North South University
Department of Electrical and Computer Engineering

Lab Project Report

```
Semester          :    NSU Fall 2022
Course Code       :    CSE 115L
Section           :    12
Group Name        :    B8
Faculty           :    Rifat Ahmed Hassan (RIH)
Lab Instructor    :    A. S. M. Sabiqul Hassan


Project Topic     :    Hotel Booking System
GitHub Repo Link  :
```
https://github.com/AkramHossainApu/CSE115L_B8_Project
```
Submission Date   :    28/12/2022
```

Student Information	GitHub Account Links
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Short intro of each operation

Welcome: This will show you a welcome message with hotel info.

Login: You have to enter username and pass to access the manu.

Menu: You can add, view, delete, search, edit customer's data.

AddCustomer: You can add new customer's data from here.

PrintInvoice: This will show your added customer's invoice.

ViewRecord: You can view all the customer's data from here.
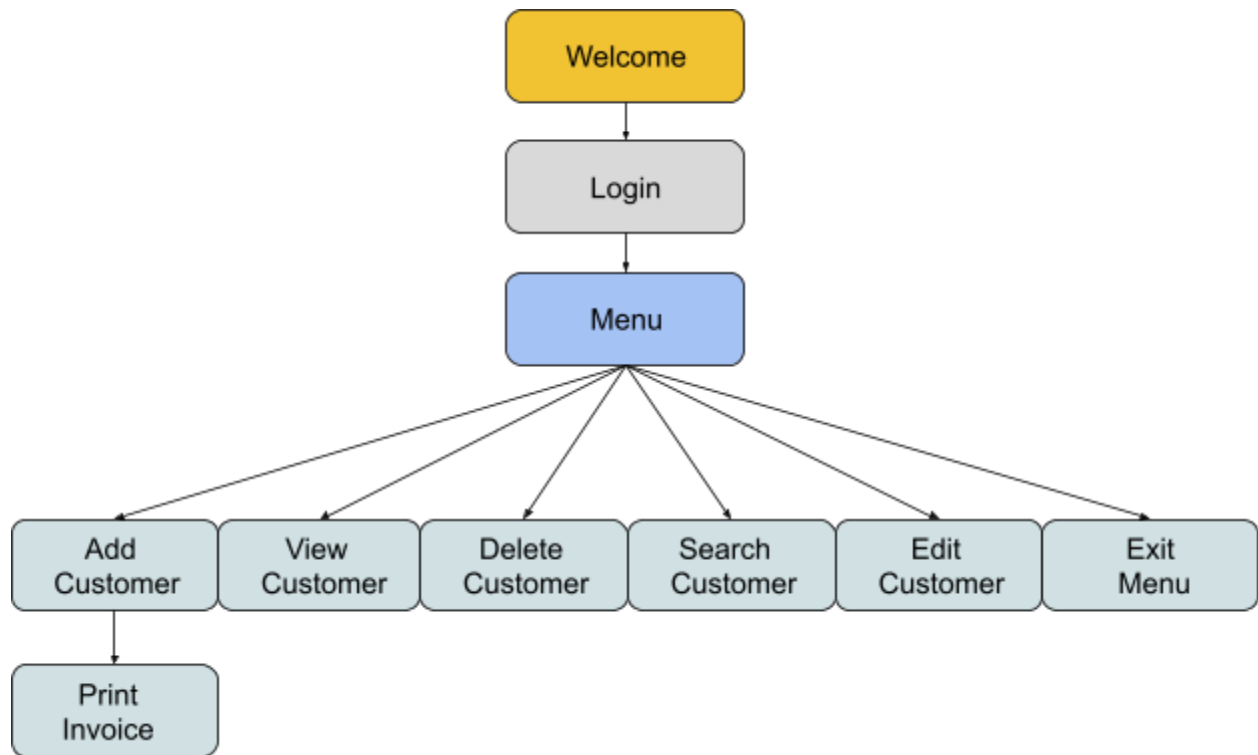
DeleteCustomer: You can delete a customer's data from here.

SearchCustomer: You can search customer's data from here.

EditCustomer: You can edit customer's data from here.

ExitMenu: You can exit from the menu by pressing this.

