

# JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY



विद्या तत्त्व ज्योतिसमः

## PROJECT TITLE: HOTEL MANAGEMENT SYSTEM USING C PROGRAM

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# ACKNOWLEDGEMENT

Many people assisted me in successfully finishing this project. I want to thank everyone involved in this initiative. I would like to thank Mrs. Manju who helped me learn a lot about this project. Her ideas and comments aided in the completion of this project.

I am grateful to the college administration for providing me with such a significant chance. I believe I will participate in more such activities in the future. Finally, I would like to express my gratitude to my parents and friends for their excellent comments and guidance during the completion of this project.

# INTRODUCTION

## Objective of the Project

Project idea should be related to database management using file handling in C. For Ex: Railway reservation system, library management system, Flight reservation system, banking management system etc.

## About the Project

Our project, entitled **Hotel Management System Using C Program** is a program that allows us to present a hotel management system in a simple way and makes it easy to store and retrieve data. Traditionally, this procedure was done manually which was an arduous task. Now data can be **managed properly** and in an **efficient way**.

The program uses the **C language** which is used to program this project. C is a general-purpose programming language created by Dennis Ritchie at the Bell Laboratories in 1972. It is a very popular language, despite being old.

The program is used to take input from the user with the motive of **booking a room** and then giving the staff an **access to view the data, retrieve the data and manipulate the data** meaningfully when required. This makes the program **user friendly, simple, fast and cost-effective**.

## Features of the Project

Take input from the admin for logging into the system and viewing the homepage of the database program if the login is successful.

Taking input to select and option for the following features:

1. **Booking a room** by taking input for name , phone number, room number, arrival date, departure date, etc.
2. **View the records** by showing all the records present in the database.
3. **Searching for a record** by taking input for a room number and showing details of that room owner.
4. **Deleting a record** by taking input for a room number and deleting the details of that room.
5. **Editing a record** by taking input for a room number and then taking input details for that room number.
6. **Exit page** for showing a message to thank the user for visiting the program.

# CODE OF THE PROJECT

```
#include<stdio.h>
#include<stdlib.h>
#include<time.h>
#include<string.h>

void add();
void list();
void edit();
void delete1();
void search();

void login()
{
    char username[100];
    char password[100];
    system("cls");

    printf("Enter the username: ");
    gets(username);

    printf("\nEnter the password: ");
    gets(password);

    if(strcmp(username, "arpita") == 0 || strcmp(username,
"anushka") == 0 || strcmp(username, "divya") == 0)
    {
        if(strcmp(password, "qwerty") == 0)
        {
            printf("\nUser successfully logged in...");
        }
        else
        {
            printf("\nPassword entered is invalid");
        }
    }
}
```

```

else
{
    printf("\nUsername entered is invalid");
    exit(0);
}
getch();
}

struct information
{
    char roomno[10];
    char name[100];
    char phoneno[10];
    char email[50];
    int arrivaldate[10];
    int departuredate[10];
}info;

int main(){
    int i=0;
    time_t t; //new
    time(&t);
    int choice;
    login();
    system("cls");//new
    while (1)
    {
        system("cls");
        for(i=0;i<80;i++)
        {
            printf("-");
        }
        printf("\nCurrent date and time : %s",ctime(&t));
        for(i=0;i<80;i++)
        {
            printf("-");
        }
    }
}

```

```

    printf("\n      *****WELCOME TO AURORA
HOTEL*****\n");
    printf("\n      *****HOMEPAGE***** \n");
    for(i=0;i<80;i++)
    {
        printf("-");
    }
    printf("\n");
    printf("\n\n");
    printf(" \n 1. Book a room");
    printf("\n-----");
    printf(" \n 2. View Customer Record");
    printf("\n-----");
    printf(" \n 3. Delete Customer Record");
    printf("\n-----");
    printf(" \n 4. Search Customer Record");
    printf("\n-----");
    printf(" \n 5. Edit Record");
    printf("\n-----");
    printf(" \n 6. Exit");
    printf("\n-----");
    printf("\n");
    printf("\t\t Enter your choice [1-6]:");
    scanf("%d",&choice);

    switch(choice)
    {
        case 1:
            add();
            break;
        case 2:
            list();
            break;
        case 3:
            deletel();
            break;
        case 4:

