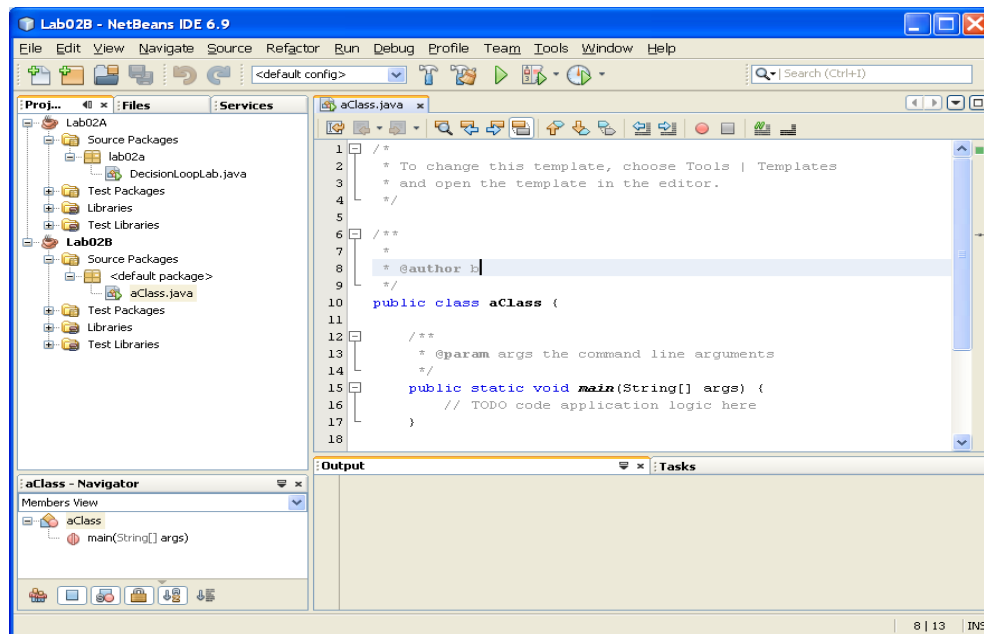


PROBLEM STATEMENT:

Extend and modify a previously created java program

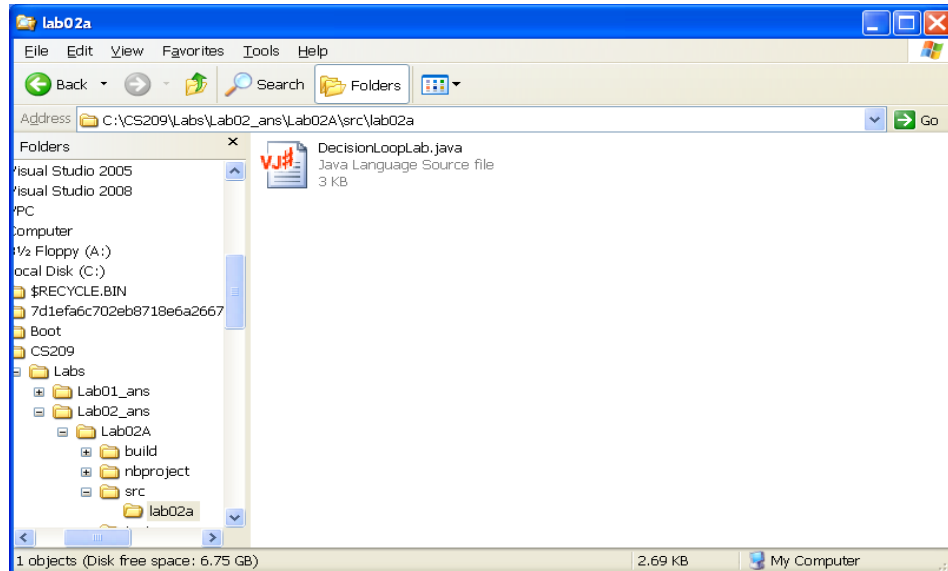
CODE :

Create a project and java main method.  
In your CS209 directory, create a folder called lab02 within this folder  
create your project  
Call it Lab02B for the project and aClass. for the Main class  
After the project is created, note the difference in the directory structures; Lab02A versus  
Lab02B,: Lab02B does not have a package name



Note that lab02B does not have a package name, nor does the created .java file have the package statement.  
Use of packages is important, but not necessary. Will discuss later. Stating with lab 3, make sure all projects use the package statement

Note the different paths in Lab02A and Lab02B



C:\CS209\Labs\Lab02\_ans\Lab02A\src\lab02a



C:\CS209\Labs\Lab02\_ans\Lab02B\src

### Remember :

in java the name of the class and the file in which it resides **MUST** be the same  
For example, if one creates a class called say, someClass, it must live in the file called someClass.java

Now copy the previously created .java; i.e the code used in Lab02A to the aClass.java file

**Modify and extend this program:**

Add a High-Medium-Low total purchase level indicator.

Declare an additional String variable, named `totalPurchaseLevel`, to hold a term that indicates the level of the total purchase cost of the DVDs. Use the terms "Low", "Medium", "High" and "Very High".

Add an if-else statement structure that assigns the correct term, to the variable `totalPurchaseLevel`, based on the total cost of the purchased DVDs. The logic should be as follows:

If the total purchase cost is less than \$25, then assign "Low".

If the total purchase cost is greater than or equal to \$25 and less than \$75, then assign "Medium".

If the total purchase cost is greater than or equal to \$75 and less than \$125, then assign "High".

If the total purchase cost is greater than or equal to \$125, then assign "Very High".

Add this total purchase cost indicator term to the output string during each pass through the main loop and have it displayed on each DVD row of the display.