Flow Chart

```
                    ┌─────────────┐
                    │   Welcome   │
                    └─────────────┘
                           │
                           ▼
                    ┌─────────────┐
                    │    Login    │
                    └─────────────┘
                           │
                           ▼
                    ┌─────────────┐
                    │    Menu     │
                    └─────────────┘
```

Add Customer	View Customer	Delete Customer	Search Customer	Edit Customer	Exit Menu

Print Invoice

Coding

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <conio.h>
#include <unistd.h>

void printWelcome();
void checkLogin();
void showMenu();
void addCustomer();
void printInvoice();
void deleteCustomer();
void viewRecord();
void searchCustomer();
void editCustomer();
void exitMenu();

struct customer_details {
    char room_type[20];
    char room_no[10];
    char name[50];
    char address[50];
    char phn_no[15];
    char email[30];
    char period[5];
    char arrival_date[10];
}serial;

int main() {
    int menu;

    printWelcome();

    checkLogin();

    menu:
    showMenu();
    while(1) {
        menu = getch();
        system("cls");
        switch(menu){
            case '1':
                addCustomer();
                break;
            case '2':
                viewRecord();
```

```c
                    break;
            case '3':
                deleteCustomer();
                break;
            case '4':
                searchCustomer();
                break;
            case '5':
                editCustomer();
                break;
            case '6':
                exitMenu();
                break;
            default:
                    printf("\n\n\n\n\n\n\t\t\t\t\t     Incorrect
Input");
                printf("\n\n\n\t\t\t\t\t      Enter again");
                sleep(1);
                system("cls");
                goto menu;
        }
    }
    return 0;
}

void printWelcome() {
    printf("\n\n\n\n\n");
                                                    printf("\t
.------------------------------------------------------------
-------------.\n");
    printf("\t                                                  |
|\n");
    printf("\t   |   WW                WW EEEEEEE LL      CCCCCCC
OOOOOO  MM      MM EEEEEEE  |\n");
    printf("\t   |   WW                WW  EE       LL      CC
OO    OO MM MM  MM MM EE        |\n");
    printf("\t   |    WW     WW     WW   EEEEE    LL      CC
OO    OO MM   MM   MM EEEEE    |\n");
    printf("\t   |     WW WW  WW WW    EE       LL      CC
OO    OO MM      MM EE        |\n");
    printf("\t   |      WW      WW     EEEEEEE LLLLLLL CCCCCCC
OOOOOO  MM      MM EEEEEEE  |\n");
    printf("\t                                                  |
|\n");
    printf("\t
'------------------------------------------------------------
-------------'\n");
```

```c
        sleep(1);
        system("cls");
        printf("\n\n\n");
        printf("\t\t\t\t    .--------------------------.\n");
        printf("\t\t\t\t    |                          |\n");
        printf("\t\t\t\t    |      .-------------.      |\n");
        printf("\t\t\t\t    |      | HOTEL ELITE |      |\n");
        printf("\t\t\t\t    |      '-------------'      |\n");
        printf("\t\t\t\t    |                          |\n");
        printf("\t\t\t\t    |                          |\n");
        printf("\t\t\t\t    |      Brought To You By    |\n");
        printf("\t\t\t\t    |                          |\n");
        printf("\t\t\t\t    |   Akram Hossain Apu Khan  |\n");
        printf("\t\t\t\t    |        Kazim Hasan        |\n");
        printf("\t\t\t\t    |        Abrar Fayaz        |\n");
        printf("\t\t\t\t    '--------------------------'\n");
        sleep(2);
        system("cls");
}

void checkLogin() {
    char name[100], pass[50];
    jump:

printf("_____-|LOGIN|-
_____\n\n");
        printf("\n\t\t\t\t                    _____-  Enter  Username
-_____\n\n\t\t\t\t\t\t");
    gets(name);
            printf("\n\t\t\t\t                    _____-Enter
Password-_____\n\n\t\t\t\t\t\t");

    int i;
    while(1) {
        pass[i] = getch();
        if(pass[i] == 13){
            break;
        }else{
        printf("*");
        i++;
        }
    }
    pass[i] = '\0';

    if(strcmp(name,"user") != 0 && strcmp(pass,"pass") != 0) {
            printf("\n\n\n\t\t\t\t     !!Incorrect  Username  and
Password!!\n\n\n");
```

```c
            printf("\n\t\t\t\t          Press  any  key  to  enter
again\n\n\t\t\t\t\t\t    ");
        getch();
        system("cls");
        goto jump;
    }else if(strcmp(name,"user") != 0 && strcmp(pass,"pass") ==
0) {
        printf("\n\n\n\t\t\t\t\t !!Incorrect Username!!\n\n\n");
            printf("\n\t\t\t\t          Press  any  key  to  enter
again\n\n\t\t\t\t\t\t    ");
        getch();
        system("cls");
        goto jump;
    }else if((strcmp(name,"user") == 0 && strcmp(pass,"pass") !=
0)) {
        printf("\n\n\n\t\t\t\t\t !!Incorrect Password!!\n\n\n");
            printf("\n\t\t\t\t          Press  any  key  to  enter
again\n\n\t\t\t\t\t\t    ");
        getch();
        system("cls");
        goto jump;
    }else {
        system("cls");
    }
}

