CSE 215: Programming Language II Lab
Assignment on: File IO
Full Marks: 100

The following data is of some books. The data denotes, from left to right, the book_title, author, isbn and genre, respectively. Each data is separated by a comma.

City by the Sea,Eileen Olanda,206071749-3,Crime|Drama
This is Our Time,Margit Dallaway,286822289-7,Drama
"Little Romance, A",Arnuad Sissons,399130238-1,Comedy|Romance
Carrington,Rora Levin,245062057-5,Drama|Romance
7 Days (Les 7 jours du talion),Vivianna Brackpool,276874242-2,Thriller
"Sucker, The (Corniaud, Le)",Jeni Pensom,960229691-7,Comedy
"Housemaid, The (Hanyo)",Abner Stollwerk,824206412-1,Crime|Drama|Horror
Incognito,Leigh Tyrer,580105962-8,Crime|Thriller
"Jungle Book, The",Candis Bezzant,315318808-4,Animation|Children|Comedy|Musical
I Heart Huckabees,Netti Rupel,151877067-3,Comedy
Project A ('A' gai waak),Chester Kampshell,259316635-5,Action|Comedy
Boy of the Streets,Kellby Hamblington,097275624-8,Drama
Disneyland Dream,Vilhelmina Gregine,674789080-9,Documentary
"Hill, The",Charmaine Hurd,831461304-5,Drama|War
"Marine, The",Devon Coole,828717980-7,Action|Drama|Thriller

a. Write a class that is able to hold the data of the books. The class should have proper constructors, adequate number of attributes, getters and setter methods for all attributes. The attributes must be private. For toString() method, **all attributes in the class must be printed out on separate lines** in the following format:

Attribute name: Attribute value

b. Copy the given data to a text file. Name the text file "book_data.txt".
c. Write a class called BookFileIO. Create a static method that can read the file, and create objects for each row of data. The objects must be of the class you defined in (a). Put the objects in an array and return it from the said method.
d. In your main method of the BookFileIO class, call the method defined in (c).
e. For each book in the array, print its name, author name and genre.
f. Write a static method that can take an array of objects of the class you defined in (a) and a genre as its parameters. This method should return a new array of objects of the class you defined in (a). The new array should contain only those objects whose genre contains the word passed as value in the second parameter of the method.
g. Write a static method that can accept an array of objects of the class you defined in (a) and a filename. This method writes the toString() representation of the objects in the array to the file which is named like the given filename parameter.
h. Call the method you defined in (f) with the array that contains all the objects. The value of the genre parameter going to the method should be "Drama".
i. Call the method you defined in (g) with the result from (f) and filename "drama_books.txt".
j. Submit both text files "book_data.txt", "drama_books.txt" as well as the .java file(s).