

PROG 10082 - Assignment #2

Specification:

Due Date: Sunday September 28 @ 11:00 pm

Submit via SLATE Dropbox

Description:

1. Design and implement a **Book** class.
 - a) A book has the following properties:
 - The title of the book
 - The book's author
 - The regular price of the book
 - A user review rating – this value is an integer between 1 and 10
 - Whether the book is a hardcover or not
 - b) A book has the following methods:
 - A method that calculates and returns the discounted price of the book based on the regular price. The percentage of discount is passed in as an argument to the method.
 - A method that displays a description of the book to the console. This method has no return value. The general description of the book to display to the console is as follows (all text in green represent book properties that you need to display):

Title by **Author**
Suggested Retail Price: **\$Price**
User Rating: **Rating/10**
Hardcover Version? **Hardcover**
 - c) Your book class should have a constructor that initializes all properties of a **Book** based on the parameters passed in.
2. Create a class, **TestBook**, which tests the implementation of your **Book** class. Your test class should do the following:
 - Create a new instance of the book "To Kill a Mockingbird" by Harper Lee. The hardcover version of the book is \$21.95 and the current user rating is 9 out of 10.
 - Use the methods of your **Book** class to display a description of the above book and the new price of the book if a 20% discount were to be applied.

Below is an example of the console output from your test program:

```
Book Description:
To Kill a Mockingbird by Harper Lee
Suggested Retail Price: $21.95
User Rating: 9/10
Hardcover Version? true

The price of the book after a 20% discount is applied: $17.56
```

Submission:

You will be submitting two Java files, **Book.java** and **TestBook.java**. Each class should have a multi-line comment at the top of your source code similar to that below:

```
/*  
    Name: [Your Name]  
    Assignment 2  
    Due Date: [Date Due]  
  
    Description: [A brief description of what this class is/does]  
*/
```

Evaluation:

This assignment is out of a total of **20 marks** with the following breakdown:

Book.java

Definition of data fields	/2
Constructor	/2
Method that returns the discounted price of a book	/4
Method that displays a description of the book	/4

TestBook.java

Create new instance of Book	/2
Program output by invoking methods of Book class	/4

Coding Conventions	/2
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TOTAL	/20
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