

HW 4

This HW is a practice of what we recently did in class: *extending one class while implementing an interface*.

The goal of this coding exercise is to create two classes `BookstoreBook` and `LibraryBook`. Both of those classes inherit from the class `Book` {author, title, isbn and year as private data members}, and implement the interface `Codable`.

The interface `Codable` has one signature { `String createCode();` } that is, when implemented, returns a code in the form of a string as follows:

- The code of a library book is a string of the form: **[general subject-author-title-year]**

Example: **[bio-emily jones-the origin of species-1965]** means that *Biology* is the general subject, *Emily Jones* is the author, *The Origin of Species* is the title, and this book was published in **1965**.

- The code of a bookstore book is a string of the form: [isbn-author-price]

Example: **[23654585-emily jones-89.99]** means that **23654585** is the isbn, *Emily Jones* is the author, and **89.99** is the price of the book.

Your code will be tested with a code similar to (**So please have the same code below in your main method**):

```
Book b1 = new LibraryBook("Emily jones", "The Origin of SPECiEs", "23654585", 1965, "bio"),  
    b2 = new BookstoreBook("Emily Jones", "The Origin of SPECiEs", "23654585", 89.99, 1965);
```

```
System.out.println (b1.createCode()); //prints [bio-emily jones-the origin of species-1965] to the screen
```

```
System.out.println (b2.createCode()); // prints [23654585-emily jones-89.99] to the screen
```

```
System.out.println (b1);
```

```
//the above line should print: the origin of species by emily jones published in 1965, biology
```

```
System.out.println (b2);
```

```
//the above line prints: 23654585: the origin of species by emily jones published in 1965, $89.99
```

Additional instructions:

- The list of subjects to consider are : **bio** (biology), **acc**(accounting), **psy** (psychology), and **rel** (religion).
- Your code won't be tested for any other subjects so there will be no need to check for that nor for something like a wrong format for a year or price of the book. Also, there is no need to check extra while spaces in names or titles...
- Make sure that your Java program doesn't contain redundant code!
- Please try to have everything in one .java file to submit on Webcourses