Ticket booking

**package** jan.java;

**import** java.util.Scanner;

**class** MovieManager {

**private** **static** **final** String[][] ***movieList*** = {

{"bigil", "Endgame"},

{"Leo", "Skull Island"},

{"kabali", "The Revenant"}

};

**static** **void** displayMovies() {

System.***out***.println("\n--- Available Movies ---");

**for** (**int** i = 0; i < ***movieList***.length; i++) {

System.***out***.println((i + 1) + ". " + ***movieList***[i][0]);

}

}

**static** String getSelectedMovie() {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.print("Enter your choice (1-" + ***movieList***.length + "): ");

**int** movieChoice = scanner.nextInt();

**if** (movieChoice > 0 && movieChoice <= ***movieList***.length) {

**return** ***movieList***[movieChoice - 1][0];

} **else** {

System.***out***.println("Invalid movie selection.");

**return** **null**;

}

}

**static** **char**[][] getSelectedSeatsArray(String selectedMovie) {

**switch** (selectedMovie) {

**case** "bigil":

**return** camerarent.*avengersSeats*;

**case** "Leo":

**return** camerarent.*kongSeats*;

**case** "kabali":

**return** camerarent.*leonardoSeats*;

**default**:

**return** **null**;

}

}

}

**public** **class** camerarent {

**private** **static** **final** String ***FRONT\_DESK\_PASSWORD*** = "admin123";

**private** **static** **boolean** *isLoggedIn* = **false**;

**private** **static** String *currentUsername*;

**private** **static** **final** **int** ***NUM\_ROWS*** = 5;

**private** **static** **final** **int** ***NUM\_COLS*** = 10;

**static** **char**[][] *avengersSeats* = **new** **char**[***NUM\_ROWS***][***NUM\_COLS***];

**static** **char**[][] *kongSeats* = **new** **char**[***NUM\_ROWS***][***NUM\_COLS***];

**static** **char**[][] *leonardoSeats* = **new** **char**[***NUM\_ROWS***][***NUM\_COLS***];

**private** **static** String *selectedMovie*;

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.println("Welcome to Movie Ticket Booking!");

// Authentication

System.***out***.print("\nEnter Username: ");

String username = scanner.nextLine();

System.***out***.print("Enter Password: ");

String password = scanner.nextLine();

**if** (*authenticate*(username, password)) {

*isLoggedIn* = **true**;

*currentUsername* = username;

System.***out***.println("Login Successful! Welcome, " + *currentUsername* + "!\n");

// Initialize seats for each movie

*initializeSeats*();

// Display available options

**while** (*isLoggedIn*) {

*displayMenu*();

**int** choice = *getChoice*();

**switch** (choice) {

**case** 1:

MovieManager.*displayMovies*();

**break**;

**case** 2:

*bookTicket*();

**break**;

**case** 3:

*displayBookedSeats*();

**break**;

**case** 4:

*logout*();

**break**;

**case** 5:

System.***out***.println("Exiting program. Thank you!");

System.*exit*(0);

**break**;

**default**:

System.***out***.println("Invalid choice. Please try again.");

}

}

} **else** {

System.***out***.println("Invalid credentials. Exiting program.");

}

}

**private** **static** **void** initializeSeats() {

**for** (**int** i = 0; i < ***NUM\_ROWS***; i++) {

**for** (**int** j = 0; j < ***NUM\_COLS***; j++) {

*avengersSeats*[i][j] = 'O'; // 'O' represents an available seat

*kongSeats*[i][j] = 'O';

*leonardoSeats*[i][j] = 'O';

}

}

}

**private** **static** **void** displayMenu() {

System.***out***.println("\n1. Display Available Movies");

System.***out***.println("2. Book a Ticket");

System.***out***.println("3. Display Booked Seats");

System.***out***.println("4. Logout");

System.***out***.print("Enter your choice: ");

}

**private** **static** **int** getChoice() {

Scanner scanner = **new** Scanner(System.***in***);

**return** scanner.nextInt();

}

**private** **static** **void** bookTicket() {

*selectedMovie* = MovieManager.*getSelectedMovie*();

**if** (*selectedMovie* != **null**) {

System.***out***.println("You selected: " + *selectedMovie*);

*displayAvailableSeats*();

*performTicketBooking*();

} **else** {

System.***out***.println("Movie selection failed.");

}

}

**private** **static** **void** displayAvailableSeats() {

**char**[][] selectedSeats = MovieManager.*getSelectedSeatsArray*(*selectedMovie*);

**if** (selectedSeats != **null**) {

System.***out***.println("\n--- Available Seats for " + *selectedMovie* + " ---");

System.***out***.print(" ");

**for** (**int** i = 1; i <= ***NUM\_COLS***; i++) {

System.***out***.print(i + " ");

}

System.***out***.println();

**for** (**int** i = 0; i < ***NUM\_ROWS***; i++) {

System.***out***.print((**char**) ('A' + i) + " ");

**for** (**int** j = 0; j < ***NUM\_COLS***; j++) {

System.***out***.print(selectedSeats[i][j] + " ");

}

System.***out***.println();

}

System.***out***.println("");

System.***out***.println(" ---Screen--- ");

} **else** {

System.***out***.println("No movie selected. Please select a movie first.");

}

}

**private** **static** **void** performTicketBooking() {

**char**[][] selectedSeats = MovieManager.*getSelectedSeatsArray*(*selectedMovie*);

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.print("Enter row (A-E): ");

**char** row = scanner.next().charAt(0);

**int** rowIndex = row - 'A';

System.***out***.print("Enter seat number (1-10): ");

**int** seatNumber = scanner.nextInt() - 1;

**if** (*isValidSeat*(rowIndex, seatNumber) && selectedSeats[rowIndex][seatNumber] == 'O') {

selectedSeats[rowIndex][seatNumber] = 'X'; // 'X' represents a booked seat

System.***out***.println("Ticket for " + *selectedMovie* + " booked successfully!");

} **else** {

System.***out***.println("Invalid seat or seat already booked. Please try again.");

}

}

**private** **static** **boolean** isValidSeat(**int** row, **int** seatNumber) {

**return** row >= 0 && row < ***NUM\_ROWS*** && seatNumber >= 0 && seatNumber < ***NUM\_COLS***;

}

**private** **static** **void** displayBookedSeats() {

**if** (*selectedMovie* != **null**) {

**char**[][] selectedSeats = MovieManager.*getSelectedSeatsArray*(*selectedMovie*);

System.***out***.println("\n--- Booked Seats for " + *selectedMovie* + " ---");

**for** (**int** i = 0; i < ***NUM\_ROWS***; i++) {

**for** (**int** j = 0; j < ***NUM\_COLS***; j++) {

**if** (selectedSeats[i][j] == 'X') {

System.***out***.println("\nRow: " + (**char**) ('A' + i) + ", Seat: " + (j + 1));

}

}

}

} **else** {

System.***out***.println("No movie selected. Please select a movie first.");

}

}

**private** **static** **void** logout() {

*isLoggedIn* = **false**;

System.***out***.println("Logout Successfully! Goodbye, " + *currentUsername* + "!\n");

*currentUsername* = **null**;

*selectedMovie* = **null**;

}

**private** **static** **boolean** authenticate(String username, String password) {

**final** String FRONT\_DESK\_USERNAME = "admin";

**final** String FRONT\_DESK\_PASSWORD = "admin123";

**return** username.equals(FRONT\_DESK\_USERNAME) && password.equals(FRONT\_DESK\_PASSWORD);

}

}