



Hotel Management System

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For Fulfillment of,

CS 161 Programming Fundamentals

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➤ **Description:**

With Allah Almighty's blessing, I have successfully completed a programming fundamental project in which the application's users are the admin and manager, and no one else has access to the system. According to their duties, they can conduct and view various functions by inputting their login information as username and password.

➤ **User Stories**

User Stories of the hotel management system are explained below:

▪ **Admin:**

As an <Admin> I want to <Login> So that I can <Access System>

As an <Admin> I want to <Add Customer> So that I can <Allocate room to customer>

As an <Admin> I want to <View All Records> So that I can <Check new Customer Allocation>

As an <Admin> I want to <Have Customer Room ID> So that I can <Check Particular Room Status>

As an <Admin> I want to <Have Customer ID> So that I can <View Customer Information>

As an <Admin> I want to <Have Customer ID> So that I can <Edit Customer Record>

As an <Admin> I want to <Have Customer ID> So that I can <Delete Customer Record>

As an <Admin> I want to <Press Option> So that I can <Terminate Program Execution>

- **Manager:**

As a <Manager> I want to <Login> So that I can <Access System>

As a <Manager> I want to <Add Customer> So that I can <Manage Records>

As a <Manager> I want to <View All Records> So that I can <Allocate Free Room To Customer>

As a <Manager> I want to <Press Option> So that I can <Terminate Program Execution>

➤ **Users of Project:**

There are three users of my application:

- Admin
- Manager
- Customer

➤ **Functional Requirements:**

- To reserve a room.
- To view all room status.
- To view particular room information using Room ID.
- To view customer information using Customer ID.
- To edit existing customer data.
- To leave Room.
- To Exit Program.

➤ **Libraries:**

- `#include<iostream>`
- `#include<stdlib.h>`
- `#include<conio.h>`
- `#include<fstream>`
- `#include<string.h>`

➤ **Prototypes Of Project:**

// Prototypes Of HMS:

