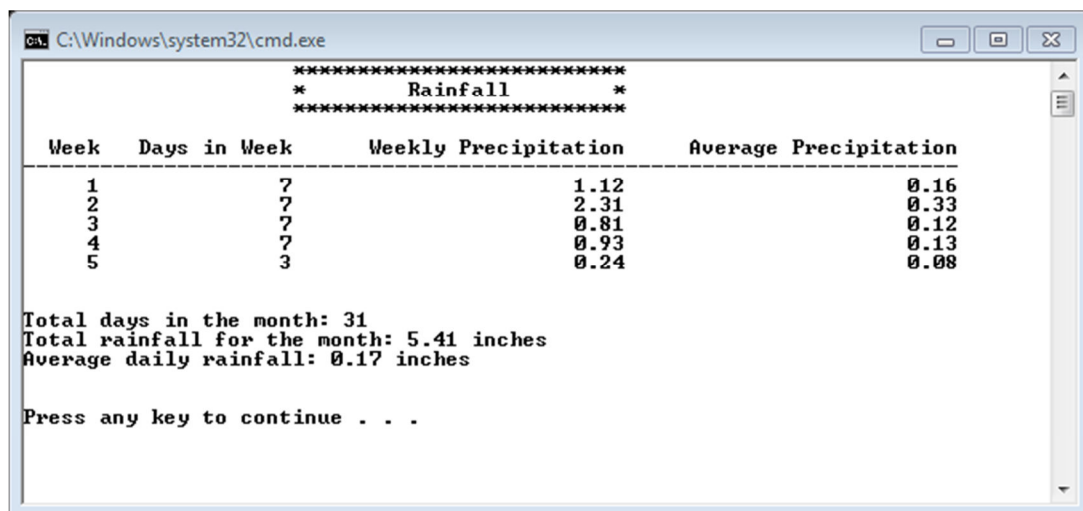
Your program is to read rain precipitation from a file named **rainfall.txt**. Here is what the file looks like:

```
5
7 0.59 0.1 0.12 0.31 0 0 0
7 0.14 0.39 0.5 0 0.26 0.63 0.39
7 0.33 0.17 0.03 0.08 0.09 0.07 0.04
7 0.01 0.17 0.21 0.07 0.3 0.06 0.11
3 0.24 0 0
```

The first number in the file is the number of weeks. This is followed by a line for each week. Each line starts with a number, which is the number of days per week, followed by the amount of precipitation for each day.

In the example file above, there are 5 weeks. The first four weeks have 7 days per week, and the last week has 3 days.

You are to read in from the file and produce the following output:



```
C:\Windows\system32\cmd.exe
*****
*           Rainfall           *
*****

Week  Days in Week  Weekly Precipitation  Average Precipitation
-----
1      7              1.12                  0.16
2      7              2.31                  0.33
3      7              0.81                  0.12
4      7              0.93                  0.13
5      3              0.24                  0.08

Total days in the month: 31
Total rainfall for the month: 5.41 inches
Average daily rainfall: 0.17 inches

Press any key to continue . . .
```

Show the instructor or TA your solution