```

```

        search();
        break;
    case 5:
        edit();
        break;
    case 6:
        system("cls");
        printf("\n\n\t **THANK YOU**");
        printf("\n\t FOR VISITING OUR SITE");
        printf("\n Press any key to continue");
        getch();
        exit(0);
    default:
        system("cls");
        printf("Incorrect Input");
        printf("\n Press any key to continue");
        getch();//new
    }
}
}

```

```

void add()
{
    FILE *f;
    char test;
    f=fopen("add.txt","a+");
    if(f==NULL)
    {
        f=fopen("add.txt","w+");
        system("cls");
        printf("Hold on while we set our database in your
computer!!");
        printf("\n Process completed, press any key to
continue!! ");
        getch();
    }
    while(1)
    {

```



```

        system("cls");
        printf("\n Enter Customer Details:");
        printf("\n*****");
        printf("\nEnter Room Number:");
        scanf("%s",info.roomno);
        printf("\nEnter Name:");
        scanf("%s",info.name);
        printf("\nEnter Phone Number:");
        scanf("%d",info.phoneno);
        printf("\nEnter Email:");
        scanf("%s",info.email);
        printf("\nEnter Arrival date(dd\\mm\\yyyy):");
        scanf("%d",&info.arrivaldate);
        printf("\nEnter Departure date(dd\\mm\\yyyy):");
        scanf("%d",&info.departuredate);
        fwrite(&info,sizeof(info),1,f);
        printf("\n\nl Room is successfully booked!!");
        printf("\n Press esc key to exit,  any other key to
add another customer detail:");
        test=getche();
        if(test==27)
        {
            break;
        }
    }
    fclose(f);
}

void list()
{
    FILE *f;
    int i;
    if((f=fopen("add.txt","r"))==NULL)
    {
        exit(0);
    }
    system("cls");

```

```

printf("\t ROOM_NUMBER ");
printf("\t NAME ");
printf("\t PHONE_NUMBER ");
printf("\t EMAIL ");
printf("\t ARRIVAL_DATE ");
printf("\t DEPARTURE_DATE \n");
for(i=0;i<118;i++)
{
    printf("-");
}
while(fread(&info,sizeof(info),1,f)==1)
{
    printf("\n\t%s \t%s \t%d \t%s \t%d
\t%d",info.roomno, info.name, info.phoneno, info.email,
info.arrivaldate, info.departuredate);
}
printf("\n");
for(i=0;i<118;i++)
{
    printf("-");
}
fclose(f);
getch();
}

void deletel()
{
    FILE *f,*t;
    int i=1;
    char roomno[20];
    if((t=fopen("temp.txt","w"))==NULL)
    {
        exit(0);
    }
    if((f=fopen("add.txt","r"))==NULL)
    {
        exit(0);
    }
}

```

```

        system("cls");
        printf("Enter the Room Number of the hotel to be deleted
from the database: \n");
        scanf("%s",&roomno);
        while(fread(&info,sizeof(info),1,f)==1)
        {
            if(strcmp(info.roomno,roomno)==0)
            {
                i=0;
                continue;
            }
            else
            {
                fwrite(&info,sizeof(info),1,t);
            }
        }
        if(i==1)
        {
            printf("\n\n Records of Customer in this Room
number is not found!!");
            getch();
            fclose(f);
            fclose(t);
            main();
        }
        fclose(f);
        fclose(t);
        remove("add.txt");//new
        rename("temp.txt","add.txt");//new
        printf("\n\nThe Customer is successfully removed....");
        fclose(f);
        fclose(t);
        getch();
    }

void search()
{
    system("cls");

