Experiment 1.2

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1. Aim/Overview of the practical: Video Rental System

2. Software/Hardware Requirements:

- **Laptop with Java installed**
- **Eclipse IDE**

3. Steps for experiment/practical/Code:

```
package newp;

import java.util.Scanner;

class Video
{
    String title;
    Boolean flag = false;
    int rating = 0;
    int sum[]= {0};
    int avg =0;

}
class VideoStore
{
    Video[] v = new Video[10];

    int i = 5;
    void currentInventory(){
       v[0] = new Video();
         v[0].title = "Avengers";
         v[1] = new Video();
         v[1].title = "Interstellar";
         v[2] = new Video();
         v[2].title = "Squid Games";
         v[3] = new Video();
         v[3].title = "Spiderman: Homecoming";
         v[4] = new Video();
         v[4].title = "Thor: Love and Thunder";

    }
    void addVideo(String title)
```

```
{
    v[i] = new Video();
    v[i].title = title;
    i++;
    System.out.println(title+" Succesfully added to video store");
}

void checkOut(String title)
{
    Boolean checked_out = false;
    for (int j = 0; j < i; j++)
    {
        if (v[j].title.equals(title) && v[j].flag == false)
        {
            v[j].flag = true;
            checked_out = true;
        }
    }
    if (checked_out == false)
    {
        System.out.println("Sorry the video is unavailable");
    }
    else
    {
        System.out.println("Thank you, enjoy watching " + title);
    }
}

void returnVideo(String title)
{
    boolean check_return = true;
    for (int k = 0; k < i; k++)
    {
        if (v[k].title.equals(title) && v[k].flag)
        {
            v[k].flag = false;
            System.out.println("Thank you for renting.");
            check_return= false;
        }
    }
    if (check_return)
    {
        System.out.println("This video wasn't checked out.");
    }
}

void receiveRating(String title, int point)
{
    boolean present = false;
    for (int l = 0; l < i; l++)
    {
        if (v[l].title.equals(title))
        {
        if (v[l].title.equals(title))
```

```
                {
                    v[l].rating = point;
                    present = true;
                }
            }
        }

        if (!present)
        {
            System.out.println("This video is unavailable to be rated.");
        }
    }

    void listInventory()
    {
        int serial = 1;
        for (int m = 0; m < i; m++)
        {
            if (!v[m].flag)
            System.out.println(serial++ + ". Video: " + v[m].title + "; Rating: " +
v[m].rating);
        }
    }
}

class Launcher
{
    public static void main(String[] args)
    {
        int menu = 1;
        VideoStore vs = new VideoStore();
        vs.currentInventory();
        while (menu != 0)
        {
            System.out.println("\n1. Add Video\n2. Check Out\n3. Return Video\n4. Rate
Video\n5. Video List\n6. Exit");
            Scanner sc=new Scanner(System.in);
            System.out.println("Enter menu: ");
            menu = sc.nextInt();
            switch (menu)
            {
                case 1:
                {
                    System.out.println("Add video: ");
                    sc.nextLine();
                    String title = sc.nextLine();
                    vs.addVideo(title);
                    break;
                }
                case 2:
                {
                    System.out.println("Video: ");
                    sc.nextLine();
                    String title = sc.nextLine();
```

```
                    vs.checkOut(title);
                    break;
                }
                case 3:
                {
                    System.out.println("Title: ");
                    sc.nextLine();
                    String title = sc.nextLine();
                    vs.returnVideo(title);
                    break;
                }
                case 4:
                {
                    System.out.println("Title: ");
                    sc.nextLine();
                    String title = sc.nextLine();
                    System.out.println("Rating: ");
                    int points = sc.nextInt();
                    while (1 > points || points > 5)
                    {
                        System.out.println("Rate between 1 to 5: ");
                        points = sc.nextInt();
                    }
                    vs.receiveRating(title, points);
                    break;
                }
                case 5:
                {
                    vs.listInventory();
                    break;
                }
                case 6:
                {
                    System.out.println("Thank you, visit again!");
                    menu = 0;
                    break;
                }
            }
        }
    }
}
```

4. Result/Output/Writing Summary:

```
1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
1
Add video:
The Matrix
The Matrix Succesfully added to video store

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
1
Add video:
Godfather II
Godfather II Succesfully added to video store

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
```

```
Enter menu:
2
Video:
Godfather II
Thank you, enjoy watching Godfather II

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
3
Title:
Godfather II
Thank you for renting.

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
4
Title:
Godfather II
Rating:
4
```

```
Godfather II
Rating:
4

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
5
1. Video: Avengers; Rating: 0
2. Video: Interstellar; Rating: 0
3. Video: Squid Games; Rating: 0
4. Video: Spiderman: Homecoming; Rating: 0
5. Video: Thor: Love and Thunder; Rating: 0
6. Video: The Matrix; Rating: 0
7. Video: Godfather II; Rating: 4

1. Add Video
2. Check Out
3. Return Video
4. Rate Video
5. Video List
6. Exit
Enter menu:
6
Thank you, visit again!
```

Learning outcomes (What I have learnt):

1. **Learnt about basic concepts of Java like switch-case.**
2. **Learnt about array data structure.**
3. **Learnt about accessing data from other classes.**
4. **Learnt about the concepts of object oriented programming.**