

Practical 2

Student Name: RAJDEEP JAISWAL

UID: 20BCS2761

Branch: CSE

Section/Group: 20BCS_WM_902-B

Subject Name: PBLJ Lab

Subject Code: 20CSP-321

- **Aim:** Design and implement a simple inventory control system for a small video rental store.
- **Task :**

A Video Rental Inventory System

The goal of this project is to design and implement a simple inventory control system for a small video rental store. Define least two classes: a class **Video** to model a video and a class **VideoStore** to model the actual store. Assume that an object of class Video has the following attributes:

1. A title;
2. a flag to say whether it is checked out or not; and 3. An average user rating.

Add instance variables for each of these attributes to the Video class.

In addition, you will need to add methods corresponding to the following:

1. being checked out;
2. being returned; and 3. receiving a rating.

The VideoStore class will contain at least an instance variable that references an array of videos (say of length 10). The VideoStore will contain the following methods:

1. addVideo(String): add a new video (by title) to the inventory;

2. checkOut(String): check out a video (by title);
3. returnVideo(String): return a video to the store;
4. receiveRating(String, int) : take a user's rating for a video; and
5. listInventory(): list the whole inventory of videos in the store.

Finally, create a VideoStoreLauncher class with a main() method which will test the functionality of your other two classes.

CODE-:

Class video-: package
student;

```
import java.util.*;
public class video {
String title;
    public boolean checked=true; int rating=0;
public boolean checked()
{
return checked;
}
public void rent()
{
checked=false;
}
public void returned()
{
checked=true;
}
public int getrating()
```

```
{ return rating;
}
}
```

Class videolauncher-:

```
package student;

import java.util.*; public class
videolauncher { public static void
main(String[] args)
{ videostore vs =new videostore();
Scanner sc=new Scanner(System.in);
int s1; String a; String b = " ";
do
{
System.out.println("=====Menu=====");
System.out.println("1. Login as user");
System.out.println("2. Login as admin ");
System.out.println("Enter Your Choice"); s1=sc.nextInt();
switch(s1) { case 1: int s2; String title2;
do
{
System.out.println("1. List Inventory");
System.out.println("2. Rent a video ");
System.out.println("3. Want to give rating of video ");
System.out.println("4. Want to return a video ");
s2=sc.nextInt(); switch(s2) { case 1: vs.listinventory();
break;
case 2: vs.listinventory();
System.out.println("Enter the name of the video you want ");
title2=sc.next(); vs.checkout(title2); break;
case 3: vs.receiverating(); break;
case 4: System.out.println("Enter the name of the video you want to return");
title2=sc.next(); vs.returnvideo(title2);
break; default:
System.out.println("invalid option ");
System.out.println("Do you want to repeat yes/no"); b=sc.next();
```

