**LAB 3**

**Problem 1**

This program takes 4 files that are already semi-completed: Handle.cpp, Handle.h, UseHandle.cpp, and require.h. My job was to edit the files accordingly in which a constructor and a destructor is used. I used help from <https://www.tutorialspoint.com/cplusplus/cpp_constructor_destructor.htm>, in which I was able to edit the Handle.cpp to include a Constructor and Destructor that will cout when it is called. The Handle.h declares the constructor and deconstructor. Only thing changed in UseHandle.cpp is to include Handle.cpp. require.h was unchanged. When ran, it will print “Constructor.” And “Destructor.” Meaning an object was created and then destroyed.

Compile: g++ UseHandle.cpp -o test

Run: ./test

NO INPUT

**Problem 2**

This program has 2 files, test.cpp and input.txt. test.cpp has a Text class with a default constructor and a constructor that takes in a file to open. The class contains a member function contents() that returns the strings inside the file. Main() will create 2 text objects, a default one called string1 and one called string2 that inputs the file “input.txt”. input.txt contains 3 sentences one 3 different lines that vary in length. When the program runs it will return a blank for string1 since it’s a default text object, but string2 will return the content from input.txt. I received help from 2 different sources, both of which are in the comments in test.cpp.

Compile: g++ test.cpp -o test

Run: ./test

NO INPUT

**Problem 3**

This program has 1 file, test.cpp. It contains a IntArray class in which creates an incremental array of size 10: 1,2,3…,10 and has a member function printArray(), which will print the contents of the array using a pointer. The question didn’t specify if the size or content of the array needed to be inputed so by default its set to sized 10: 1,2,3…,10. It would be very easy to make it ask the user for custom inputs but I didn’t since the question didn’t ask me to, so there is no input needed. When running the program what we get is “1 2 3 4 5 6 7 8 9 10” which is expected since that is what we set out default int array to be.

Compile: g++ test.cpp -o test

Run: ./test

NO INPUT