```

```

FILE *f;
char roomno[20];
int flag=1;
f=fopen("add.txt","r+");
if(f==0)
{
    exit(0);
}
printf("Enter Room number of the customer to search its
details: \n");
scanf("%s", roomno);
while(fread(&info,sizeof(info),1,f)==1)
{
    if(strcmp(info.roomno,roomno)==0)
    {
        flag=0;
        printf("\n\tRecord Found\n ");
        printf("\nRoom Number: \t%s",info.roomno);
        printf("\nName:\t%s",info.name);
        printf("\nPhone number:\t%d",info.phoneno);
        printf("\nEmail:\t%s",info.email);
        printf("\nArrival
date:\t%d",info.arrivaldate);
        printf("\nDeparture
date:\t%d",info.departuredate);
        flag=0;
        break;
    }
}
if(flag==1)
{
    printf("\n\tRequested Customer could not be
found!");
}
getch();
fclose(f);
}

void edit()

```

```

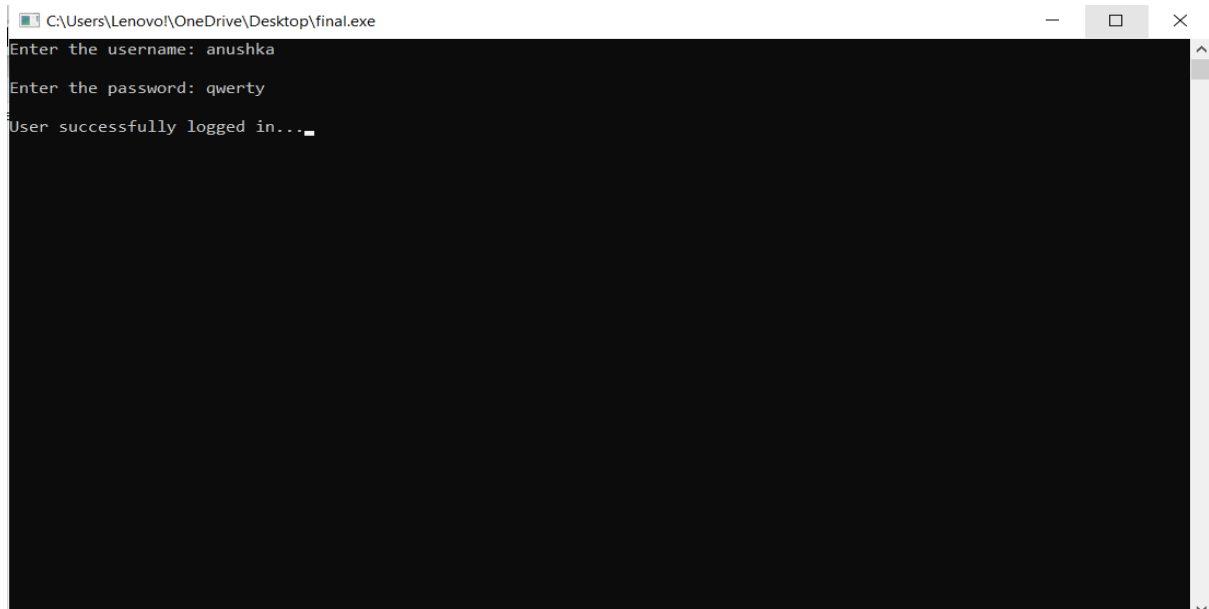
{
    FILE *f;
    int k=1;
    char room[20];
    long int size=sizeof(info);
    if((f=fopen("add.txt","r+"))==NULL)
    {
        exit(0);
    }
    system("cls");
    printf("\nEnter Room number of the customer to edit:");
    scanf("%s",room);
    while(fread(&info,sizeof(info),1,f)==1)
    {
        if(strcmp(info.roomno,room)==0)
        {
            k=0;
            printf("\nEnter Room Number:");
            scanf("%s",info.roomno);
            printf("\nEnter Name:");
            scanf("%s",info.name);
            printf("\nEnter Phone Number:");
            scanf("%d",info.phoneno);
            printf("\nEnter Email:");
            scanf("%s",info.email);
            printf("\nEnter Arrival date(dd\\mm\\yyyy):");
            scanf("%d",&info.arrivaldate);
            printf("\nEnter Departure date(dd\\mm\\yyyy):");
            scanf("%d",&info.departuredate);
            fseek(f,size,SEEK_CUR); //to go to desired
position in file
            fwrite(&info,sizeof(info),1,f);
            break;
        }
    }
    if(k==1){
        printf("\n\nTHE RECORD DOESN'T EXIST!!!!");
    }
}

