Create a project called Daily20. Add a C source file to the project named daily20.c.

Write a program that asks the user for an integer value greater than zero. It will verify that the user has entered a valid value and then try to allocate enough space using malloc for an array of integers with N elements where N is the integer they entered in the first step. Your program should make sure that the allocation worked and then use a for loop and the square brackets operator to give every integer variable location in the dynamically allocated array the value of its index. For example the variable that is zero elements away from the base address should get the value 0, the value that is 1 element away from the base address should get the value 1 and so on. When you have initialized all the values use another for loop and the square bracket operator to print them in reverse order separated by new lines.

Print a line that has 3 asterisks "\*" in it by itself and then use another for loop that prints all of the array elements in order but without using the square bracket operator. To do this you will need to use only the dereference operator and pointer arithmetic.

Your program output should look something like the following:

```
Please enter the number of elements of your dynamic array: -7
Invalid response. Please enter an integer greater than 0: stuff
Invalid response. Please enter an integer greater than 0: stuff
Invalid response. Please enter an integer greater than 0: 10

Element at index 9: 9

Element at index 8: 8

Element at index 6: 6

Element at index 5: 5

Element at index 4: 4

Element at index 3: 3

Element at index 2: 2

Element at index 0: 0

***

Element at index 0: 0

Element at index 2: 2

Element at index 2: 2

Element at index 3: 3

Element at index 3: 3

Element at index 0: 0

Element at index 2: 2

Element at index 2: 2

Element at index 3: 3

Element at index 6: 6

Element at index 6: 6

Element at index 5: 5

Element at index 7: 7

Element at index 9: 9

Press any key to continue . . . _
```

At the top of your program you should have a comment section that follows the below format:

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Author: <insert your name>

Date: 10/22/2014

Purpose: <Insert a short description of what

your program does here.>

Time Spent: <Insert how much time you spent

on the assignment here>