// Header:

```
void header();
```

// Admin Menu Hotel Management System:

```
void menu();
```

// Manager Menu Options:

```
void menu1();
```

// Admin/Manager Selection:

```
int admin();
```

// Adding Customer:

```
void add();
```

// Displaying Customer:

```
void display();
```

// Viewing Particular Room Status:

```
void particular_room();
```

// Viewing Particular Customer Information:

```
void particular_cus();
```

// Viewing Particular Customer:

```
void edit_cus();
```

// Delete Customer Info:

```
void delete_cus();
```

// End All Program Execution:

```
void finish();
```

// Main Driver Code:

```
int main();
```

➤ **Data Structure:**

```
// Constant Size:
    const int Max_Size = 20;

// Customer Detail Data Structure:
    char fname[Max_Size];
    char lname[Max_Size];
    char address[Max_Size];
    char phone[Max_Size];
    char room[Max_Size];
    char arr_date[Max_Size];
    char dep_date[Max_Size];
    char payment[Max_Size];
    char id[Max_Size];

// To Check Particular Room Status:
    string room_id;

// To Check Particular Customer Information:
    string customer_id;

// Edit Customer Record:
    char edit_fname[Max_Size];
    char edit_lname[Max_Size];
    char edit_address[Max_Size];
    char edit_phone[Max_Size];
    char edit_room[Max_Size];
    char edit_arr_date[Max_Size];
    char edit_dep_date[Max_Size];
    char edit_payment[Max_Size];
    char edit_id[Max_Size];

// To Edit Customer ID:
    string edit_customer_id;
```

```
// To Delete Customer ID:
    del_customer_id

// Checker for Main Loop:
    char check='Y';

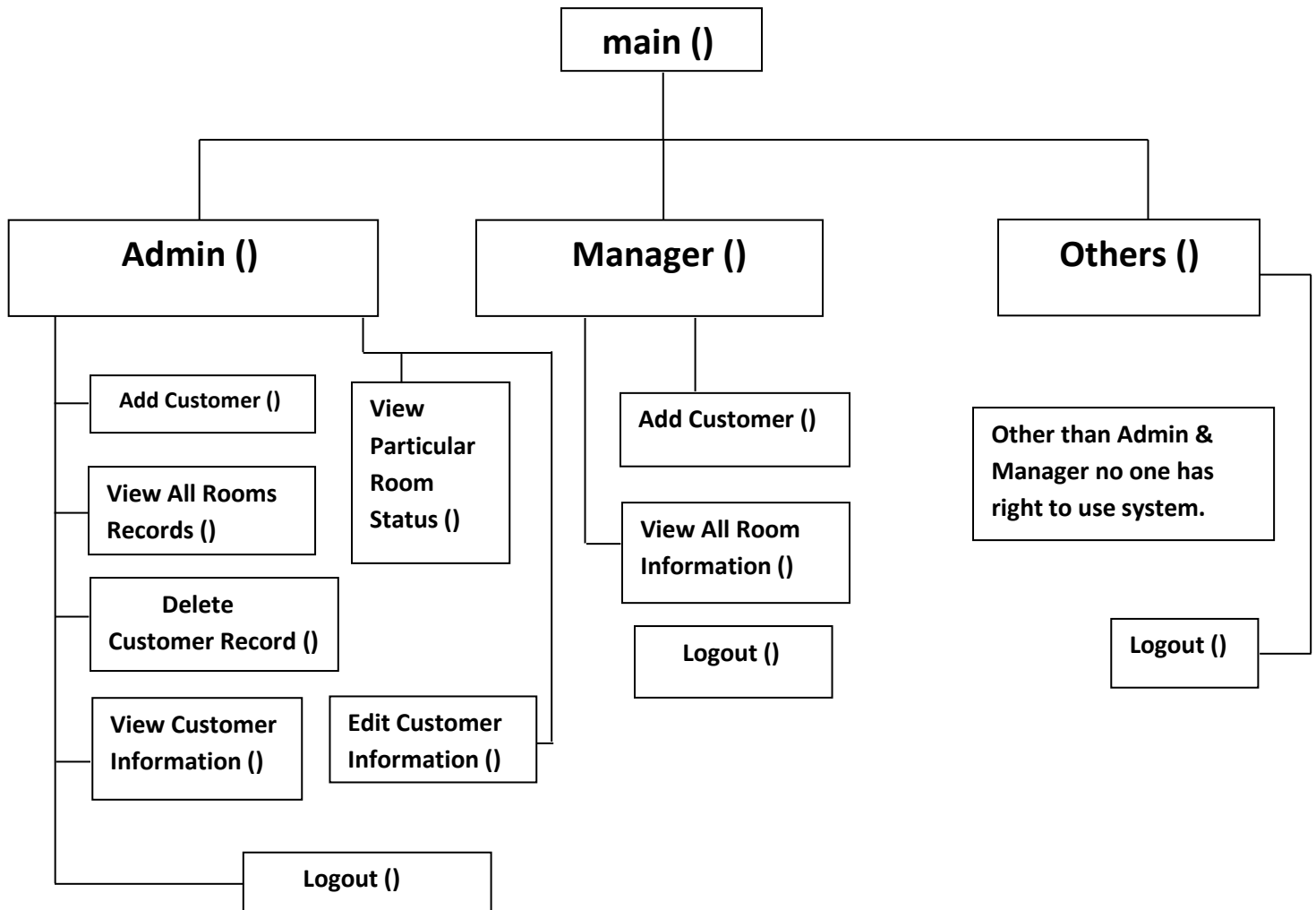
// To Get Admin/Manager/Other Type from Function:
    int a ;

// Loop Option
    char op;

// To Check User is Admin Or Manager:
    string ad;

//To Check Password:
    string pas;
```


➤ **Working Flow Chart:**



➤ **Main Panel:**

Hotel Management System Only Access by the Admin and Manager using **Admin Name** and **Password** or **Manager Name** and **Password**, Other than the admin and manager no one can access the system.