void showMenu() {
      printf("_____-|MAIN
MENU|-_____\n\n");
    printf("\n\t\t\t\t\t   1 -> Book a room");
    printf("\n\t\t\t\t\t  ------------------");
    printf("\n\t\t\t\t    2 -> View Customers Record");
    printf("\n\t\t\t\t    ---------------------------");
     printf("\n\t\t\t        3 -> Delete  a  Customer  From  the
Record");
                                            printf("\n\t\t\t
----------------------------------------");
      printf("\n\t\t\t        4 -> Search  a  Customer  From  the
Record");
                                            printf("\n\t\t\t
----------------------------------------");
    printf("\n\t\t\t\t      5 -> Edit a Customer's Data");
    printf("\n\t\t\t\t    ----------------------------");
    printf("\n\t\t\t\t\t     6 -> Exit");
    printf("\n\t\t\t\t\t    ----------\n\n");
     printf("\n\t\t\t      _-|Please  enter  your  choice  from  the
menu|-_\n\t\t\t\t\t\t   ");
```

```c
}

void addCustomer() {
    FILE *f;
    char roomtype[20], roomnumber[10], check;
    jump:
    f = fopen("customerData.txt", "a+");
    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t                  !!Sorry, Something went wrong!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t\t.------------------------.");
        printf("\n\t\t\t\t\t|Enter Customer's Details|");
        printf("\n\t\t\t\t\t'------------------------'\n");
        printf("\n Enter Room type(AC/NON-AC):");
        gets(roomtype);
        fflush(stdin);
        printf("----------------------------");
            if(strcmp("AC", roomtype) == 0 || strcmp("NON-AC", roomtype) == 0) {
            printf("\n Enter Room number:");
            gets(roomnumber);
            fflush(stdin);
            printf("-------------------");
            while(fread(&serial, sizeof(serial), 1, f)) {
                if(strcmp(serial.room_no,roomnumber) == 0) {
                    printf("\n\n\n\t\t\t\t    !!Sorry, The room is already booked!!");
                    printf("\n\n\n\t\t\t\tPress Escape to go back to menu or any other key to fill up again");
                    check = getch();
                    if(check == 27){
                        fclose(f);
                        goto end;
                    }else {
                        system("cls");
                        fclose(f);
                        goto jump;
                    }
                }
            }
            strcpy(serial.room_type, roomtype);
            strcpy(serial.room_no, roomnumber);
            printf("\n Enter Name:");
            gets(serial.name);
            fflush(stdin);
```

```c
            printf("------------");
            printf("\n Enter Address:");
            gets(serial.address);
            fflush(stdin);
            printf("---------------");
            printf("\n Enter Phone Number:");
            gets(serial.phn_no);
            fflush(stdin);
            printf("--------------------");
            printf("\n Enter Email:");
            gets(serial.email);
            fflush(stdin);
            printf("------------");
            printf("\n Enter Period('x'days):");
            gets(serial.period);
            fflush(stdin);
            printf("----------------------");
            printf("\n Enter Arrival date(dd\\mm\\yyyy):");
            gets(serial.arrival_date);
            fflush(stdin);
            printf("--------------------------------");

            fwrite(&serial, sizeof(serial), 1, f);
            fflush(stdin);
               printf("\n\n\t\t\t\t    !!Your Room is successfully
booked!!\n");
               printf("\n\t\t\t\t   Press any key to go show the
invoice");
            fclose(f);
            getch();
            printInvoice();
        }else {
            printf("\n\n\n\n\n\n\t\t\t\t\t    Incorrect Input");
            printf("\n\n\n\t\t\t\t\t     Enter again");
            getch();
            system("cls");
            fclose(f);
            goto jump;
        }
        end:
        system("cls");
        showMenu();
    }
}

void printInvoice() {
    FILE *f;
```

```c
    int period, bill, total;

    f = fopen("customerData.txt", "r");

    while(fread(&serial, sizeof(serial), 1, f)) {
        period = atoi(serial.period);
        if (strcmp(serial.room_type, "AC") == 0){
            bill = 2000;
            total = bill * period;
        }else if (strcmp(serial.room_type, "NON-AC") == 0){
            bill = 1500;
            total = bill * period;
        }
        system("cls");
        printf("\t\t\t\t\t    .-------------.\n");
        printf("\t\t\t\t\t    | HOTEL ELITE |\n");

