



CIS 3270 Assignment #5: Encapsulation and Aggregation

Due Date: September 27th

Instructions:

This exercise is about encapsulation and aggregation practices. The program models a simple book review scenario. Develop a "Book" class and an "EditorialReview" class. Every "book" has one "editorial review". You may refer to Amazon.com to have a look at the real case, although it is much simplified in this assignment. The instruction below gives minimum requirements and you are free to make the case more complicated, based on your understanding and modeling of the real case.

- a. Properties of the "Book" class: ISBN, book title, author name(s), publish year, editorial review (of type "EditorialReview"), price. Choose appropriate data type for each property.
- b. Properties of the "EditorialReview" class: book ISBN, reviewer, review content, book rating (on an 1 to 5 scale). Choose appropriate data type for each property.
- c. Methods of the "Book" class:
 - i. One method to calculate the discount. In this scenario, the discount is based on the review rating.

Review Rating	Discount
1	20%
2	15%
3	10%
4	5%
5	0%

- ii. One method to print out the book information and editorial review information on the screen, something like this (correctly formatted):

```
Book Title: xyz
Author: abc
Year: 2000
Original price: $19.99 (discounted price: $18.99)
Editorial Review - from Publisher Weekly (rating: 4)
    Good book!
```

- d. Use appropriate constructors or methods to create objects and assign object values.
- e. Create a main method in the Book class. Construct a "Book" object and an "EditorialReview" object. Print out all information (the book and reviews) nicely on the screen.

Last, you need to strictly follow the *encapsulation/information hiding* practices.

Submission: for each exercise,

- A screenshot of the JDeveloper environment (with running result);
- Complete source code, printed out separately (pasted in Word).

Note: screenshots need to be complete and original, no graphic editing. Clearly name and label all screenshots and source code.