

## CSE1322L - Lab 11

### Concept Summary:

In this lab you'll be writing a program to keep track of your BlueRay collection. You'll use an object to describe an individual disk, which will include the title, director, cost and year of release. Then you'll utilize a linked list data structure to keep track of your collection. Finally you'll write a driver to allow you to add disks to your collection, as well as see the current list of disks in your collection.

### Tasks:

1. Write a BlueRayDisk class which has:
  - a. Public attributes called title and director (strings), year of release (int) and cost (double).
  - b. Constructor which takes in the 4 attributes and sets the objects variables.
  - c. Override of toString/ToString which prints the objects variables as follows:  
  
[Dollar sign]Cost [space] Year of release [Space] Title [comma] Director  
\$19.99 2019 Avengers - Endgame, Anthony Russo & Joe Russo
2. Write a node class which has a data field that holds a BlueRayDisk and a next field which is a link to another node.
3. Write a BlueRayCollection class which has:
  - a. A private link called head that links to a Node, it should be initialized to null
  - b. A public method called add() which takes 4 parameters (title, director, year of release, cost) and returns nothing. It should create a new Node and add it to the *end* of the linked list.
  - c. A public method called show\_all() which takes no parameters and returns nothing, but prints out all the BlueRays in the collection. It should utilize the toString or ToString method to print each BlueRay.
4. Write a main program which does the following:
  - a. Instantiate a BlueRayCollection
  - b. Present the user with a menu that gives the following choices:
    0. Quit
    1. Add BlueRay to collection
    2. See collection
  - c. Read in the users choice. If they choose 1, prompt the user for a title, director, year of release and year, and call the add method in the BlueRayCollection object you created. If they choose 2, call the show\_all method in the BlueRayCollection object you created.

## **Sample Output:**

0. Quit
1. Add BlueRay to collection
2. See collection

1

What is the title?

Jaws

What is the director?

Steven Spielberg

What is the year of release?

1975

What is the cost?

19.95

0. Quit
1. Add BlueRay to collection
2. See collection

2

\$19.95 1975 Jaws, Steven Spielberg

0. Quit
1. Add BlueRay to collection
2. See collection

1

What is the title?

Jurassic Park

What is the director?

Steven Spielberg

What is the year of release?

1993

What is the cost?

17.99

0. Quit
1. Add BlueRay to collection
2. See collection

2

\$19.95 1975 Jaws, Steven Spielberg

\$17.99 1993 Jurassic Park, Steven Spielberg

0. Quit
1. Add BlueRay to collection
2. See collection

0

## **Submission Guidelines:**

You will turn in one program with multiple classes.

Please follow the posted submission guidelines here:

<https://ccse.kennesaw.edu/fye/submissionguidelines.php>

Ensure you submit before the deadline listed on the lab schedule for CSE1322L here:

<https://ccse.kennesaw.edu/fye/courseschedules.php>