printf(".----------------------------------------------------
--------------------------------------------\n|");
        printf("\t\t\t\t\t\t|Invoice|\n|");
        printf("\t\t\t\t\t\t'-------'\n|");
        printf("\n|\t\t\t\t\t\t   Name\n|");
        printf("\t\t\t\t\t\t --------\n|");
        printf("\t\t\t\t\t\t   %s", serial.name);
        printf("\n| Room type: %s", serial.room_type);
                    printf("\t\t\t\t\t\t\tRoom   number:   %s\n|",
serial.room_no);
        printf("\n| Period: %s", serial.period);
                printf("\t\t\t\t\t\t\t\tArrival  date:  %s\n|",
serial.arrival_date);
        printf("\n|\t\t\t\t\t    ---------------\n|");
        printf("\t\t\t\t\t\tTOTAL BILL\n|");
        printf("\t\t\t\t\t\t(%d * %d)\n|", period, bill);
        printf("\t\t\t\t\t     = %d TAKA\n|", total);
        printf("\t\t\t\t\t    ---------------\n|");
            printf("\t\t\t\t*Press  any  key  to  pay  and  print  the
invoice*\n");

printf("'----------------------------------------------------
--------------------------------------------");
    }
    fclose(f);
    getch();
    system("cls");
     printf("\n\n\n\n\n\n\n\n\n\t\t\t\t!!Thank You  for  booking  a
room in our hotel!!");
    sleep(1);
```

```c
}

void viewRecord() {
    FILE *f;
    f = fopen("customerData.txt", "r");

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t    !!Sorry, There are no
customers!!");
        sleep(1);
    }else {
        int i = 1;
        while(fread(&serial, sizeof(serial), 1, f)) {
            printf("\n\t\t\t\t\t _-|Customer %d data|-_\n\n",
i);
            printf("\n Room type: %s", serial.room_type);
            printf("\n-----------");
            printf("\n Room number: %s", serial.room_no);
            printf("\n-------------");
            printf("\n Name: %s", serial.name);
            printf("\n------");
            printf("\n Address: %s", serial.address);
            printf("\n---------");
            printf("\n Phone Number: %s", serial.phn_no);
            printf("\n--------------");
            printf("\n Email: %s", serial.email);
            printf("\n-------");
            printf("\n Period: %s", serial.period);
            printf("\n--------");
            printf("\n Arrival date: %s", serial.arrival_date);
            printf("\n--------------");
            printf("\n\t\t\t\t    Press any key to go back to
menu");
            i++;
        }
        fclose(f);
        getch();
    }
    system("cls");
    showMenu();
}

void deleteCustomer() {
    FILE *f, *t;
    char roomnumber[20];
    int isFound = 0;
```

```c
    f = fopen("customerData.txt", "r");
    t = fopen("temp.txt", "a+");

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t    !!Sorry, there are no
customers!!");
        sleep(1);
    }else if(t == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t      !!Sorry,Something
went wrong!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
                                            printf("\n\t\t\t\t
--------------------------------\n\t\t\t\t      ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no,roomnumber) == 0) {
                isFound = 1;
            }else {
                fwrite(&serial, sizeof(serial), 1, t);
            }
        }
        if(isFound == 1) {
                printf("\n\n\n\n\n\t\t\t        !!The Customer is
successfully removed!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back
to menu\n\t\t\t\t\t    ");
        }else {
            printf("\n\n\n\n\n\t\t\t\t!!There is no customer in
this room!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back
to menu\n\t\t\t\t\t    ");
        }
        fclose(f);
        fclose(t);
        remove("customerData.txt");
        rename("temp.txt","customerData.txt");
        getch();
    }
    system("cls");
    showMenu();

}
```

```c
void searchCustomer() {
    FILE *f;
    char roomnumber[10];
    int isFound = 0;

    f = fopen("customerData.txt", "r+");
    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\t\t\t\t    !!Sorry, there are no
customers!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
                                        printf("\n\t\t\t\t
----------------------------------\n\t\t\t\t\t        ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no, roomnumber) == 0){
                system("cls");
                        printf("\n\t\t\t\t _-|Searched Customer's
details|-_\n");
                printf("\n Room type: %s", serial.room_type);
                printf("\n-----------");
                printf("\n Room number: %s", serial.room_no);
                printf("\n-------------");
                printf("\n Name: %s", serial.name);
                printf("\n------");
                printf("\n Address: %s", serial.address);
                printf("\n---------");
                printf("\n Phone Number: %s", serial.phn_no);
                printf("\n--------------");
                printf("\n Email: %s", serial.email);
                printf("\n-------");
                printf("\n Period: %s", serial.period);
                printf("\n--------");
                                printf("\n  Arrival  date:  %s",
serial.arrival_date);
                printf("\n--------------");
                 printf("\n\t\t\t\t   Press any key to go back to
menu");
                isFound = 1;
                break;
            }
        }
        if(isFound == 0) {
```

