### **PROBLEM STATEMENT:**

- 1.Gain experience with the use of the while-loop and break statements.
- 2.Gain experience with the use of the if-else and switch statements.
- 3. Gain experience with formatting of numeric values for display purposes.
- 4.Gain more experience with the use of strings for output and with string concatenation.
- 5. Gain more experience with the use of JOptionPane dialogs.

## CODE:

Obtain file DecisionLoopLab.txt

Create Project and Java class/file.

Follow the instructions in Lab01A to create a new project in NetBeans

In your CS209 directory, create a folder called lab02

create your project in this directory

Call it Lab02A for the project and lab02a.DecisionLoopLab. for the Main class

Do not use blank spaces in the name of the project.

# Copy text file contents.

Using Gedit, TextPad, UltraEdit, or WordPad, open the DecisionLoopLab.txt file.

(Note: Do not use NetBeans to open instructor's file!! Do not confuse yourself by having two files open in NetBeans with the same name.)

Delete all the contents of the DecisionsLoopLab.java file that you have open in NetBeans,

except for the package statement. Keep the package statement created by NetBeans

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Reformat the program. Reformat the Java code so that it has proper indentation and alignment:

Click in the editor pane to get the focus on this pane. Then hold the Ctrl (Control) key down and hit the "a" key. This will select all the contents of the Java file.

Then right click on the selected text and select Reformat Code from the pop-up menu.

Compile and run the program. The input and output dialogs displayed during program execution are shown below.

# Modify/enhance the program.

Make the following modifications to enhance the program.

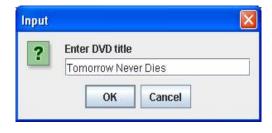
See the window captures of the finished program below for examples of program inputs and output.

Modification 1. Add a DVD counter and display a number for each DVD.

Add a DVD counter variable that increments when the information on each DVD is input by the user.

Use this counter to number the DVDs as they are added to the output string for display. Each line should start with the DVD number.

Modification 2. Add a category capability and display results.







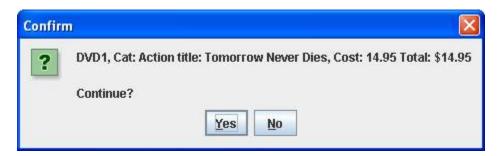
Declare a variable to hold the category of the current DVD being input by the user. Add a JOptionPane dialog to present the list of categories and to enable the user to select a category. See the window capture below for the list of categories that your dialog must present. The user must be able to just enter the number of his/her desired category (not the full name of the category).

As in Exercise 1, your code must convert the string returned by the JOptionPane showInputDialog method. That is, the showInputDialog method returns a string comprised of the user's input. Your program must include the extra code needed to convert the string comprised of the user's input from data type String to data type int.

You must write a switch statement that will convert from the integer number to the full name of the category. The integer number resulting from the above step should be used as the control variable for the switch statement.

Add the full name of the category for each DVD, with the explanatory label "Category: ", as part of the output display string.

That is, continue to display the information on each DVD on one line, with each DVD on a separate line. Each line must include the label "Category: " followed by the name of the DVD's category.



Modification 3 Add a total cost accumulator and display the accumulated total cost.

Add a total cost variable to keep an accumulating total of the cost of all the DVDs entered by the user. This total cost must be incremented during each pass through the main loop by the value of the new DVD being entered during the particular pass through the loop. Add this total cost to the output string during each pass through the main loop and have it displayed on each DVD row of the display.

Test and debug your program. Test the program that you have developed thus far using a variety of data.

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.

Create ReadMe file.

Create a file named ReadMe.pdf

In this document, insert your name at the top, and on the next line insert the assignment number (e.g., "Exercise #2-A").

Then enter any comments regarding the assignment and your program. Then insert several window captures of windows showing the inputs and outputs from the execution of the program.

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

Zip the project folder and all its contents.

If you are using Windows, then in Windows Explorer navigate to the folder containing your project folder, and select (highlight) the project folder. Select menu File>Send To, and select Compressed (zipped) Folder from the list. cAs a result, a new zip file will be created and displayed. This new file contains your NetBeans project folder and all its sub-folders and files in a compressed format.

Change the name the zip file so that its name consists of your name along with the assignment number, as follows: " LastName\_ Lab\_02A\_cs209.zip". Do not use spaces in the name of the file, use underscores or hyphens instead.

### **Deliverables:**

Send to streller@ecc.edu an email this the exact subject

cs209 Lab 02A

In this email attached the above named zip file

LastName\_Lab\_02A\_cs209.zip

Due Date: 7:30pm 11 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 ReadMe. This 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.