Assignment 3

OBJECT ORIENTED PROGRAMMING (CSN 203)

1. A book shop maintains the inventory of books that are being sold at the shop. The list includes details such as author, title, price, publisher and stock position. Whenever a customer wants a book, the sales person inputs the title and author and the system searches the list and display whether it is available or not. If it is not an appropriate message is displayed. If it is, than the system displays the book details and the request for the number of copies require. It the requested copies are available , the total cost of the requested copies is displayed: otherwise the message "required copies not in stock" is displayed Design a system using a class called books with suitable member functions and constructors.

2. Improve the system design in exercise 1 to incorporate the following features

   a) The price of the book should be updated as and when required. Use a private member function to implement this.

   b) The stock value of each book should be automatically updated as soon as a transaction is completed.

   c) The number of successful and unsuccessful transactions should be recorded for the purpose of statistical analysis. Use the static data members to keep count of transactions.

3. Create two classes. The first holds customer data- specifically, a customer number and zip code. The second , a class for cities, holds the city name, state, and zip code. Additionally each class contains a constructor that takes arguments to set the field values. Create a friend function that displays a customer number and the customer's city, state, and zip code. Write a main() function tot test the classes and friend function.

4. Create two classes. The first, named Sale, holds data for a sales transaction, it private data members include the date of month, amount of the sale and the saleperson's ID number. The second class, named salesperson, holds data for a salesperson, and its private data member include each salesperson's ID number and last name. each class includes a constructor to which you can pass the field values. Create a friend function named display() that is friend of both classes and displays the date of sale, the amount, and the salesperson ID and name. write main() function to demonstrate the program which tests classes and friend function. Save the file as sales.cpp.