



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

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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.

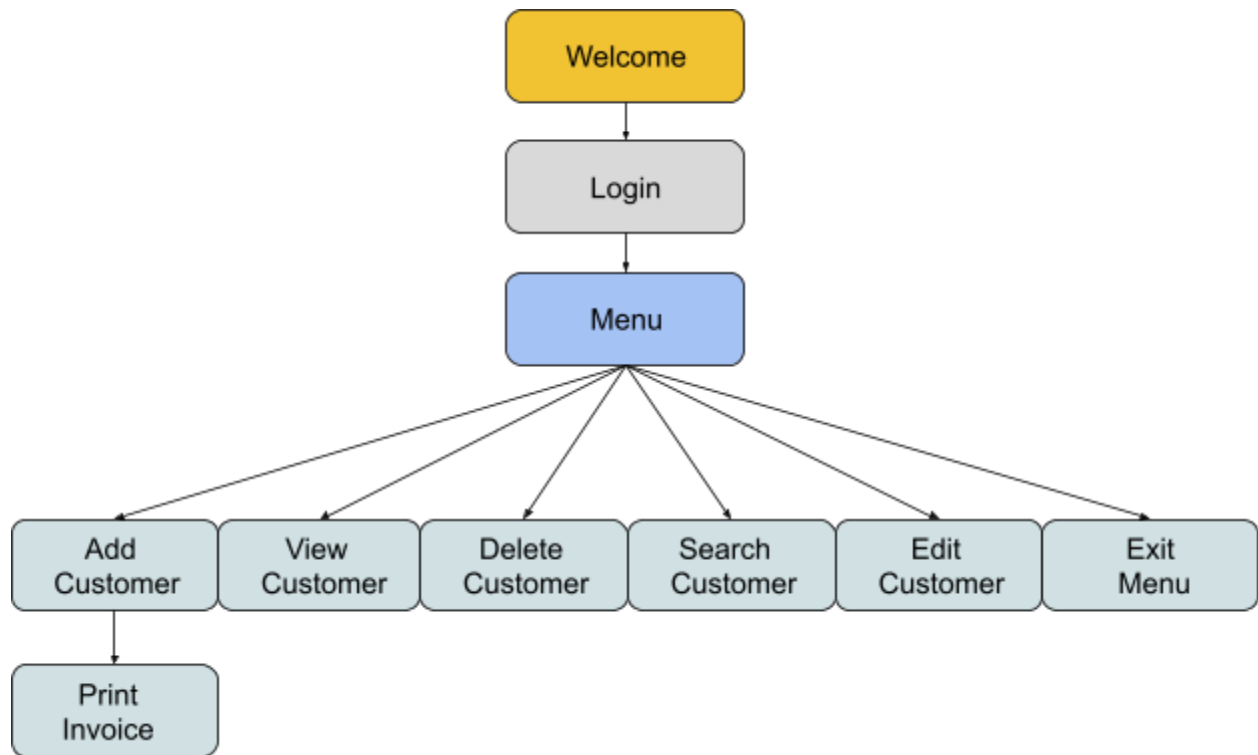
DeleteCustomer: You can delete a customer's data from here.

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



Coding

```
#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();
```

[illegible]

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

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

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


[illegible]


```

        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\t!!Your Room is successfully
booked!!\n");
        fclose(f);
        getch();
        printInvoice();
    }
end:
system("cls");
showMenu();
}

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

    while(fread(&serial, sizeof(serial), 1, f)) {
        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\t|Invoice|\n");
        printf("\t\t\t\t\t\t\t'-----'\n");
        printf("\n| Room type: %s\n|", serial.room_type);
        printf("\n| Room number: %s\n|", serial.room_no);
        printf("\n| Name: %s\n|", serial.name);
        printf("\n| Address: %s\n|", serial.address);
        printf("\n| Phone Number: %s\n|", serial.phn_no);
        printf("\n| Email: %s\n|", serial.email);
        printf("\n| Period: %s", serial.period);
        printf("\t\t\t\t\t*Press any key to print the invoice and
go back to menu*\n");
        printf("\n| Arrival date: %s\n|", serial.arrival_date);

printf("'-----\n");