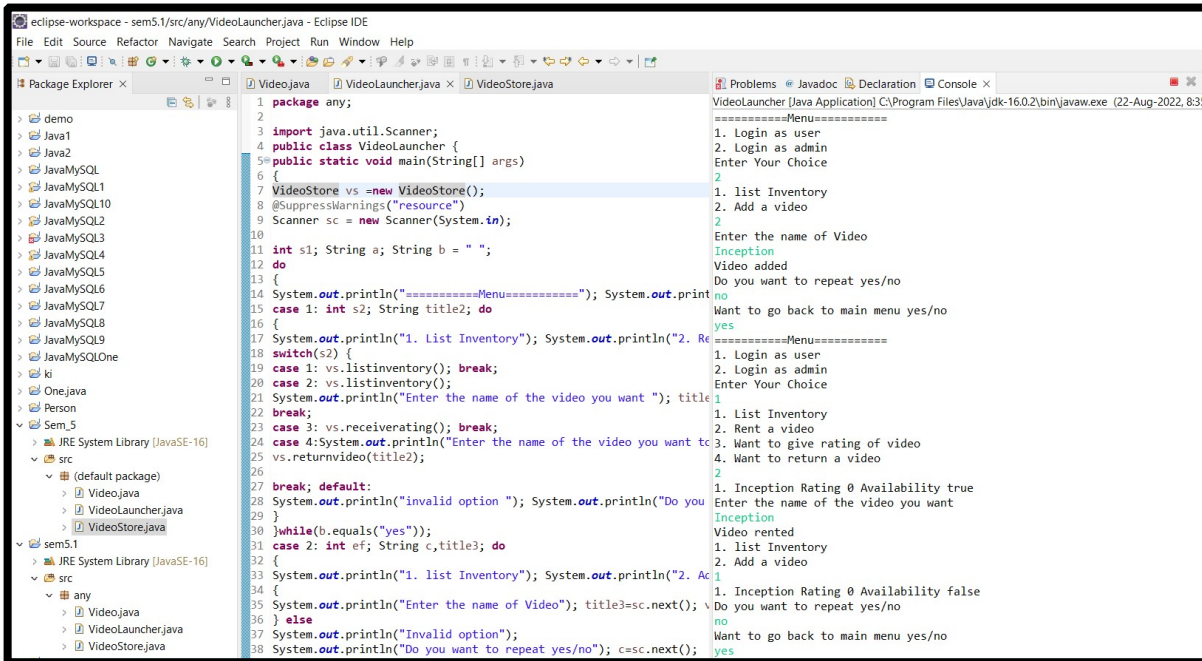
```
}  
}while(b.equals("yes")); case  
2: int ef; String c,title3; do  
{  
System.out.println("1. list Inventory"); System.out.println("2. Add a video "); ef=sc.nextInt();  
if(ef==1) vs.listinventory(); else if(ef==2)  
{  
System.out.println("Enter the name of Video"); title3=sc.next(); vs.addvideo(title3); }  
else  
System.out.println("Invalid option");  
System.out.println("Do you want to repeat yes/no"); c=sc.next();  
}while(c.equals("yes"));  
}  
System.out.print("Want to go back to main menu yes/no\n"); a=sc.next(); }while(a.equals("yes"));  
}  
}
```

Class videostore-:

```
package student;  
  
import java.util.*;  
public class videostore { video v[]=new video[20]; int  
i=0;  
Scanner sc=new Scanner(System.in); public void addvideo(String title) {  
v[i]=new video(); v[i].title=title; i++;  
System.out.println("Video added");  
}  
public void checkout(String title)  
{  
for(int k=0;k<i;k++)  
{  
if(v[k].title.equals(title))
```

```
{ if(v[k].checked()) v[k].rent();
System.out.println("Video rented
");
}}
}
public void returnvideo(String title)
{
for(int j=0;j<i;j++)
{
if(v[j].title.equals(title))
{
v[j].returned();
System.out.print("Video returned\n");
}}
}
public void receiverating()
{
for(int j=0;j<i;j++)
{
System.out.println("Enter the rating for movie"
+v[j].title); v[j].rating=sc.nextInt();
}}
public void listinventory()
{
for(int j=0;j<i;j++)
System.out.println((j+1)+" "+v[j].title+" Rating "+v[j].getrating()+" Availability "+v[j].checked); }
```