**Modify and extend this program:**

Compute the final discount for customer. Add an if-else statement structure that computes a discount based on the final total cost of the customer's purchases.

Declare an additional variable of type double, named `discountPercent`, to hold the percent to be applied to compute the customer's discount.

Add an if-else statement structure that computes the dollar value of the discount. The discount level depends on the total cost of the customer's purchases. The logic should be applied when the user is finished inputting DVD selections. The logic should be as follows:

If the total purchase cost for all DVDs is less than \$25, then apply 5% discount.

If the total purchase cost is greater than or equal to \$25 and less than \$75, then apply 10% discount.

If the total purchase cost is greater than or equal to \$75 and less than \$125, then apply 15% discount.

If the total purchase cost is greater than or equal to \$125, then apply 20% discount.

**Modify and extend this program:**

Display the final monetary values. Add an additional line of output that displays:

The total purchase cost for all the customer-selected DVDs,

The discount to be applied, as a percent,

The total dollar value of the discount, and

The final discounted total cost to the customer for all the DVDs.

**Modify and extend this program:**

Apply formatting to all displayed monetary values, which are of type double, so that they always show a dollar sign and print with two digits to the right of the decimal. To implement this formatting, you need to do the following:

At the top of your Java file, right below the package statement, add the following import statement. The reason for this is that the `DecimalFormat` class is in the package `java.text`.  
`import java.text.*;`

Add the following declaration within the main method:

`DecimalFormat prec2 = new DecimalFormat("#.00");`

Then, within the code that builds up the output display string (using String concatenation), for each monetary double value to be printed, instead of just using the expression whose value is to be printed out, invoke the method `prec2.format(x)` and pass the expression as a parameter to this method (in place of the `x`). For example:

```
outputStr += "DVD Cost: " + prec2.format(cost) );
```

If you need additional information on the predefined `DecimalFormat` class in the package `java.text`, consult the online Help in NetBeans for documentation.

Test and debug your program. Test your program using a variety of data. Be sure that the output values are displayed correctly, especially the monetary values.

As usual, create batch file.

Create a batch file as you did for the previous exercises so that your program can be executed without the use of NetBeans.

Be sure that the batch file is within your top level project folder.

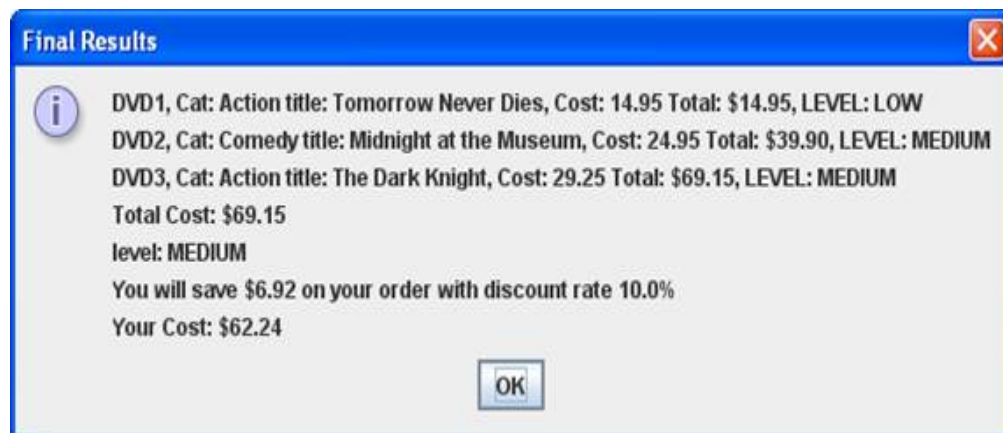
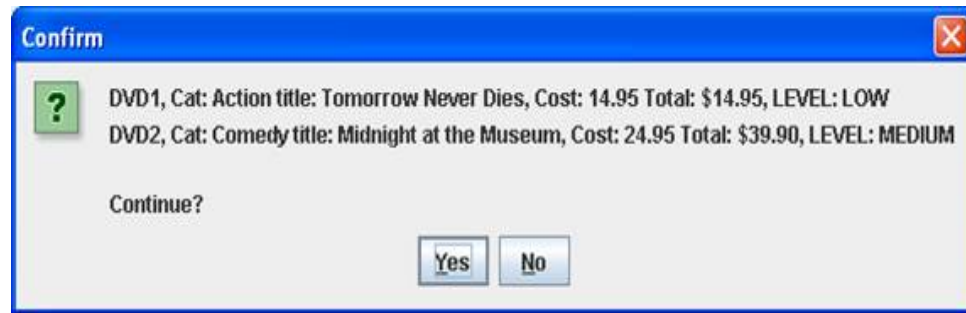
As usual, create ReadMe.pdf file:

use directions as outlined in Lab01A, Lab01B, and Lab02A

As usual, zip the project folder and all its contents.

Change the name the zip file so that its name consists of your name along with the assignment number, as follows: " LastName\_ Lab\_02B\_cs209.zip".

Sample screen shots:



Deliverables:

Send to [streller@ecc.edu](mailto:streller@ecc.edu) an email this the exact subject

cs209\_\_ Lab\_02B

In this email attached the above named zip file

LastName\_ Lab\_02B\_cs209.zip

DUE DATE for Part A: see 02A  
for Part B: 5:00pm 18 September 2014.

As mentioned above, the zip file containing your entire NetBeans project folder with all its subfolders and files.

The zip file must also include your batch file to run the program without using NetBeans. The batch file must be in your top level project folder

The zip file must include your ReadMeA file that contains your name at the top, the lab number, any comments regarding the assignment, and window captures to show the program execution. The ReadMe file must be in the top level project folder.