**Name:**

**Advanced Programming in C++**

**Lab Exercise 2/13/2023**

In this exercise, you will demonstrate the use of classes in the C++ programming language. All classes will be defined in a class definition file (something.h) and implemented in a class implementation file (something.cpp). You should test your class using with a main driver program that creates an object and uses the class member functions When you have completed your programs, you are to submit your documented source code as well as a sample output.

1. Write a program that uses a class named MovieData to store the following information about the movie:

Title

Director

Year Released

Running Time in Minutes

1. Write a constructor function that initializes the class members (should be private).
2. Declare two MovieData object variables firstMovie and secondMovie
3. Pass the two MovieData object variables to the constructor function where they will be assigned values based upon user input.
4. Write a public displayMovie function that displays all information about the movie. Running Time should be displayed in HH:MM format.
5. Write a function hoursMinutes that returns the hours and minutes and is passed the number of minutes. This function should be called by displayMovie.
6. Write public “get” functions to access the private class member variables.
7. Write a main function that will create the objects and then print a report for each of the movies.
8. Create a BankAccount class that has four members. The first member would be the name of the account holder, the second would be the account number, the third would be the account category (‘S’ (savings), ‘C’ (checking), and ‘M’ (money market)) and the fourth member is the interest rate which is based on the third category. Here are the following annual interest rates: 0.5% for checking, 1.5% for savings, and 2.5% for money market. In your main program, create three bank account objects and initialize them with values of your choice. Your program should then print the contents of the three objects using a printAccount method.