

# Video DVD Rental Management System

The Video DVD Rental Management System is a web-based application designed to streamline and manage the daily operations of a DVD rental store. Built using JavaScript, HTML, and CSS, this system provides a comprehensive platform for store managers to efficiently manage DVDs, categorize collections, and oversee member activities. The primary goal of this project is to enhance the functionality of traditional rental stores by leveraging modern web technologies to deliver a user-friendly and effective management tool.

## Key Features

### 1. DVD Management by Manager

- **Add or Remove DVDs:** Managers have the authority to add new DVDs to the store's inventory or remove existing ones. This feature ensures that the store's collection is always up-to-date and relevant.
- **Categorize DVDs:** DVDs can be categorized based on various criteria such as genre, director, release date, and more. This categorization aids in easy navigation and retrieval of DVDs by both managers and customers.

### 2. Inventory Management

- **Multiple Copies:** The system supports the addition of multiple copies of the same DVD. This feature is crucial for stores that need to manage large volumes of DVDs and ensure that multiple customers can rent the same title simultaneously.

### 3. Customer Registration and Management

- **Registration:** Customers are required to register with their UniqueNo. This ensures a unique identifier for each customer, simplifying the process of tracking rental history and managing customer information.
- **User Profile Management:** Customers can view and update their personal information, check their rental history, and see the status of DVDs they have rented.

### 4. DVD Renting and Return

- **Renting DVDs:** Customers can rent DVDs for a period of one week. The system keeps track of the rental date and automatically calculates the due date.
- **Overdue Alerts:** If a customer fails to return a DVD within the specified one-week period, the system generates an alert for the manager. This feature ensures that DVDs are returned on time and helps maintain the store's inventory.
- **Return Processing:** When a customer returns a DVD, the system updates the rental section to reflect the return. This includes marking the DVD as available for renting again and removing it from the customer's active rented DVDs list.

### 5. Reports

- **Inventory Report:** Provides a detailed overview of all DVDs in the store, including their categories and availability.
- **Rental Report:** Tracks the rental history, overdue DVDs, and frequently rented DVDs.
- **Customer Report:** Lists all registered customers and their rental activities.

## User Roles

### 1. Manager

- Manage DVDs (add, remove, categorize).
- View and manage customer information.
- **Oversee renting and return processes.**
- Generate and view reports.
- **Must be allowed to update return DVD status.**

### 2. Customer

- Register and manage their profile.
- **Rent request for DVDs.**
- View rental history and status of rented DVDs.

## Technical Overview

The Video DVD Rental Management System is developed using a combination of JavaScript, HTML, and CSS. To ensure simplicity and ease of use, the system is designed to work entirely on the client side, utilizing local storage for data persistence. This approach eliminates the need for a server-side backend, making it ideal for small to medium-sized rental stores.

- **JavaScript:** Manages the core functionality, including event handling, DOM manipulation, and interaction with local storage. JavaScript is used to perform all operations such as adding/removing DVDs, updating categories, and managing customer data.
- **HTML:** Structures the content and elements of the web pages.
- **CSS:** Enhances the appearance and layout, providing a consistent and user-friendly design across different devices and screen sizes.
- **Local Storage:** Utilized for data persistence, local storage ensures that all data (DVDs, customers, rental records) is saved directly in the user's browser. This enables the application to retain data between sessions without requiring a server-side database.

## Conclusion

The Video DVD Rental Management System offers a robust solution for managing the diverse needs of a DVD rental store. By integrating essential features such as DVD management, customer registration, and rental processes, it simplifies the day-to-day operations for managers while providing a seamless experience for customers. The addition of comprehensive reporting capabilities enhances the system's utility by providing valuable insights into inventory, rental trends, and customer activities. This project represents a significant step towards digitizing rental management and improving the overall efficiency and accessibility of rental services.