OUTPUT:



```

1 package any;
2
3 import java.util.Scanner;
4 public class VideoLauncher {
5     public static void main(String[] args)
6     {
7         VideoStore vs = new VideoStore();
8         @SuppressWarnings("resource")
9         Scanner sc = new Scanner(System.in);
10
11         int s1; String a; String b = " ";
12         do
13         {
14             System.out.println("=====Menu====="); System.out.println("1. Login as user"); System.out.println("2. Login as admin"); System.out.println("Enter Your Choice");
15             case 1: int s2; String title2; do
16             {
17                 System.out.println("1. List Inventory"); System.out.println("2. Rent a video"); System.out.println("3. Want to give rating of video"); System.out.println("4. Want to return a video"); System.out.println("Enter the name of the video you want "); title2 = sc.next();
18                 switch(s2) {
19                     case 1: vs.listInventory(); break;
20                     case 2: vs.listInventory(); break;
21                     case 3: vs.receiveRating(); break;
22                     case 4: System.out.println("Enter the name of the video you want to return "); title3 = sc.next(); vs.returnVideo(title3);
23                 }
24             } while(b.equals("yes"));
25             System.out.println("Do you want to repeat yes/no");
26             b = sc.next();
27         } break; default:
28             System.out.println("invalid option "); System.out.println("Do you want to go back to main menu yes/no"); a = sc.next();
29         } while(b.equals("yes"));
30     } case 2: int ef; String c, title3; do
31     {
32         System.out.println("1. list Inventory"); System.out.println("2. Add a video"); System.out.println("3. Want to give rating of video"); System.out.println("4. Want to return a video"); System.out.println("Enter the name of Video"); title3=sc.next();
33     } else
34     {
35         System.out.println("Invalid option");
36     }
37     System.out.println("Do you want to repeat yes/no"); c=sc.next();
38     System.out.println("Do you want to repeat yes/no"); c=sc.next();

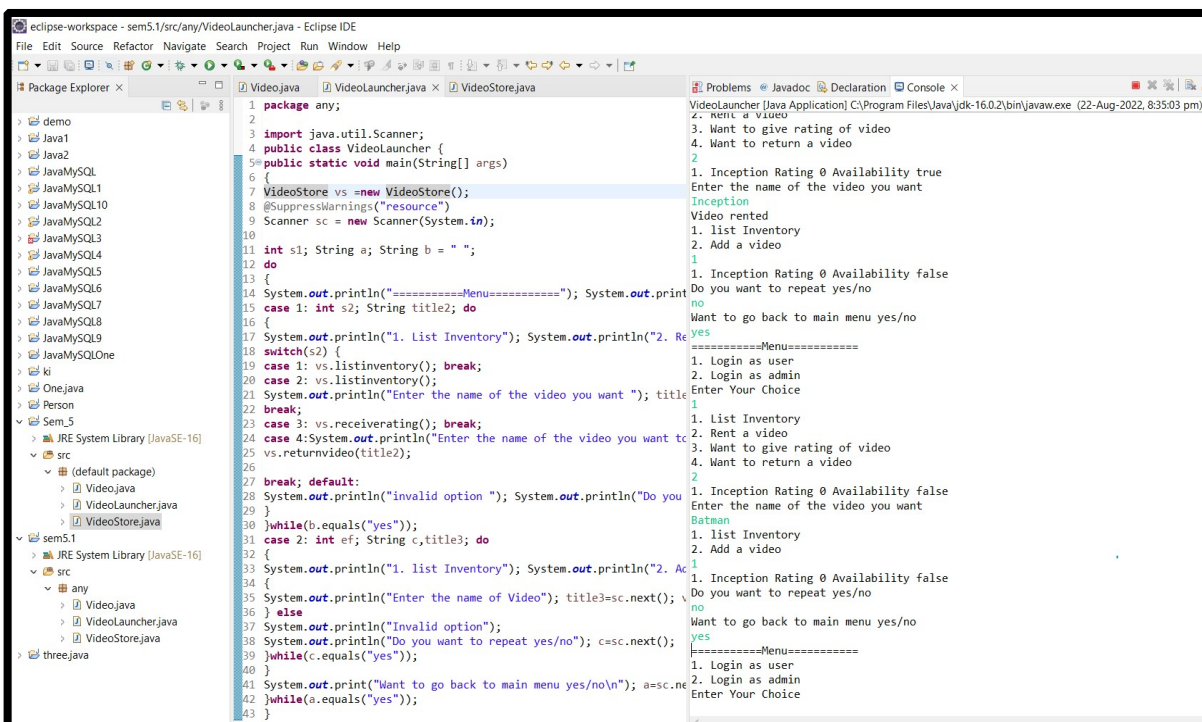
```