```

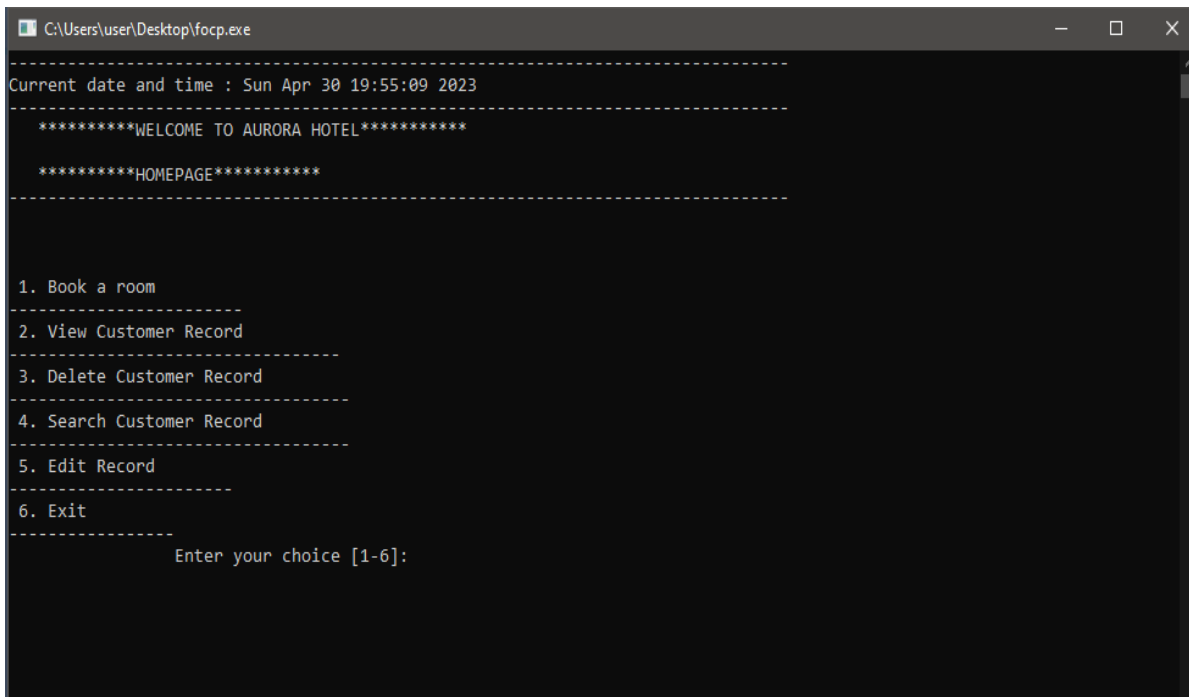
```
        fclose(f);  
        getch();  
    }else{  
        fclose(f);  
        printf("\n\n\t\tYOUR RECORD IS SUCCESSFULLY EDITED!!!");  
        getch();  
    }  
}
```

