

CHANDIGARH UNIVERSITY
UNIVERSITY INSTITUTE OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



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Subject Name	Project based learning in Java lab		
Subject Code	20CSP-321		
Branch	Computer Science		
Semester	5 th Semester		

LAB INDEX

Sr. No.	Program	Date	Evaluation				Sign.
			LW (12)	VV (10)	FW (8)	Total (30)	
01.	Design and implement a simple inventory control system for a small video rental store.	24/08/2022					

Experiment Title - 02

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Branch: CSE

Section/Group: 616 'B'

Semester: 5th

Date of Performance: 24/08/2022

Subject Name: Project based learning in Java lab

Subject Code: 20CSP-321

1. Aim

Design and implement a simple inventory control system for a small video rental store.

2. Software Requirements: Eclipse IDE

3. Code

```
package exp.two;

import java.util.Scanner;

public class VideoLaunch {
    public static void main(String[] args) {

        VideoStore obj = new VideoStore();
        int choice;
        String videoName;
        int rating;
        boolean status = true;
        while (status) {
            System.out.println();
            System.out.println("MAIN MENU");
            System.out.println("*****");
            System.out.println("1. Add Videos");
            System.out.println("2. Check Out Videos");
            System.out.println("3. Return Videos");
            System.out.println("4. Receive Rating");
```

```
System.out.println("5. List Inventory");
System.out.println("6. Exit");
System.out.println();
System.out.print("Enter your choice: ");
Scanner sc = new Scanner(System.in);
choice = sc.nextInt();
switch (choice) {
case 1: {
    System.out.print("Enter the name of the video you want to add: ");
    videoName = sc.next();
    obj.addVideo(videoName);
    break;
}

case 2: {
    System.out.print("Enter the name of video to checkout: ");
    videoName = sc.next();
    obj.doCheckOut(videoName);
    break;
}

case 3: {
    System.out.print("Enter the video name to return: ");
    videoName = sc.next();
    obj.doReturn(videoName);
    break;
}

case 4: {
    System.out.print("Enter the name of video you want to rate: ");
    videoName = sc.next();
    System.out.print("Enter the Ratings for this video: ");
    rating = sc.nextInt();
    obj.receiveRating(videoName, rating);
    break;
}

case 5: {
    obj.listInventory();
    break;
}

case 6: {
    System.out.println("Exiting...!! Thanks for using the application!");
    obj.exit();

    break;
}

default: {
```

```
        System.out.println("Wrong input!!");
    }
}
}
```

```
class Video {
    String videoName;
    boolean checkOut;
    int rating;

    String getName() {
        return videoName;
    }

    void doCheckOut() {
        checkOut = true;
    }

    void doReturn() {
        checkOut = false;
    }

    void receiveRating(int rating) {
        this.rating = rating;
    }

    int getRating() {
        return rating;
    }

    boolean getCheckOut() {
        return checkOut;
    }

    public Video(String videoName) {
        this.videoName = videoName;
    }
}
```

```
class VideoStore {
```

```
Video store[] = new Video[20];
static int a = 0;

void addVideo(String name) {
    store[a] = new Video(name);
    store[a].checkOut = false;
    store[a].receiveRating(0);
    System.out.println("Video " + name + " added sucessfully!");
    a++;
}

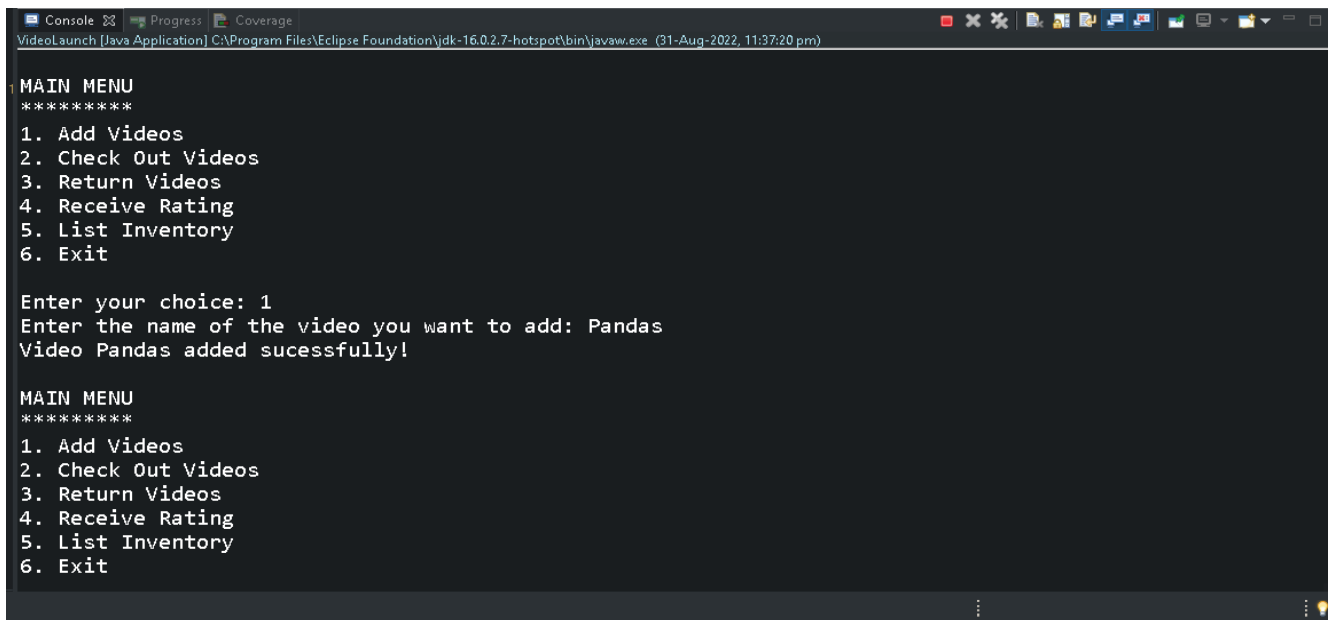
void doCheckOut(String name) {
    for (int i = 0; i < a; i++) {
        if (store[i].getName().equals(name)) {
            store[i].doCheckOut();
            System.out.println("Video " + name + " removed successfully from " + i + "
location");
        } else {
            System.out.println("No such video exists at:" + i + " location");
        }
    }
}

void doReturn(String name) {
    for (int i = 0; i < a; i++) {
        if (store[i].getName().equals(name)) {
            store[i].doReturn();
            System.out.println("Video returned: " + name + " from location " + i + ".");
        } else {
            System.out.println("No such video exists at locations: " + i);
        }
    }
}

void receiveRating(String name, int rating) {
    for (int i = 0; i < a; i++) {
        if (store[i].getName().equals(name)) {
            store[i].receiveRating(rating);
        }
    }
    System.out.println("Ratings " + rating + " has been mapped to the video: " + name + ".");
}
```

```
void listInventory() {  
  
    for (int i = 0; i < a; i++) {  
        if (!store[i].getCheckOut()) {  
            System.out.print("Videos (location " + i + "): " + store[i].videoName);  
            System.out.print(" Ratings (location " + i + "): " + store[i].getRating() + "\n");  
        }  
    }  
}  
  
public void exit() {  
    System.exit(0);  
}  
}
```

