```c
#include<stdio.h>
#include<stdlib.h>
#include <conio.h>
#include<time.h>
#define PRICE_PER_DAY 100
#define NUM_ROOMS 50

struct CustomerDetails
{
    char name[20];
    char address[25];
    long phonenumber;
    char nationality[15];
    long idproof;
    char email[20];
    char period[10];
    char arrivaldate[10];

} s;

void frontpage();

void frontpage() {
    printf(" -----------------------------------------------------------------------\n");
        printf("|                                                        |\n");
        printf("|                                                        |\n");
        printf("|  O     0 OOOOOO O      OOOOOO OOOOOOO OO   OO OOOO00 |\n");
        printf("|  O     0 0     O      0     0   O O O O O O          |\n");
        printf("|  O  0  0 OOO0O0 O      O      O    O O O O OOOO00        |\n");
        printf("|  O 0 0 O 0       O       O     O   O 0   O O          |\n");
        printf("|  OO0   000 O00000 OOOOOOO  OOOOOO 0OOOOOO O    O OOOOOO |\n");
        printf("|                                                        |\n");
        printf(" -----------------------------------------------------------------------\n");


    printf("\n                  :::::::::::::::::::::::::::::");
    printf("\n                  ::                        ::");
    printf("\n                  ::   ********************    ::");
    printf("\n                  ::   *                *     ::");
    printf("\n                  ::   -    WELCOME TO   -     ::");
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    printf("\n                          ::    *      DS HOTEL     *      ::");
    printf("\n                          ::    -                  -     ::");
    printf("\n                          ::    **********************      ::");
    printf("\n                          ::                              ::");
    printf("\n                          :::::::::::::::::::::::::::::::\n\n");


  printf("\n     Kind heartedly we welcome u all,We make u feel luxurious \n");

}

void intro() {
  printf("                        AMINITIES\n");
  printf("\t\t\t1. non stop Power Supply.\n");
  printf("\t\t\t2. lift Service available\n");
  printf("\t\t\t3. Huge parking space.\n");
  printf("\t\t\t4. Laundary service.\n");
  printf("\t\t\t5. Both hot and cold water.\n");
  printf("\t\t\t6. Free internet service.\n");
  printf("\t\t\t7. 24 hours room service.\n");
  printf("\nPress any character to continue:\n");


}


void login() {
  char uname[20];
  char pass[10];

  printf("\n ************************* LOGIN FORM ************************* ");
  printf(" \n                ENTER USERNAME:-");
  scanf("%s", uname);
  printf(" \n                ENTER PASSWORD:-");
  scanf("%s", pass);
  printf("   *******************YOUR LOGIN IS SUCCESSFUL****************** ");
}

void signup() {
  struct CustomerDetails s;
  printf("\n  Enter Customer Details: ");
  printf("\n*************************\n");

  printf("Enter Name:\n");
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    scanf("%s", s.name);
    printf("Enter Address:\n");
    scanf("%s", s.address);

    printf("Enter Phone Number:\n");
    scanf("%ld", &s.phonenumber);
    printf("Enter Nationality:\n");
    scanf("%s", s.nationality);
    printf("Enter Aadhar Card Number for Id proof:\n");
    scanf("%ld", &s.idproof);
    printf("Enter Email:\n");
    scanf(" %s", s.email);
    printf("Enter Period( no of days):\n");
    scanf("%s", s.period);
    printf("Enter Arrival date(dd\\mm\\yyyy):\n");
    scanf("%s", s.arrivaldate);

}

typedef enum {
    false,
    true
} bool;

void initializeRooms(bool rooms[], int numRooms) {
    rooms[1] = rooms[4] = rooms[7] = false;
    for (int i = 0; i < numRooms; i++) {
        if (i != 1 && i != 4 && i != 7) {
            rooms[i] = true;
        }
    }
}

void displayAvailableRooms(bool rooms[], int numRooms) {
    printf("Available Rooms:\n");
    for (int i = 0; i < numRooms; i++) {
        if (rooms[i]) {
            printf("Room %d ", i + 1);
        }
    }
}

void bookRoom(bool rooms[], int roomNumber) {
    if (rooms[roomNumber - 1]) {
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        rooms[roomNumber - 1] = false;
        printf("Room %d has been booked.\n", roomNumber);
    } else {
        printf("Room %d is already occupied.\n", roomNumber);
    }
}


void displayMenu() {
    int i;
    int foodCodes[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15};
    char foodNames[][30] = {"Burger", "Pizza", "Pasta", "Salad", "Sandwich", "Chapati", "Chicken
Briyani", "Mutton Briyani", "Prawn Briyani", "Momos", "Idli", "Dosa", "Naan", "Panner Butter
Masala", "Meals"};
    int foodPrices[] = {150, 200, 180, 120, 100, 30, 120, 160, 250, 50, 25, 40, 50, 150, 150};
    printf("==========================================\n");
    printf("             MENU CARD\n");
    printf("==========================================\n");
    printf("%-5s%-20s%-10s\n", "Code", "Food Item", "Price");
    printf("==========================================\n");

    for (i = 0; i < sizeof(foodCodes) / sizeof(foodCodes[0]); i++) {
        printf("%-5d%-20s%-10d\n", foodCodes[i], foodNames[i], foodPrices[i]);
    }

    printf("==========================================\n");
}

void orderFood(int foodCodes[], char foodNames[][30], int foodPrices[]) {
    int foodCode, quantity;
    int totalCost = 0;
    char choice;

    do {
        displayMenu(foodCodes, foodNames, foodPrices);

        printf("Enter the food code you want to order: ");
        scanf("%d", &foodCode);
        if (foodCode < 1 || foodCode > 15) {
            printf("Invalid food code. Please enter a valid code.\n");
            continue;
        }

        printf("Enter the quantity: ");
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        scanf("%d", &quantity);
        printf("Item: %-20s | Quantity: %-5d | Cost: %-5d\n", foodNames[foodCode - 1], quantity,
foodPrices[foodCode - 1] * quantity);

        totalCost += foodPrices[foodCode - 1] * quantity;


        printf("Do you want to order more items? (Y/N): ");
        scanf(" %c", &choice);

    } while (choice == 'Y' || choice == 'y');

    printf("\nTotal Cost: %d\n", totalCost);
}
int generateOTP() {
    srand(time(NULL));
    return rand() % (999999 - 100000 + 1) + 100000;
}

int main() {
    struct CustomerDetails s;
    frontpage();
    intro();
    printf("\t\t\t1.signup \t\t\t\n");
    printf("\t\t\t2.Login \t\t\t\n");
    printf("\t\t\t3.exit \t\t\t\n");
    int User_opinion;
    scanf("%d",&User_opinion);

    switch(User_opinion){
        case 1:
            signup();
            break;
        case 2:
            login();
            break;
        default:
            exit(0);

    }
    bool rooms[NUM_ROOMS];
    int roomPrices[NUM_ROOMS];
    int daysStayed;
```