## IMPLEMENTATION OF THE CODE

### 1. Logging into the system-



## 2. Viewing the homepage-



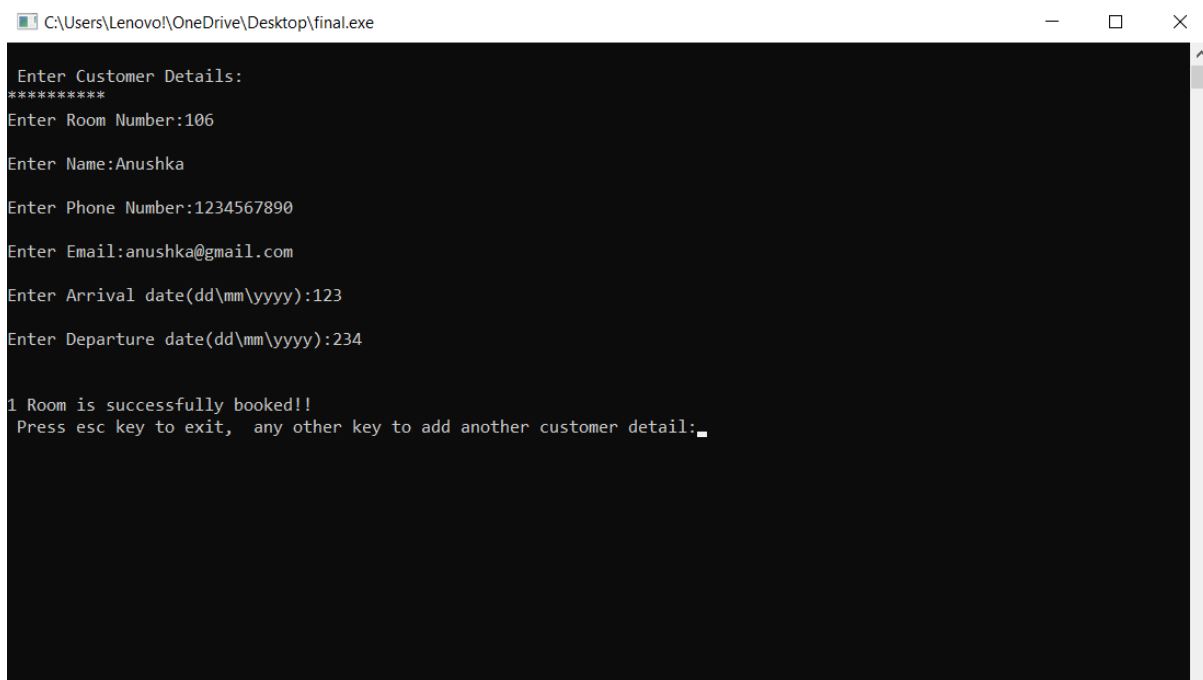
```
C:\Users\user\Desktop\focp.exe

-----
Current date and time : Sun Apr 30 19:55:09 2023
-----
*****WELCOME TO AURORA HOTEL*****

*****HOMEPAGE*****
-----

1. Book a room
-----
2. View Customer Record
-----
3. Delete Customer Record
-----
4. Search Customer Record
-----
5. Edit Record
-----
6. Exit
-----
Enter your choice [1-6]:
```

## 3. Booking a room-



```
C:\Users\Lenovo\OneDrive\Desktop\final.exe

Enter Customer Details:
*****
Enter Room Number:106

Enter Name:Anushka

Enter Phone Number:1234567890

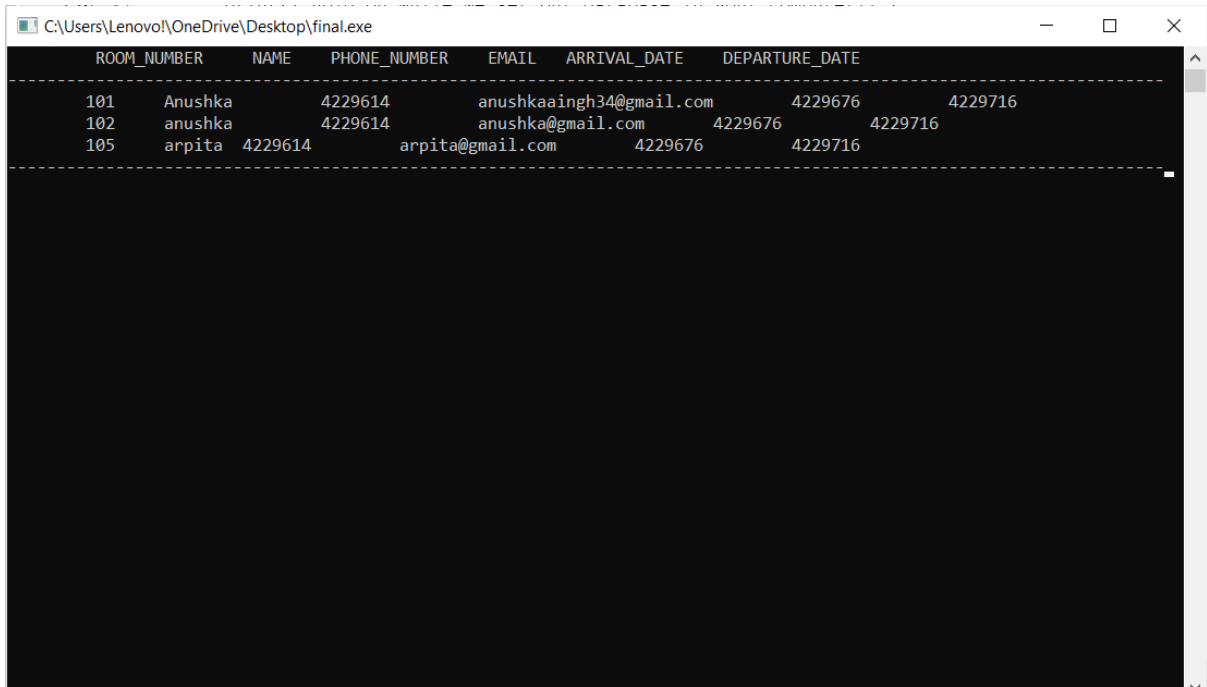
Enter Email:anushka@gmail.com

Enter Arrival date(dd\mm\yyyy):123

Enter Departure date(dd\mm\yyyy):234

1 Room is successfully booked!!
Press esc key to exit, any other key to add another customer detail: _
```

