CS 202
COMPUTER SCIENCE II
SPRING 2016
Assignment #7

Due Date/Time: **05/12/2016 @ 11:59PM**
Total Points: **100**

Description

For this assignment, you are going to:

- Write a **recursive** function that takes an integer as a parameter and returns the number as **an integer** with its digits reversed.
- Test your function.

Restrictions

- Manipulate integers only using arithmetic operations. Do not convert the integers to any other data types and vice versa and do not treat the digits of integer as characters.
- Do not declare any variables in the recursive function; instead use the appropriate parameters.

Coding Style and Documentation

1. All submissions must have the following comment block at the top of their main program:

```
/*
 * Name: Your name, Class, Assignment number
 * Description: a brief description of the program.
 * Input: expected input to the program.
 * Output: expected output of the program. */
```

2. All functions and classes must have the following required documentation immediately above the function/class definition:

```
/*
 * function_identifier: brief description of what the function does.
 * parameters: what to pass into the function
 * return value: what the function returns, if any */

/*
 * class_identifier: brief description of the class
 * constructors: a list of constructor prototypes
 * public functions: a list of public function identifiers
 * private data members: a list of private data member identifiers
 * static variables: a list of any static variables */
```

3. All programs must employ proper indentation.

4. All programs must have reasonable comments throughout.

Submission
Submit your design document and source code files through WebCampus. You will submit the following two (2) files:

Design Document
State the purpose and the functionality of your program.

ReverseInteger.cpp
Implementation file.

Example runs
Example run 1:
Please enter an integer > 0
0 in reverse order is 0

Example run 2:
Please enter an integer > 5
5 in reverse order is 5

Example run 3:
Please enter an integer > 12
12 in reverse order is 21

Example run 4:
Please enter an integer > 4869
4869 in reverse order is 9684

Example run 5:
Please enter an integer > 1352863
1352863 in reverse order is 3682531

All programs must compile without errors and warnings on bobby.cs.unlv.edu using the g++ compiler. Programs that don't match these criteria will be given a zero (0).

No teamwork is allowed. All programs must be your own individual work.