

Lab 8

Course: CSE 165

Section: 02L & 03L

Due: Sunday, November 14, at 11:59 pm

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

1. [Exercise 7 on Page 425] Create a class that contains an array of char. Add an inline constructor that uses the Standard C library function `memset()` to initialize the array to the constructor argument (default this to ' '), and an inline member function called `print()` to print out all the characters in the array. [\[30 pts\]](#)
2. [Exercise 14 on Page 572] Write a class called `Bird` that contains a string member and a static int. In the default constructor, use the int to automatically generate an identifier that you build in the string, along with the name of the class (`Bird #1`, `Bird #2`, etc.). Add an `operator<<` for ostream to print out the `Bird` objects. Write an assignment `operator=` and a copy-constructor. In `main()`, verify that everything works correctly. [\[40 pts\]](#)
3. [Exercise 18 on Page 782] Templatize the `IntArray` class in `lostreamOperatorOverloading.cpp` from Chapter 12, templating both the type of object that is contained and the size of the internal array. [\[30 pts\]](#)

Requirements:

- * Usage of spaces, blank lines, indentation, 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.