```

```

    }
    fclose(f);
    getch();
    system("cls");
}

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

    if(f == NULL) {
        printf("\n\n\n\n\n\n\n\n\n\t\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\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\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;

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

if(f == NULL) {
    printf("\n\n\n\n\n\n\n\n\n\t\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\t!!Sorry, Something went wrong!!");
    sleep(1);
}else {
    printf("\n\t\t\t\t\tEnter room number of the customer");
    printf("\n\t\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\n\n\n\n\t\t\t\t\t!!The Customer is successfully removed!!");
        printf("\n\n\n\n\n\n\n\n\n\t\t\t\t\tPress any key to go back to menu\n\n\t\t\t\t\t");
    }else {
        printf("\n\n\n\n\n\n\n\n\n\t\t\t\t\t!!There is no customer in this room!!");
        printf("\n\n\n\n\n\n\n\n\n\t\t\t\t\tPress any key to go back to menu\n\n\t\t\t\t\t");
    }
    fclose(f);
    fclose(t);
    remove("customerData.txt");
    rename("temp.txt","customerData.txt");
    getch();
}
system("cls");
```

[illegible]

```

    }
    if(isFound == 0) {
        printf("\n\n\n\n\n\n\n\t\t\t\t\t !!Searched Customer is
not found!!");
        printf("\n\n\n\n\n\n\n\t\t\t\t\t Press any key to go back
to menu\n\n\n\n\n\n\n\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\n\n\n\t\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\n\n\t\t\t\t\t !!Sorry, Something
went wrong!!");
        sleep(1);
    }else {
        printf("\n\n\n\n\n\n\n\t\t\t\t\t Enter room number of the customer");
        printf("\n\n\n\n\n\n\n\t\t\t\t\t ");
        -----\n\n\n\n\n\n\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");

```

[illegible]

Login

[illegible]

Menu

[illegible]

AddCustomer

```
strcpy(serial.room_type, roomtype);
strcpy(serial.room_no, roomnumber);
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, f);
fflush(stdin);
printf("\n\n\t\t\t\t\t !!Your Room is successfully booked!!\n");
fclose(f);
getch();
printInvoice();
}
end:
system("cls");
showMenu();
}
```

```

        strcpy(serial.room_type, roomtype);
        strcpy(serial.room_no, roomnumber);
        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, f);
        fflush(stdin);
        printf("\n\n\t\t\t\t\t !!Your Room is successfully booked!!\n");
        fclose(f);
        getch();
        printInvoice();
    }
end:
system("cls");
showMenu();
}

```

PrintInvoice

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

    while(fread(&serial, sizeof(serial), 1, f)) {
        system("cls");
        printf("\t\t\t\t\t .-----.\n");
        printf("\t\t\t\t\t | HOTEL ELITE |\n");
        printf("\t\t\t\t\t |-----|\n");
        printf("\t\t\t\t\t |Invoice|\n");
        printf("\t\t\t\t\t |-----|\n");
        printf("\n| Room type: %s\n", serial.room_type);
        printf("\n| Room number: %s\n", serial.room_no);
        printf("\n| Name: %s\n", serial.name);
        printf("\n| Address: %s\n", serial.address);
        printf("\n| Phone Number: %s\n", serial.phn_no);
        printf("\n| Email: %s\n", serial.email);
        printf("\n| Period: %s", serial.period);
        printf("\t\t\t\t\t*Press any key to print the invoice and go back to menu*\n");
        printf("\n| Arrival date: %s\n", serial.arrival_date);
        printf("\t\t\t\t\t|-----|");
    }
    fclose(f);
    getch();
    system("cls");
}
```

ViewRecord

```
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\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\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\t\t\t Press any key to go back to menu");  
            i++;  
        }  
        fclose(f);  
        getch();  
    }  
    system("cls");  
    showMenu();  
}
```

DeleteCustomer

}

SearchCustomer

```
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\t Enter room number of the customer");  
        printf("\n\t\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\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\t Press any key to go back to menu");  
                isFound = 1;  
                break;  
            }  
        }  
  
        if(isFound == 0) {  
            printf("\n\n\n\n\n\n\n\t\t\t\t !!Searched Customer is not found!!");  
            printf("\n\n\n\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

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