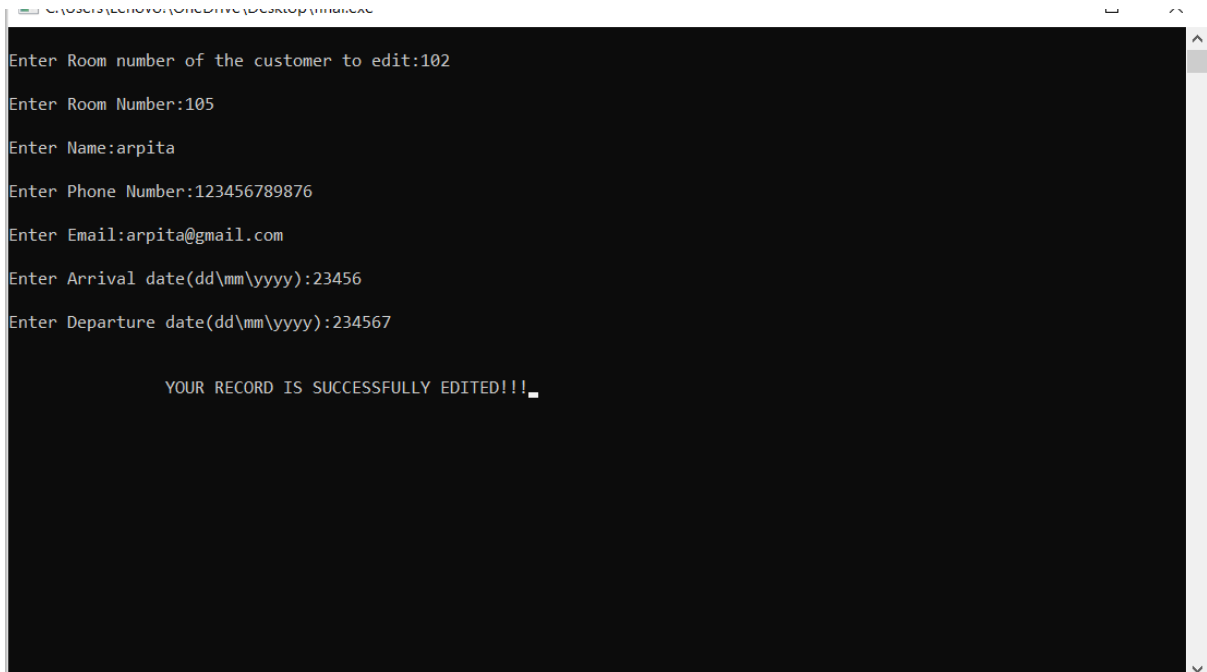
#### 4. Viewing the Customer details-



The screenshot shows a Windows application window with a title bar containing the file path 'C:\Users\Lenovo\OneDrive\Desktop\final.exe'. The window displays a table with the following columns: ROOM\_NUMBER, NAME, PHONE\_NUMBER, EMAIL, ARRIVAL\_DATE, and DEPARTURE\_DATE. The table contains three rows of data, with the last row highlighted in blue.

