**Name:**

**Advanced Programming in C++**

**Lab Exercise 2/16/2021**

In this exercise, you will write several programs that will demonstrate the use of structures in the C++ programming language. All structures will be declared globally. 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 structure 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 structure members.
2. Declare two MovieData variables firstMovie and secondMovie
3. Pass the two MovieData variables to the constructor function where they will be assigned values based upon user input.
4. Write a 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 a program that uses a structure named CorpData to store the following information on a company division:

Division Name (such as East, West, North, or South)

First Quarter Sales

Second Quarter Sales

Third Quarter Sales

Fourth Quarter Sales

Total Annual Sales

Average Quarterly Sales

1. Write a constructor function that allows the division name and four quarterly sales amounts to be specified.
2. Create four variables of this structure representing the four corporate divisions North, South, East, and West.
3. Pass each of the four structure variables to a function that calculates and stores Total Annual Sales and Average Quarterly Sales.
4. Pass each of the four structure variables to a displayCorpData function that displays all of the data about the division.