Assignment 2

Weight: 20% of your final grade

Due: After Unit 7

Assignment 2 requires you to write ***three*** C++ programs using the information you have studied in Units 4–7.

C++ Programs

1. Write a program to manage DVD rental in a video rental store. Create an abstract data type that represents a DVD in this store. Consider all the data and operations that may be necessary for the **DVD** type to work well within a rental management system. Include a **print()** member function that displays all the information about the **DVD**. Test your data type by creating an array of ten DVD instances and filling them using information read from a test input file that you create. Display the **DVD** information.

2. Write a program in which you create a **Hen** class. Inside this class, nest a **Nest** class. Inside **Nest**, place an **Egg** class. Each class should have a **display()** member function. For each class, create a constructor and a destructor that prints an appropriate message when it is called. In **main()**, create an instance of each class using new and call the **display()** function for each one. After calling **display()**, free the storage using **delete**.

3. Write a program in which you create a **Text** class that contains a **string** object to hold the text of a file. Give it two constructors: a default constructor and a constructor that takes a **string** argument that is the name of the file to open. When the second constructor is used, open the file and read the contents of the file into the string member object. Add a member function **contents()** to return the **string** so that you can display it. In **main()**, open a file using **Text** and display the contents.

Deliverables

The deliverables for this assignment are as per the Assignment Requirements and Marking Criteria document.

 Pay special attention to the file-naming convention!

All deliverables must be zipped into one file. Upload the file here to send it to your tutor for marking and feedback.

Marking Scheme

You will be graded on the following criteria:

Program compiles without errors	20%
Correct program execution	20%
C++ program correctness and style	20%
Program documentation	20%
Test plan	20%
Total	100%