package OasisInfobyte;

import java.util.Scanner;

public class OnlineReservationSystem {

    private static boolean[] seats = new boolean[10]; // initialize an array of 10 seats, all empty

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        while (true) {

            // display menu

            System.out.println("\nPlease select an option:");

            System.out.println("1. View Seat Map");

            System.out.println("2. Reserve Seat");

            System.out.println("3. Cancel Reservation");

            System.out.println("4. Exit");

            // get user input

            int option = scanner.nextInt();

            switch (option) {

                case 1:

                    viewSeatMap();

                    break;

                case 2:

                    reserveSeat();

                    break;

                case 3:

                    cancelReservation();

                    break;

                case 4:

                    System.exit(0); // exit the program

                default:

                    System.out.println("Invalid option!");

            }

        }

    }

    private static void viewSeatMap() {

        System.out.println("\nCurrent Seat Map:");

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

            if (seats[i]) {

                System.out.print("X "); // print an "X" if the seat is reserved

            } else {

                System.out.print((i + 1) + " "); // print the seat number if it's empty

            }

        }

        System.out.println();

    }

    private static void reserveSeat() {

        Scanner scanner = new Scanner(System.in);

        System.out.print("\nEnter seat number (1-10): ");

        int seatNumber = scanner.nextInt();

        if (seatNumber < 1 || seatNumber > 10) {

            System.out.println("Invalid seat number!");

        } else if (seats[seatNumber - 1]) {

            System.out.println("Seat already reserved!");

        } else {

            seats[seatNumber - 1] = true; // reserve the seat

            System.out.println("Seat reserved!");

        }

    }

    private static void cancelReservation() {

        Scanner scanner = new Scanner(System.in);

        System.out.print("\nEnter seat number (1-10): ");

        int seatNumber = scanner.nextInt();

        if (seatNumber < 1 || seatNumber > 10) {

            System.out.println("Invalid seat number!");

        } else if (!seats[seatNumber - 1]) {

            System.out.println("Seat not reserved!");

        } else {

            seats[seatNumber - 1] = false; // unreserve the seat

            System.out.println("Reservation canceled!");

        }

    }

}

**# OIBSIP-Project1 : Online Reservation System**

**\_\_Oasis Infobyte Internship - Task 1 :-\_\_**

Completed Task 1 of name Online Reservation System in Java Programming language using Eclipse IDE.

Steps Required :

1. First, the code creates an array of boolean values called seats with a length of 10. Each element in the array represents a seat, and the value true indicates that the seat is reserved, while false indicates that the seat is available.

2. The main method sets up a loop that displays a menu of options to the user and gets their input. The user can choose to view the current seat map, reserve a seat, cancel a reservation, or exit the program.

3. The viewSeatMap method simply prints the current state of the seats array to the console, with an "X" indicating a reserved seat and the seat number indicating an available seat.

4. The reserveSeat method prompts the user to enter a seat number, checks if the input is valid, and if the seat is available, sets the corresponding element in the seats array to true to reserve the seat.

5. The cancelReservation method works similarly to the reserveSeat method, but instead sets the corresponding element in the seats array to false to cancel the reservation