Lab 7

Course: CSE 165
Section: 02L & 03L
Due: Sunday, November 7, at 11:59 pm

All the exercises below are selected from the textbook: Thinking in C++ (volume 1).

1. [Exercise 1 on Page 467] Create a function with a static variable that is a pointer (with a default argument of zero). When the caller provides a value for this argument it is used to point at the beginning of an array of int. If you call the function with a zero argument (using the default argument), the function returns the next value in the array, until it sees a "-1" value in the array (to act as an end-of-array indicator). Exercise this function in main(). [30 pts]

2. [Exercise 2 on Page 467] Create a function that returns the next value in a Fibonacci sequence every time you call it. Add an argument that is a bool with a default value of false such that when you give the argument with true it "resets" the function to the beginning of the Fibonacci sequence. Exercise this function in main(). [30 pts]

3. [Exercise 3 on Page 467] Create a class that holds an array of ints. Set the size of the array using static const int inside the class. Add a const int variable, and initialize it in the constructor initializer list; make the constructor inline. Add a static int member variable and initialize it to a specific value. Add a static member function that prints the static data member. Add an inline member function called print() to print out all the values in the array and to call the static member function. Exercise this class in main(). [40 pts]

Requirements:

* Usage of spaces, blank lines, indention, and comments for readability.

* Descriptive names of variables, functions, structs, classes, and objects (if any).

* Appropriate usage of structs, classes, and objects (if any).

Penalties:

* 10-point deduction per day late until zero.

* Zero if you have possession of a copy of online solutions or work done by someone else.