

Lab 7

Course: CSE 165

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

1. [Exercise 7 on Page 425] Create a class (e.g., `myClass`) that contains an array of char (e.g., `char myArray[100]`). Add an inline constructor that uses the Standard C library function `memset()` to initialize the array to the constructor argument (default this to ' ') (e.g., `myClass(char c = ' '){/* call memset(...) properly */}`), and an inline member function called `print()` to print out all the characters in the array. [40 pts]

In `main()`, do the following:

- 1) create an object (e.g., `myObj`) of class `myClass`
- 2) call `myObj.print()` to print out all the characters in `myArray`.

2. [Exercise 2 on Page 570] Create a simple class (e.g., `mySimpleClass`) containing an int (e.g., `int x`) and overload the addition operator (+) and the multiplication operator (*) as two member functions. Also provide a `print()` member function that takes an `ostream&` (e.g., `cout`) as an argument (e.g., `void print(ostream& out)`) and print `x` to that `ostream&` (e.g., `out << x`). [60 pts]

In `main()`, do the following:

- 1) create two objects (e.g., `a` and `b`) of class `mySimpleClass`.
- 2) create another object (e.g., `c`) of class `mySimpleClass` and let `c = a * a + b * b`.
- 3) call `c.print(cout)` to print `x`.

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:

- * Zero if you have possession of a copy of online solutions or work done by someone else.
- * 5-point deduction per day late