

CS 150 Lab 07

while Loops

Date: Tuesday, October 9, 2007

The purpose of today's lab is to for you to get some hands-on experience with the different things you can do with loops.

- Be sure your output looks exactly like the specified output.
- Be sure to submit each project to **CS150-01 Lab** when you are done.
- Show the instructor to TA your solution to each problem before submitting it.

Lab 7.1

For this lab, you will need to create a new Visual Studio project that will contain your source code. Name this project "07_1LoopsXXXXXXXX", replacing the XXXXXXXX with your PUNetID.

Write a program that will display all of the following. Your program should have one loop only!

Sample Input and Output:

```
*****
*                               *
*                               *
*****

How many iterations would you like to loop? 5

  Iteration    Multiples of 2    Powers of 2
-----
          1             2           2
          2             4           4
          3             6           8
          4             8          16
          5            10          32
```

What loop will you have in your program? What is your counter? Write an outline here.

Lab 7.2

For this lab, you will need to create a new Visual Studio project that will contain your source code. Name this project "07_2MoneyXXXXXXXX", replacing the XXXXXXXX with your PUNetID.

Determine whether you'd prefer to be paid \$1,000.00 a day for 25 days or a penny the first day, two pennies the second, four pennies the third day and so on, doubling the amount you made the previous day.

Sample input and output follow:

```
*****
*           Loads O' Money           *
*****

  Day   Thousands   Doubling
-----
    1     1000.00     0.01
    2     1000.00     0.02

And so on until you reach the 25th day

    25     1000.00   25th doubling amount
-----
Total    25000.00   Whatever the total is
```

What loop will you have in your program? What is your counter? Write an outline here?

What running totals will you need to keep track of?
