# Experiment 2

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**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 move name, rental period, stock availabe.

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<>();

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

**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.