ROOM_NUMBER	NAME	PHONE_NUMBER	EMAIL	ARRIVAL_DATE	DEPARTURE_DATE
101	Anushka	4229614	anushkaaingh34@gmail.com	4229676	4229716
102	anushka	4229614	anushka@gmail.com	4229676	4229716
105	arpita	4229614	arpita@gmail.com	4229676	4229716

#### 5. Searching the Customer details-



The screenshot shows a Windows application window with a title bar containing the file path 'C:\Users\Lenovo\OneDrive\Desktop\final.exe'. The window displays a search and edit interface. The user has entered '102' for the room number to edit. The interface prompts the user to enter the room number, name, phone number, email, arrival date, and departure date. The user has entered 'arpita' for the name, '123456789876' for the phone number, 'arpita@gmail.com' for the email, '23456' for the arrival date, and '234567' for the departure date. The message 'YOUR RECORD IS SUCCESSFULLY EDITED!!!' is displayed.

Enter Room number of the customer to edit:102

Enter Room Number:105

Enter Name:arpita

Enter Phone Number:123456789876

Enter Email:arpita@gmail.com

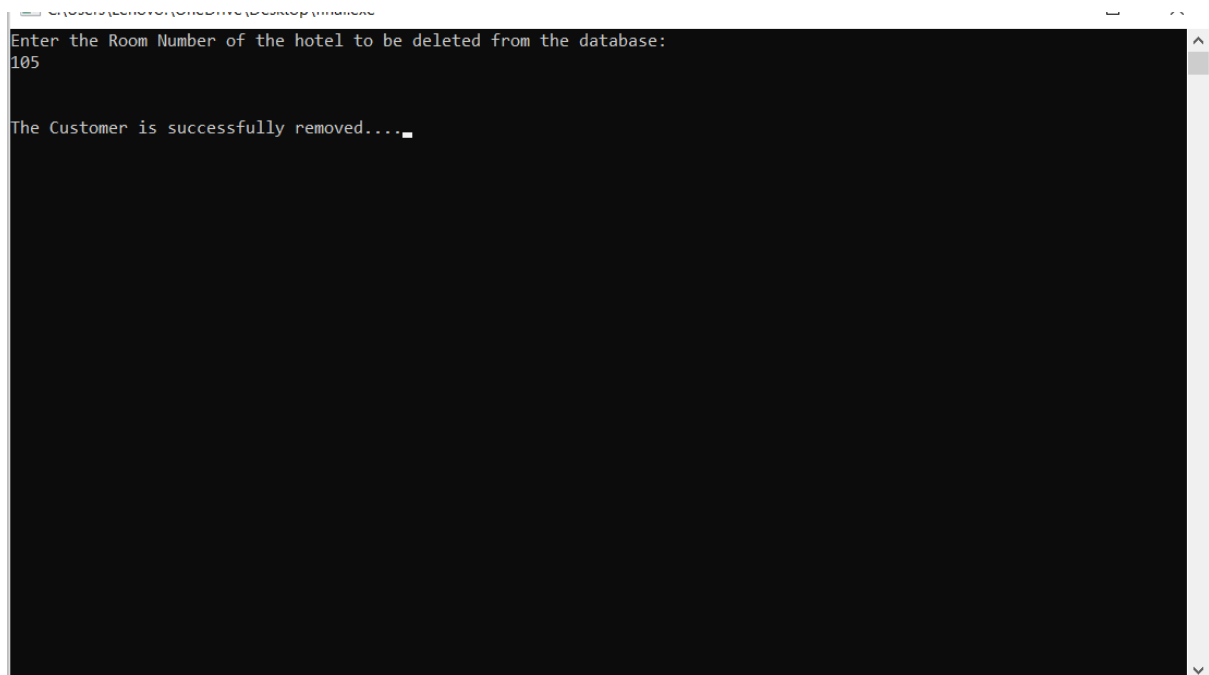
Enter Arrival date(dd\mm\yyyy):23456

Enter Departure date(dd\mm\yyyy):234567

YOUR RECORD IS SUCCESSFULLY EDITED!!!