```c
            printf("\n\n\n\n\n\n\t\t\t\t   !!Searched Customer is
not found!!");
            printf("\n\n\n\n\t\t\t\t    Press any key to go back
to menu\n\t\t\t\t\t\t    ");
        }
        fclose(f);
        getch();
    }
     system("cls");
     showMenu();
}

void editCustomer() {
    FILE *f, *t;
     char roomnumber[10];
     int isFound = 0;

     f = fopen("customerData.txt", "r");
     t = fopen("temp.txt", "a+");

     if(f == NULL) {
         printf("\n\n\n\n\n\n\n\n\t\t\t\t    !!Sorry, there are no
customers!!");
         sleep(1);
    }else if(t == NULL) {
         printf("\n\n\n\n\n\n\n\n\t\t\t\t      !!Sorry,Something
went wrong!!");
         sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
                                    printf("\n\t\t\t\t
--------------------------------\n\t\t\t\t\t        ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no,roomnumber) == 0) {
                isFound = 1;
            }else {
                fwrite(&serial, sizeof(serial), 1, t);
            }
        }
        if (isFound == 1) {
            system("cls");
            printf("\n\t\t\t\t\t.------------------------.");
            printf("\n\t\t\t\t\t|Edited Customer's Details|");
            printf("\n\t\t\t\t\t'------------------------'\n");
```

```c
            printf("\n Enter Room type(AC/NON-AC):");
            gets(serial.room_type);
            fflush(stdin);
            printf("---------------------------");
            printf("\n Enter Room number:");
            gets(serial.room_no);
            fflush(stdin);
            printf("-------------------");
            printf("\n Enter Name:");
            gets(serial.name);
            fflush(stdin);
            printf("------------");
            printf("\n Enter Address:");
            gets(serial.address);
            fflush(stdin);
            printf("--------------");
            printf("\n Enter Phone Number:");
            gets(serial.phn_no);
            fflush(stdin);
            printf("--------------------");
            printf("\n Enter Email:");
            gets(serial.email);
            fflush(stdin);
            printf("------------");
            printf("\n Enter Period('x'days):");
            gets(serial.period);
            fflush(stdin);
            printf("----------------------");
            printf("\n Enter Arrival date(dd\\mm\\yyyy):");
            gets(serial.arrival_date);
            fflush(stdin);
            printf("--------------------------------");
            fwrite(&serial, sizeof(serial), 1, t);
            fflush(stdin);
                    printf("\n\n\t\t\t\t  !!Customer's  data  is
successfully edited!!");
            printf("\n\n\t\t\t\t     Press any key to go back
to menu");
        }else {
            printf("\n\n\n\n\n\t\t\t\t!!There is no customer in
this room!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back
to menu\n\t\t\t\t\t   ");
        }
        fclose(f);
        fclose(t);
        remove("customerData.txt");
```

```c
            rename("temp.txt","customerData.txt");
            getch();
        }
        system("cls");
        showMenu();
}

void exitMenu() {
        printf("\n\n\n\n\n\n\t\t\t\t\t    !!THANK YOU!!");
            printf("\n\n\n\n\t\t\t\tWe are happy to have you in our
hotel.");
        printf("\n\n\t\t\t\t\t   Have a nice day!\n\n\n\n\n");
        exit(0);
}
```

Welcome

```c
void printWelcome() {
    printf("\n\n\n\n\n");
    printf("\t    .----------------------------------------------------------------.\n");
    printf("\t    |                                                                |\n");
    printf("\t    |   WW           WW EEEEEEE LL      CCCCCCC  OOOOOO  MM        MM EEEEEEE |\n");
    printf("\t    |    WW         WW  EE      LL      CC       OO    OO MM MM  MM MM EE      |\n");
    printf("\t    |     WW   WW   WW  EEEE    LL      CC       OO    OO MM   MM   MM EEEE    |\n");
    printf("\t    |      WW WW  WW WW  EE      LL      CC       OO    OO MM        MM EE      |\n");
    printf("\t    |       WW      WW  EEEEEEE LLLLLLL CCCCCCC  OOOOOO  MM        MM EEEEEEE |\n");
    printf("\t    |                                                                |\n");
    printf("\t    '----------------------------------------------------------------'\n");
    sleep(1);
    system("cls");
    printf("\n\n\n");
    printf("\t\t\t\t    .--------------------------.\n");
    printf("\t\t\t\t    |                          |\n");
    printf("\t\t\t\t    |      .-------------.      |\n");
    printf("\t\t\t\t    |      | HOTEL ELITE |      |\n");
    printf("\t\t\t\t    |      '-------------'      |\n");
    printf("\t\t\t\t    |                          |\n");
    printf("\t\t\t\t    |                          |\n");
    printf("\t\t\t\t    |     Brought To You By     |\n");
    printf("\t\t\t\t    |                          |\n");
    printf("\t\t\t\t    |   Akram Hossain Apu Khan  |\n");
    printf("\t\t\t\t    |        Kazim Hasan        |\n");
    printf("\t\t\t\t    |        Abrar Fayaz        |\n");
    printf("\t\t\t\t    '--------------------------'\n");
    sleep(2);
    system("cls");
}
```

Login

