



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment 2

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Semester: 6th **DOP:** 16.01.25
Subject: Java **Subject Code:** 22CSH-359

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

Objective: To develop a functional application that effectively utilizes to store, manage, and retrieve video information, enabling efficient data organization and manipulation within the application.

Algorithm:

- Start the program.
 - Define an function to store video information.
 - Each structure will include fields such as movie name, rental period, stock available.
1. **Add movie Information:**
 2. **Display All Movie Information:**
 3. **Search for an Movie:**
 4. **Exit Application**

Code:

```
import java.util.HashMap;
import java.util.Map; import
java.util.Scanner;

public class VideoRentalStore {

    // Simple representation of a movie in the inventory
    static class Movie {      String title;
        int quantity;

        Movie(String title, int quantity) {
            this.title = title;
            this.quantity = quantity;
        }
    }

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        Map<String, Movie> inventory = new HashMap<>();
```



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```
boolean running = true;

while (running) {
    System.out.println("\nVideo Rental Store");
    System.out.println("1. Add Movie");
    System.out.println("2. Rent Movie");
    System.out.println("3. Check Movie Availability");
    System.out.println("4. Exit");
    System.out.print("Enter your choice: ");

    int choice = scanner.nextInt();
    scanner.nextLine(); // Consume newline

    switch (choice) {
        case 1: // Add Movie
            System.out.print("Enter movie title: ");
            String titleToAdd = scanner.nextLine();
            System.out.print("Enter quantity: ");          int
            quantityToAdd = scanner.nextInt();
            inventory.put(titleToAdd, new Movie(titleToAdd, quantityToAdd));
            System.out.println("Movie added: " + titleToAdd);
            break;

            case 2: // Rent Movie
                System.out.print("Enter movie title to rent: ");
                String titleToRent = scanner.nextLine();          if
                (inventory.containsKey(titleToRent)) {
                    Movie movie = inventory.get(titleToRent);
                    if (movie.quantity > 0) {
                        movie.quantity--;
                        System.out.println("Successfully rented: " + titleToRent);
                    } else {
                        System.out.println("Sorry, " + titleToRent + " is unavailable.");
                    }
                } else {
                    System.out.println("Movie not found.");
                }
            break;

            case 3: // Check Movie Availability
                System.out.print("Enter movie title to check: ");
                String titleToCheck = scanner.nextLine();          if
                (inventory.containsKey(titleToCheck)) {
                    Movie movie = inventory.get(titleToCheck);
                    System.out.println("Available copies of " + titleToCheck + ": " + movie.quantity);
                } else {
                    System.out.println("Movie not found.");
                }
            break;

            case 4: // Exit
                running = false;
                System.out.println("Exiting...");
            }
    }
}
```



```
break;
```

```
default:
```

```
    System.out.println("Invalid choice. Try again.");
```

```
    }
```

```
}
```

```
scanner.close();
```

```
}
```

Output

```
Enter your choice: 1
Enter movie title: Lolipop
Enter quantity: 5
Movie added: Lolipop

Video Rental Store
1. Add Movie
2. Rent Movie
3. Check Movie Availability
4. Exit
Enter your choice: 1
Enter movie title: YJHW
Enter quantity: 5
Movie added: YJHW

Video Rental Store
1. Add Movie
2. Rent Movie
3. Check Movie Availability
4. Exit
Enter your choice: 3
Enter movie title to check: YJHW
Available copies of YJHW: 5

Video Rental Store
1. Add Movie
2. Rent Movie
3. Check Movie Availability
4. Exit
```

Learning Outcomes:

1. Demonstrate: Apply key concepts to real-world scenarios to showcase understanding.
2. Analyze: Critically evaluate information, identify patterns, and draw meaningful conclusions.
3. Create: Develop original work, including presentations, reports, or projects, to exhibit comprehension and skills.
4. Communicate: Convey ideas and findings effectively through oral and written communication.
5. Collaborate: Contribute to group projects and exhibit strong teamwork capabilities in a collaborative environment.