#### 6. Deleting a customer record-

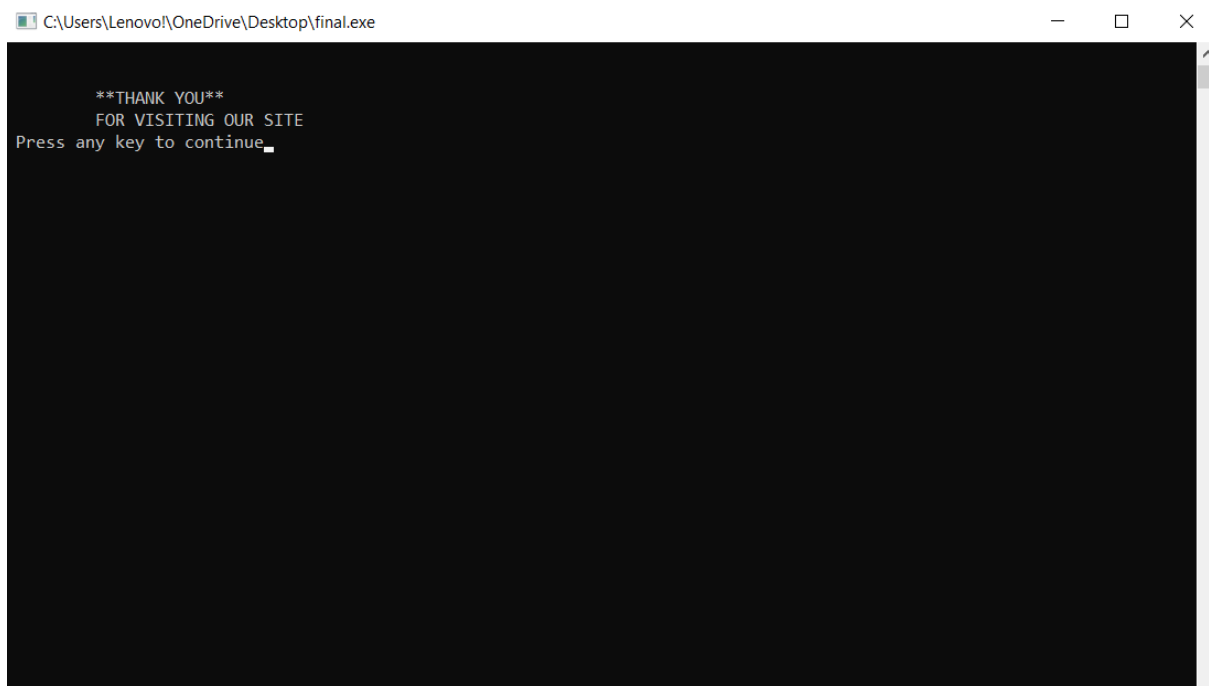




```
C:\Users\Lenovo\OneDrive\Desktop\final.exe
Enter the Room Number of the hotel to be deleted from the database:
105

The Customer is successfully removed....
```

## 7. Exiting the system-



```
C:\Users\Lenovo\OneDrive\Desktop\final.exe

**THANK YOU**
FOR VISITING OUR SITE
Press any key to continue.
```

## REFERENCES

- <https://www.w3schools.com/c/index.php>
- <https://code-projects.org/hotel-management-system-c-programming-source-code/>
- <https://www.javatpoint.com/c-programming-language-tutorial>
- <https://www.programiz.com/c-programming>
- <https://www.geeksforgeeks.org/c-language-introduction/amp/>