4. Output



```
Console | Progress | Coverage  
VideoLaunch [Java Application] C:\Program Files\Eclipse Foundation\jdk-16.0.2.7-hotspot\bin\javaw.exe (31-Aug-2022, 11:37:20 pm)  
  
MAIN MENU  
*****  
1. Add Videos  
2. Check Out Videos  
3. Return Videos  
4. Receive Rating  
5. List Inventory  
6. Exit  
  
Enter your choice: 1  
Enter the name of the video you want to add: Pandas  
Video Pandas added sucessfully!  
  
MAIN MENU  
*****  
1. Add Videos  
2. Check Out Videos  
3. Return Videos  
4. Receive Rating  
5. List Inventory  
6. Exit
```

```
VideoLaunch [Java Application] C:\Program Files\Eclipse Foundation\jdk-16.0.2-hotspot\bin\javaw.exe (31-Aug-2022, 11:37:20 pm)
Enter your choice: 3
Enter the video name to return: Hello
No such video exists at locations: 0

MAIN MENU
*****
1. Add Videos
2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

Enter your choice: 3
Enter the video name to return: Pandas
Video returned: Pandas from location 0.

MAIN MENU
*****
1. Add Videos
2. Check Out Videos
3. Return Videos
```

```
VideoLaunch [Java Application] C:\Program Files\Eclipse Foundation\jdk-16.0.2-hotspot\bin\javaw.exe (31-Aug-2022, 11:37:20 pm)
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

Enter your choice: 4
Enter the name of video you want to rate: Pandas
Enter the Ratings for this video: 3
Ratings 3 has been mapped to the video: Pandas.

MAIN MENU
*****
1. Add Videos
2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

Enter your choice: 5
Videos (location 0): Pandas Ratings (location 0): 3
```



```
Console | Progress | Coverage
VideoLaunch [Java Application] C:\Program Files\Eclipse Foundation\jdk-16.0.2.7-hotspot\bin\javaw.exe (31-Aug-2022, 11:37:20 pm)
```

```
Videos (location 0): Pandas   Ratings (location 0): 3
```

```
MAIN MENU
```

```
*****
```

1. Add Videos
2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

```
Enter your choice: 2
```

```
Enter the name of video to checkout: Pandas
```

```
Video Pandas removed successfully from 0 location
```

```
MAIN MENU
```

```
*****
```

1. Add Videos
2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

```
Console | Progress | Coverage
<terminated> VideoLaunch [Java Application] C:\Program Files\Eclipse Foundation\jdk-16.0.2.7-hotspot\bin\javaw.exe (31-Aug-2022, 11:37:20 pm - 11:44:15 pm)
```

2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

```
Enter your choice: 2
```

```
Enter the name of video to checkout: Pandas
```

```
Video Pandas removed successfully from 0 location
```

```
MAIN MENU
```

```
*****
```

1. Add Videos
2. Check Out Videos
3. Return Videos
4. Receive Rating
5. List Inventory
6. Exit

```
Enter your choice: 6
```

```
Exiting...!! Thanks for using the application!
```