Console Output:

```

=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice
1
1. List Inventory
2. Add a video
Enter the name of Video
Inception
Video added
Do you want to repeat yes/no
no
Want to go back to main menu yes/no
yes
=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice
1
1. List Inventory
2. Rent a video
3. Want to give rating of video
4. Want to return a video
Enter the name of the video you want
Inception
Video rented
1. list Inventory
2. Add a video
1
1. Inception Rating 0 Availability true
Enter the name of the video you want
Inception
Video rented
1. list Inventory
2. Add a video
1
1. Inception Rating 0 Availability false
Do you want to repeat yes/no
no
Want to go back to main menu yes/no
yes
=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice
1
1. List Inventory
2. Rent a video
3. Want to give rating of video
4. Want to return a video
Enter the name of the video you want
Batman
1. list Inventory
2. Add a video
1
1. Inception Rating 0 Availability false
Do you want to repeat yes/no
no
Want to go back to main menu yes/no
yes
=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice

```



```

1 package any;
2
3 import java.util.Scanner;
4 public class VideoLauncher {
5     public static void main(String[] args)
6     {
7         VideoStore vs = new VideoStore();
8         @SuppressWarnings("resource")
9         Scanner sc = new Scanner(System.in);
10
11         int s1; String a; String b = " ";
12         do
13         {
14             System.out.println("=====Menu====="); System.out.println("1. Login as user"); System.out.println("2. Login as admin"); System.out.println("Enter Your Choice");
15             case 1: int s2; String title2; do
16             {
17                 System.out.println("1. List Inventory"); System.out.println("2. Rent a video"); System.out.println("3. Want to give rating of video"); System.out.println("4. Want to return a video"); System.out.println("Enter the name of the video you want "); title2 = sc.next();
18                 switch(s2) {
19                     case 1: vs.listInventory(); break;
20                     case 2: vs.listInventory(); break;
21                     case 3: vs.receiveRating(); break;
22                     case 4: System.out.println("Enter the name of the video you want to return "); title3 = sc.next(); vs.returnVideo(title3);
23                 }
24             } while(b.equals("yes"));
25             System.out.println("Do you want to repeat yes/no");
26             b = sc.next();
27         } break; default:
28             System.out.println("invalid option "); System.out.println("Do you want to go back to main menu yes/no"); a = sc.next();
29         } while(b.equals("yes"));
30     } case 2: int ef; String c, title3; do
31     {
32         System.out.println("1. list Inventory"); System.out.println("2. Add a video"); System.out.println("3. Want to give rating of video"); System.out.println("4. Want to return a video"); System.out.println("Enter the name of Video"); title3=sc.next();
33     } else
34     {
35         System.out.println("Invalid option");
36     }
37     System.out.println("Do you want to repeat yes/no"); c=sc.next();
38     System.out.println("Do you want to repeat yes/no"); c=sc.next();
39     while(c.equals("yes"));
40 }
41 System.out.println("Want to go back to main menu yes/no\n"); a=sc.next();
42 while(a.equals("yes"));
43 }

```

Console Output:

```

2. rent a video
3. Want to give rating of video
4. Want to return a video
1
1. Inception Rating 0 Availability true
Enter the name of the video you want
Inception
Video rented
1. list Inventory
2. Add a video
1
1. Inception Rating 0 Availability false
Do you want to repeat yes/no
no
Want to go back to main menu yes/no
yes
=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice
1
1. List Inventory
2. Rent a video
3. Want to give rating of video
4. Want to return a video
Enter the name of the video you want
Batman
1. list Inventory
2. Add a video
1
1. Inception Rating 0 Availability false
Do you want to repeat yes/no
no
Want to go back to main menu yes/no
yes
=====Menu=====
1. Login as user
2. Login as admin
Enter Your Choice

```