using System;

namespace OnlineHotelReservation

{

class Program

{

static string[,] hotelRooms = new string[10, 5];

static int totalRooms = hotelRooms.Length;

static int availableRooms = totalRooms;

static void Main(string[] args)

{

InitializeHotelRooms();

while (true)

{

Console.WriteLine("Welcome to HOTEL DE LUNA!");

Console.WriteLine("==============================");

Console.WriteLine("Enter 1 to view available hotel rooms");

Console.WriteLine("Enter 2 to reserve a room");

Console.WriteLine("Enter 3 to exit application");

Console.Write("Enter your choice: ");

int choice = int.Parse(Console.ReadLine());

switch (choice)

{

case 1:

ViewAvailableRooms();

break;

case 2:

ReserveHotelRooms();

break;

case 3:

Console.WriteLine("Thank you for using Online Hotel Reservation System of HOTEL DE LUNA!");

return;

default:

Console.WriteLine("Invalid choice. Please try again.");

break;

}

Console.WriteLine();

}

}

static void InitializeHotelRooms()

{

for (int i = 0; i < hotelRooms.GetLength(0); i++)

{

for (int j = 0; j < hotelRooms.GetLength(1); j++)

{

hotelRooms[i, j] = "AVAILABLE";

}

}

}

static void ViewAvailableRooms()

{

Console.WriteLine($"There are {availableRooms} available rooms out of {totalRooms} total rooms.");

for (int i = 0; i < hotelRooms.GetLength(0); i++)

{

for (int j = 0; j < hotelRooms.GetLength(1); j++)

{

Console.Write($"[{hotelRooms[i, j]}] ");

}

Console.WriteLine();

}

}

static void ReserveHotelRooms()

{

Console.WriteLine("Please enter your name:");

string name = Console.ReadLine();

Console.WriteLine("Please enter the floor number (1-10) you want to reserve:");

int floor = int.Parse(Console.ReadLine());

Console.WriteLine("Please enter the room number (1-5) you want to reserve:");

int room = int.Parse(Console.ReadLine());

if (floor < 0 || floor > 9 || room < 0 || room > 4)

{

Console.WriteLine("Invalid floor or room number. Please try again.");

}

else if (hotelRooms[floor, room] != "AVAILABLE")

{

Console.WriteLine("This hotel room is already reserved. Please choose another one.");

}

else

{

hotelRooms[floor, room] = name;

availableRooms--;

Console.WriteLine($"Floor #[{floor},{room}] number has been reserved for {name}.");

}

}

}

}