Revise the **Book** and **Library** classes.

1. Implement a **Book** class. A book object should keep track of the following information: book's title, book's isbn, number of pages in the book, and whether the book is on loan. All the instance variables should be private.
   
   a. Write a constructor for the Book class that takes the title, number of pages and the isbn. By default, a newly created book is not on loan.
   
   b. Write the **get** methods for all the fields. (Hint: Can you use Eclipse to generate them?) Write a **set** method for the instance variable that specifies whether the book is on loan. Note that because being on loan is a boolean value, by convention, the names you should use should be similar to **isOnLoan()** and **setOnLoan()**.
   
   c. Write a **toString()** method.

2. Write a **Test** class with a **main** method that creates three **Book** objects. Then use **System.out.println()** to print the objects.

3. Implement a **Library** class. A library object keeps track of the following information: library's name, library's phone number, and a book collection. All the instance variables should be private. **What type should you use for the book collection?**
   
   a. Write a constructor for the Library class. The constructor takes as parameter the name and the phone number of the library. By default, a newly created library does not have any books (i.e. the collection is empty).
   
   b. Write a **get** method for the name and phone number field. Write a **set** method for the phone number. The name of the library cannot be changed once it has been created.
   
   c. Write an **addBook** method that receives a Book and adds it to the collection.
   
   d. Write a **contains** method that takes the **name** of a book (i.e. does NOT take a Book object as its parameter, takes only the name) and determines whether the library has that book in its collection.
   
   e. Write a **toString()** method. How can use make use of the **toString()** method of Book when writing the **toString()** of Library?

4. Modify the main method to create two Library objects. Associate books with libraries. Print libraries using **System.out.println()**.

5. Play with the code. Do various things. Make yourself comfortable about how objects work. E.g. Ask the user to enter a book title, then display if the book exists in any of the libraries, and if so, which one. E.g:

Ozyegin Library's collection:
Deitel's Java: 444-43-2, 305 pages, on loan:false
Clean Code: 555-42-6, 305 pages, on loan:false
Discrete Math: 411-78-9, 305 pages, on loan:false
Calculus: 345-12-0, 305 pages, on loan:false
Can you write a simple Course Management System? Classes are **Student**, **Course**, and **Teacher**. Think about what instance variables you should define.