

Midterm 2

C++ PROGRAMMING - COSC 2321

Department of Computer Science and Electrical Engineering

Summer Session I, 2022

Exercises

Create a **New Project** for every exercise. Take a screenshot of the source code along with its output and place the **source code** and the **screenshot** in a **zipped folder** named **LastNameFirstName_Midterm2**

Exercise 1

Create *three* files, two *.cpp* and one *.h*. In the header file define a Class named *myClass* that has two *private* member variables, a **string** and an **int** (*full name and ID*). In the *myClass.cpp* file write the function definitions for the *parameterless* default constructor, destructor and, setter and getter functions. In the main *.cpp* file **dynamically allocate an array of three objects**. Use the **arrow operator** to assign as well as to retrieve data from the objects. Ask the user to enter the names and IDs of *three* students (assign to private members using only the **-> (arrow) operator**. Print output using again only the **-> (arrow) operator**. Number 3 should be defined in the **preprocessor**. Use two *static int* variables, one in the *Constructor* and another one in the *Destructor* to print the number of times each one of the functions is called

Note: Do not use [] at all (use only the **->** operator)

Exercise 2

Create a *Class* named **Books** with two **private** members, **string title**, **int ISBN[2]** (each book title contains two ISBN codes). Create *three* objects by **overloading** the constructor function thrice (use the *default* (parameterless) and two parameterized constructors). Use only **getter** functions to retrieve the values from the **private** members and print their values from within **main**. There is no need to use multiple files

Note: Do not use any *setter* functions in this exercise

Note: Submit through **Canvas**