```c
void checkLogin() {
    char name[100], pass[50];
    jump:
    printf("_____-|LOGIN|-_____\n\n");
    printf("\n\t\t\t        _____- Enter Username -_____\n\n\t\t\t\t\t");
    gets(name);
    printf("\n\t\t\t        _____-Enter Password-_____\n\n\t\t\t\t\t");

    int i;
    while(1) {
        pass[i] = getch();
        if(pass[i] == 13){
            break;
        }else{
        printf("*");
        i++;
        }
    }
    pass[i] = '\0';

    if(strcmp(name,"user") != 0 && strcmp(pass,"pass") != 0) {
        printf("\n\n\n\t\t\t   !!Incorrect Username and Password!!\n\n\n");
        printf("\n\t\t\t      Press any key to enter again\n\n\t\t\t\t\t   ");
        getch();
        system("cls");
        goto jump;
    }else if(strcmp(name,"user") != 0 && strcmp(pass,"pass") == 0) {
        printf("\n\n\n\t\t\t\t !!Incorrect Username!!\n\n\n");
        printf("\n\t\t\t      Press any key to enter again\n\n\t\t\t\t\t   ");
        getch();
        system("cls");
        goto jump;
    }else if((strcmp(name,"user") == 0 && strcmp(pass,"pass") != 0)) {
        printf("\n\n\n\t\t\t\t !!Incorrect Password!!\n\n\n");
        printf("\n\t\t\t      Press any key to enter again\n\n\t\t\t\t\t   ");
        getch();
        system("cls");
        goto jump;
    }else {
        system("cls");
    }
}
```

Menu

```c
void showMenu() {
    printf("_____-|MAIN MENU|-_____\n\n");
    printf("\n\t\t\t\t   1 -> Book a room");
    printf("\n\t\t\t\t  ------------------");
    printf("\n\t\t\t\t    2 -> View Customers Record");
    printf("\n\t\t\t\t   ---------------------------");
    printf("\n\t\t\t     3 -> Delete a Customer From the Record");
    printf("\n\t\t\t    ---------------------------------------");
    printf("\n\t\t\t     4 -> Search a Customer From the Record");
    printf("\n\t\t\t    ---------------------------------------");
    printf("\n\t\t\t\t  5 -> Edit a Customer's Data");
    printf("\n\t\t\t\t ----------------------------");
    printf("\n\t\t\t\t    6 -> Exit");
    printf("\n\t\t\t\t   ----------\n\n");
    printf("\n\t\t\t     -|Please enter your choice from the menu|-\n\t\t\t\t\t   ");
}
```

AddCustomer

```c
void addCustomer() {
    FILE *f;
    char roomtype[20], roomnumber[10], check;
    jump:
    f = fopen("customerData.txt", "a+");
    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\t\t\t\t     !!Sorry, Something went wrong!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t\t.------------------------.");
        printf("\n\t\t\t\t\t|Enter Customer's Details|");
        printf("\n\t\t\t\t\t'------------------------'\n");
        printf("\n Enter Room type(AC/NON-AC):");
        gets(roomtype);
        fflush(stdin);
        printf("--------------------------");
        if(strcmp("AC", roomtype) == 0 || strcmp("NON-AC", roomtype) == 0) {
            printf("\n Enter Room number:");
            gets(roomnumber);
            fflush(stdin);
            printf("-------------------");
            while(fread(&serial, sizeof(serial), 1, f)) {
                if(strcmp(serial.room_no,roomnumber) == 0) {
                    printf("\n\n\t\t\t\t     !!Sorry, The room is already booked!!");
                    printf("\n\n\n\t\t\tPress Escape to go back to menu or any other key to fill up again");
                    check = getch();
                    if(check == 27){
                        fclose(f);
                        goto end;
                    }else {
                        system("cls");
                        fclose(f);
                        goto jump;
                    }
                }
            }
            strcpy(serial.room_type, roomtype);
            strcpy(serial.room_no, roomnumber);
            printf("\n Enter Name:");
            gets(serial.name);
            fflush(stdin);
            printf("------------");
```

```c
        printf("\n Enter Address:");
        gets(serial.address);
        fflush(stdin);
        printf("---------------");
        printf("\n Enter Phone Number:");
        gets(serial.phn_no);
        fflush(stdin);
        printf("--------------------");
        printf("\n Enter Email:");
        gets(serial.email);
        fflush(stdin);
        printf("------------");
        printf("\n Enter Period('x'days):");
        gets(serial.period);
        fflush(stdin);
        printf("---------------------");
        printf("\n Enter Arrival date(dd\\mm\\yyyy):");
        gets(serial.arrival_date);
        fflush(stdin);
        printf("--------------------------------");

        fwrite(&serial, sizeof(serial), 1, f);
        fflush(stdin);
        printf("\n\n\t\t\t\t   !!Your Room is successfully booked!!\n");
        printf("\n\t\t\t\t   Press any key to go show the invoice");
        fclose(f);
        getch();
        printInvoice();
    }else {
        printf("\n\n\n\n\n\n\t\t\t\t\t    Incorrect Input");
        printf("\n\n\n\t\t\t\t\t      Enter again");
        getch();
        system("cls");
        fclose(f);
        goto jump;
    }
    end:
    system("cls");
    showMenu();
    }
}
```

PrintInvoice