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    initializeRooms(rooms, NUM_ROOMS);

    for (int i = 0; i < NUM_ROOMS; i++) {
        roomPrices[i] = PRICE_PER_DAY * (i + 1);
    }

    int numRoomsToBook;
    printf("\nHow many rooms do you want to book? ");
    scanf("%d", &numRoomsToBook);

    int roomsBooked[numRoomsToBook];
    int totalBill = 0;

    for (int i = 0; i < numRoomsToBook; i++) {
        printf("\nAvailable Rooms:\n");
        displayAvailableRooms(rooms, NUM_ROOMS);

        int roomChoice;
        printf("\nEnter the room number to book (%d of %d): ", i + 1, numRoomsToBook);
        scanf("%d", &roomChoice);

        if (roomChoice >= 1 && roomChoice <= NUM_ROOMS && rooms[roomChoice - 1]) {
            bookRoom(rooms, roomChoice);
            roomsBooked[i] = roomChoice;
            totalBill += roomPrices[roomChoice - 1];
        } else {
            printf("Invalid room number or room already booked. Please try again.\n");
            i--;
        }
    }

    printf("\nYou have booked the following rooms:\n");
    for (int i = 0; i < numRoomsToBook; i++) {
        printf("Room %d - Price per day: $%d\n", roomsBooked[i], roomPrices[roomsBooked[i] -
1]);
    }

    printf("\nHow many days are you going to stay? ");
    scanf("%d", &daysStayed);

    int totalAmount = totalBill * daysStayed;
    printf("\nTotal Amount Due for %d days of stay: $%d\n", daysStayed, totalAmount);

    char extraBooking;
```

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    printf("\nDo you want to book extra rooms? (y/n): ");
    scanf(" %c", &extraBooking);

    while (extraBooking == 'y' || extraBooking == 'Y') {


        printf("\nDo you want to book more extra rooms? (y/n): ");
        scanf(" %c", &extraBooking);
    }

    printf("\nThank you for using our booking service!\n");

    displayAvailableRooms(rooms, NUM_ROOMS);
    int foodCodes[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15};
    char foodNames[][30] = {"Burger", "Pizza", "Pasta", "Salad", "Sandwich", "Chapati", "Chicken
Briyani", "Mutton Briyani", "Prawn Briyani", "Momos", "Idli", "Dosa", "Naan", "Panner Butter
Masala", "Meals"};
    int foodPrices[] = {150, 200, 180, 120, 100, 30, 120, 160, 250, 50, 25, 40, 50, 150, 150};

    char need_food;
    printf("\nDo u need food (Y/N): ");
    scanf(" %c", &need_food);

    switch (need_food) {
        case 'Y':
            orderFood(foodCodes, foodNames, foodPrices);
            printf("THANK YOU FOR DINING AT OUR RESTAURANT – YOUR PRESENCE IS THE
HIGHLIGHT OF OUR DAY");
            break;
        case 'N':
            printf("THANK YOU FOR VISITING US, LET'S CHEER UP AGAIN SOON...");
            break;
        default:
            printf("Invalid choice. Please enter 'Y' or 'N'.");


    }

    int otp = generateOTP();
    printf("\n");
    printf("\nGenerated OTP: %06d\n", otp);


    return 0;
```

}