

**CHANDIGARH UNIVERSITY  
UNIVERSITY INSTITUTE OF ENGINEERING  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



Submitted By: <b>Rajiv Paul</b>		Submitted To: <b>Kirat Kaur</b>	
<b>Subject Name</b>	Project Based Learning in Java Lab		
<b>Subject Code</b>	20CSP-321		
<b>Branch</b>	BE-CSE		
<b>Semester</b>	5 <sup>th</sup>		

## LAB INDEX

NAME: Rajiv Paul

SUBJECT NAME: Project Based Learning in Java Lab

UID: 20BCS1812

SUBJECTCODE: 20CSP-321

SECTION: 702(A)

Sr. No	Program	Date	Evaluation				Sign
			LW (12)	VV (8)	FW (10)	Total (30)	
1.	Create an application to save the employees information using arrays.						
2.	Design and implement a simple inventory control system for a small video rental store						
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

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## Experiment 2

**Student Name:** Rajiv Paul

**UID:** 20BCS1812

**Branch:** CSE

**Section/Group:** 702-A

**Semester:** 5th Semester

**Date of Performance:** 26/08/2022

**Name:** PBLJ LAB

**Subject Code:** 20CSP-321

### 1. Aim:

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

### 2. Requirements:

#### Software:

IntelliJ IDEA, JDK

#### Hardware:

Macbook(Laptop)

Ram:4GB(Minimum)

Processor: M1

### 3. Steps for experiment/practical/Code:

```
package com.PBLJ;
import java.util.*;

class Video {
    public boolean checked = true;
    int avgrating;
    public String title;
    public boolean checked() {
        return checked;
    }
    public void rent() {
        checked = false;
    }
}

class VideoStore extends Video {
    Video[] v = new Video[10];
    static int i = 0;
    void addVideo(String title) {
        v[i] = new Video();
        v[i].title = title;
        i++;
        System.out.println("Video "+title+" Added Successfully");
    }
    void checkOut(String title) {
        for (int k = 0; k < i; k++) {
            if (v[k].title.equalsIgnoreCase(title)) {
                if (v[k].checked()) {
                    v[k].rent();
                    System.out.println("Video is rented");
                } else {
                    System.out.println("Sorry Video not available");
                }
            }
        }
    }

    public void receiveRating() {
        if (i == 0) {
            System.out.println("No Video inInventory");
        }
    }
}
```

```
} else {
    for (int k = 0; k < i; k++) {
        System.out.println("Enter the rating for movie " + v[k].title);
        Scanner ob = new Scanner(System.in);
        v[k].avgrating = ob.nextInt();
    }
}
}
}
public void listInventory() {
    if (i == 0) {
        System.out.println("No Video in Inventory");
    } else {
        for (int k = 0; k < i; k++) {
            System.out.println(k + 1 + ". " + v[k].title + " " +
                "\n Rating: " + v[k].avgrating + "\n Availability: " + v[k].checked());
        }
    }
}
}
}
class VideoStoreLauncher {
    public static void main(String[] args) {
        VideoStore vs = new VideoStore();
        int ch, uCh, aCh;
        String title, choice;
        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");
            Scanner s = new Scanner(System.in);
            ch = s.nextInt();
            do {
                switch (ch) {
                    case 1 -> {
                        System.out.println("1. List Inventory");
                        System.out.println("2. Rent Video");
                        System.out.println("3. Enter the rating of Video");
                        System.out.println("4. Return Video");
                        uCh = s.nextInt();
                        if (uCh == 1) {
                            vs.listInventory();
                        }
                    }
                }
            } while (ch != 0);
        } while (ch != 0);
    }
}
```

```
        } else if (uCh == 2) {
            vs.listInventory();
            System.out.println("Enter the video Name you want");
            title = s.next();
            vs.checkOut(title);
        } else if (uCh == 3) {
            vs.receiveRating();
        } else if (uCh == 4) {
            vs.rent();
        } else {
            System.out.println("No such Option is available");
        }
    }
    case 2 -> {
        System.out.println("1. List Inventory");
        System.out.println("2. Add Video");
        aCh = s.nextInt();
        if (aCh == 1) {
            vs.listInventory();
        }
        if (aCh == 2) {
            System.out.println("Enter the name of Video");
            title = s.next();
            vs.addVideo(title);
        }
    }
    default -> System.out.println("Sorry Wrong Choice");
}
System.out.println("Do you want to repeat yes/no");
choice = s.next();
}
while (choice.equalsIgnoreCase("yes"));
System.out.println("Want to Return to main Menu yes/no");
choice = s.next();
}
while (choice.equalsIgnoreCase("yes"));
}
}
```

#### 4. Result/Output/Writing Summary:

```
=====Menu=====
1. Login as User
2. Login as Admin
Enter Your Choice
2
1. List Inventory
2. Add Video
2
Enter the name of Video
The_Matrix
Video The_Matrix Added Successfully
Do you want to repeat yes/no
yes
1. List Inventory
2. Add Video
2
Enter the name of Video
KGF
Video KGF Added Successfully
Do you want to repeat yes/no
yes
1. List Inventory
2. Add Video
2
Enter the name of Video
GodFather
Video GodFather Added Successfully
```

=====Menu=====

1. Login as User

2. Login as Admin

Enter Your Choice

1

1. List Inventory

2. Rent Video

3. Enter the rating of Video

4. Return Video

1

1. The\_Matrix

Rating: 0

Availability: true

2. KGF

Rating: 0

Availability: true

3. GodFather

Rating: 0

Availability: true

Do you want to repeat yes/no



yes

1. List Inventory
2. Rent Video
3. Enter the rating of Video
4. Return Video

3

Enter the rating for movie The\_Matrix

4

Enter the rating for movie KGF

5

Enter the rating for movie GodFather

3

1. List Inventory
2. Rent Video
3. Enter the rating of Video
4. Return Video

1

1. The\_Matrix

Rating: 4

Availability: true

2. KGF

Rating: 5

Availability: true

3. GodFather

Rating: 3

Availability: true

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**Learning outcomes (What I have learnt):**

- 1. Learnt about classes and its methods.**
- 2. Learnt how to use classes and its methods.**
- 3.**
- 4.**
- 5.**