```c
void printInvoice() {
    FILE *f;
    int period, bill, total;

    f = fopen("customerData.txt", "r");

    while(fread(&serial, sizeof(serial), 1, f)) {
        period = atoi(serial.period);
        if (strcmp(serial.room_type, "AC") == 0){
            bill = 2000;
            total = bill * period;
        }else if (strcmp(serial.room_type, "NON-AC") == 0){
            bill = 1500;
            total = bill * period;
        }
        system("cls");
        printf("\t\t\t\t\t    .-------------.\n");
        printf("\t\t\t\t\t    | HOTEL ELITE |\n");
        printf(".----------------------------------------------------------------------------------------------------\n|");
        printf("\t\t\t\t\t\t|Invoice|\n|");
        printf("\t\t\t\t\t\t'-------'\n|");
        printf("\n|\t\t\t\t\t   Name\n|");
        printf("\t\t\t\t\t --------\n|");
        printf("\t\t\t\t\t   %s", serial.name);
        printf("\n| Room type: %s", serial.room_type);
        printf("\t\t\t\t\t\tRoom number: %s\n|", serial.room_no);
        printf("\n| Period: %s", serial.period);
        printf("\t\t\t\t\t\t\tArrival date: %s\n|", serial.arrival_date);
        printf("\n|\t\t\t\t\t   ---------------\n|");
        printf("\t\t\t\t\tTOTAL BILL\n|");
        printf("\t\t\t\t\t(%d * %d)\n|", period, bill);
        printf("\t\t\t\t\t     = %d TAKA\n|", total);
        printf("\t\t\t\t\t   ---------------\n|");
        printf("\t\t\t*Press any key to pay and print the invoice*\n");
        printf("'----------------------------------------------------------------------------------------------------");
    }
    fclose(f);
    getch();
    system("cls");
    printf("\n\n\n\n\n\n\n\n\t\t\t!!Thank You for booking a room in our hotel!!");
    sleep(1);
}
```

ViewRecord

```c
void viewRecord() {
    FILE *f;
    f = fopen("customerData.txt", "r");

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\t\t\t\t   !!Sorry, There are no customers!!");
        sleep(1);
    }else {
        int i = 1;
        while(fread(&serial, sizeof(serial), 1, f)) {
            printf("\n\t\t\t\t\t -|Customer %d data|-\n\n", i);
            printf("\n Room type: %s", serial.room_type);
            printf("\n-----------");
            printf("\n Room number: %s", serial.room_no);
            printf("\n------------");
            printf("\n Name: %s", serial.name);
            printf("\n------");
            printf("\n Address: %s", serial.address);
            printf("\n---------");
            printf("\n Phone Number: %s", serial.phn_no);
            printf("\n-------------");
            printf("\n Email: %s", serial.email);
            printf("\n-------");
            printf("\n Period: %s", serial.period);
            printf("\n--------");
            printf("\n Arrival date: %s", serial.arrival_date);
            printf("\n-------------");
            printf("\n\t\t\t\t   Press any key to go back to menu");
            i++;
        }
        fclose(f);
        getch();
    }
    system("cls");
    showMenu();
}
```

DeleteCustomer

```c
void deleteCustomer() {
    FILE *f, *t;
    char roomnumber[20];
    int isFound = 0;

    f = fopen("customerData.txt", "r");
    t = fopen("temp.txt", "a+");

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t   !!Sorry, there are no customers!!");
        sleep(1);
    }else if(t == NULL) {
        printf("\n\n\n\n\n\n\n\n\n\t\t\t\t     !!Sorry,Something went wrong!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
        printf("\n\t\t\t\t --------------------------------\n\t\t\t\t\t        ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no,roomnumber) == 0) {
                isFound = 1;
            }else {
                fwrite(&serial, sizeof(serial), 1, t);
            }
        }
        if(isFound == 1) {
            printf("\n\n\n\n\n\t\t\t       !!The Customer is successfully removed!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back to menu\n\t\t\t\t\t   ");
        }else {
            printf("\n\n\n\n\n\t\t\t\t!!There is no customer in this room!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back to menu\n\t\t\t\t\t   ");
        }

        fclose(f);
        fclose(t);
        remove("customerData.txt");
        rename("temp.txt","customerData.txt");
        getch();
    }
    system("cls");
    showMenu();

}
```

SearchCustomer

```c
void searchCustomer() {
    FILE *f;
    char roomnumber[10];
    int isFound = 0;

    f = fopen("customerData.txt", "r+");
    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t   !!Sorry, there are no customers!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
        printf("\n\t\t\t\t --------------------------------\n\t\t\t\t\t      ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no, roomnumber) == 0){
                system("cls");
                printf("\n\t\t\t\t -|Searched Customer's details|- \n");
                printf("\n Room type: %s", serial.room_type);
                printf("\n----------");
                printf("\n Room number: %s", serial.room_no);
                printf("\n------------");
                printf("\n Name: %s", serial.name);
                printf("\n------");
                printf("\n Address: %s", serial.address);
                printf("\n---------");
                printf("\n Phone Number: %s", serial.phn_no);
                printf("\n-------------");
                printf("\n Email: %s", serial.email);
                printf("\n-------");
                printf("\n Period: %s", serial.period);
                printf("\n--------");
                printf("\n Arrival date: %s", serial.arrival_date);
                printf("\n-------------");
                printf("\n\t\t\t\t   Press any key to go back to menu");
                isFound = 1;
                break;
            }
        }

        if(isFound == 0) {
            printf("\n\n\n\n\n\n\t\t\t\t  !!Searched Customer is not found!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back to menu\n\t\t\t\t\t   ");
        }
        fclose(f);
        getch();
    }
    system("cls");
    showMenu();
}
```

EditCustomer

```c
void editCustomer() {
    FILE *f, *t;
    char roomnumber[10];
    int isFound = 0;

    f = fopen("customerData.txt", "r");
    t = fopen("temp.txt", "a+");

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t   !!Sorry, there are no customers!!");
        sleep(1);
    }else if(t == NULL) {
        printf("\n\n\n\n\n\n\n\n\t\t\t\t     !!Sorry,Something went wrong!!");
        sleep(1);
    }else {
        printf("\n\t\t\t\t Enter room number of the customer");
        printf("\n\t\t\t\t ----------------------------------\n\t\t\t\t\t      ");
        gets(roomnumber);
        fflush(stdin);

        while(fread(&serial, sizeof(serial), 1, f)) {
            if(strcmp(serial.room_no,roomnumber) == 0) {
                isFound = 1;
            }else {
                fwrite(&serial, sizeof(serial), 1, t);
            }
        }
        if (isFound == 1) {
            system("cls");
            printf("\n\t\t\t\t\t.-------------------------.");
            printf("\n\t\t\t\t\t\t|Edited Customer's Details|");
            printf("\n\t\t\t\t\t\t'-------------------------'\n");
            printf("\n Enter Room type(AC/NON-AC):");
            gets(serial.room_type);
            fflush(stdin);
            printf("---------------------------");
            printf("\n Enter Room number:");
            gets(serial.room_no);
            fflush(stdin);
            printf("-------------------");
```

```c
            printf("\n Enter Name:");
            gets(serial.name);
            fflush(stdin);
            printf("------------");
            printf("\n Enter Address:");
            gets(serial.address);
            fflush(stdin);
            printf("--------------");
            printf("\n Enter Phone Number:");
            gets(serial.phn_no);
            fflush(stdin);
            printf("-------------------");
            printf("\n Enter Email:");
            gets(serial.email);
            fflush(stdin);
            printf("------------");
            printf("\n Enter Period('x'days):");
            gets(serial.period);
            fflush(stdin);
            printf("---------------------");
            printf("\n Enter Arrival date(dd\\mm\\yyyy):");
            gets(serial.arrival_date);
            fflush(stdin);
            printf("--------------------------------");
            fwrite(&serial, sizeof(serial), 1, t);
            fflush(stdin);
            printf("\n\n\t\t\t\t !!Customer's data is successfully edited!!");
            printf("\n\n\t\t\t\t      Press any key to go back to menu");
        }else {
            printf("\n\n\n\n\n\t\t\t\t!!There is no customer in this room!!");
            printf("\n\n\n\n\t\t\t\t   Press any key to go back to menu\n\t\t\t\t\t    ");
        }
        fclose(f);
        fclose(t);
        remove("customerData.txt");
        rename("temp.txt","customerData.txt");
        getch();
    }
    system("cls");
    showMenu();
}
```

ExitMenu

```c
void exitMenu() {
    printf("\n\n\n\n\n\n\t\t\t\t\t     !!THANK YOU!!");
    printf("\n\n\n\n\t\t\t\tWe are happy to have you in our hotel.");
    printf("\n\n\t\t\t\t\t   Have a nice day!\n\n\n\n\n");
    exit(0);
}
```