Test Cases:

```
*****
*                Hotel Management System                *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 For Admin Login
2- Press 2 For Manager Login
2- Press 3 For Others
-----

Press Given Option :
```

```
*****
*                               Hotel Management System                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 For Admin Login
2- Press 2 For Manager Login
3- Press 3 For Others

Press Given Option : 1
Enter Admin Name : Muatasnd
Enter Admin Password : wer3345r

-----Sorry !! You enter wrong LogIn Information-----
Do you want to press option again (Y/N) for Admin/Manager/Other :
```

```
*****
*                               Hotel Management System                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 For Admin Login
2- Press 2 For Manager Login
3- Press 3 For Others

Press Given Option : 2
Enter Manager Name : Sam
Enter Password : 123ser

-----Sorry !! You enter wrong LogIn Information-----
Do you want to press option again (Y/N) for Admin/Manager/Other : Y
```

Login Information Of Admin Panel

```
*****
*                Hotel Management System                *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 For Admin Login
2- Press 2 For Manager Login
2- Press 3 For Others
-----

Press Given Option : 1
Enter Admin Name : Mujtaba
Enter Admin Password : Admin123
```

Login Information Of Manager

```
*****
*                               *
*       Hotel Management System   *
*                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 For Admin Login
2- Press 2 For Manager Login
2- Press 3 For Others
-----

Press Given Option : 2
Enter Manager Name : Hassan
Enter Password      : manager123
```

Other Than Admin Or Manager
Panel

```
*****
*                               *
*       Hotel Management System   *
*                               *
*****

      WELCOME TO HOTEL MANAGEMENT PROJECT

      _____
      1- Press 1 For Admin Login
      2- Press 2 For Manager Login
      2- Press 3 For Others
      _____

Press Given Option : 3

-----SORRY YOU CANNOT USE SYSTEM-----

Sorry you are not autherized to use this System.

Do you want to press option again (Y/N) for Admin/Manager/Other :
```

Menu Options:

This is a very large function that consists of other sub-functions as adding, display, editing and deleting customer details from the file of hotel management system project in C++. Here, I will briefly describe each of these functions.

Menu option include seven parameters:

- 1) To reserve a room.
- 2) To view all room status.
- 3) To view particular room information using Room ID.
- 4) To view customer information using Customer ID.
- 5) To edit existing customer data.
- 6) To leave Room.
- 7) To Exit Program.

Admin Funtionality Panel View

```
*****
*           Hotel Management System           *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

-----
Enter option :
```


Manager Functionality Panel View

```
*****
*                Hotel Management System                *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to exit
-----

Select Your Option :
```

1- **Adding Customer:**

The information asked for by this function are name and address of the customer, and date, month and year of the customer's arrival

Adding Customer includes the following entites:

- First Name
- Second Name
- ID
- Phone No
- Room No.
- Arrival Date
- Departure Date
- Payment

Console Screen View:

```
*****
*                               Hotel Management System                               *
*****

      WELCOME TO HOTEL MANAGEMENT PROJECT

      _____
      1- Press 1 To reserve a room
      2- Press 2 to view all rooms status
      3- Press 3 to view room information
      4- Press 4 to view customer information
      5- Press 5 to edit the data
      6- Press 6 to leave the room
      7- Press 7 to exit

      _____
Select Your Option : 1
Main Menu > Add Customer

Enter Customer First Name ..... Adil
Enter Customer Second Name ..... Raza
Enter Customer ID ..... 2
Enter Customer Phone No..... 0313-45934456
Enter Room Number ..... 2
Enter Arrival Date.....(Format dd/mm/yyyy) 10/02/2021
Enter Departure Date.....(Format dd/mm/yyyy) 10/04/2021
Enter Customer Payment..... 12000

Do you want enter customer record again (Y/N):
```

2- Display All Customer:

This function displays the details of all the customers in the hotel. Information like customer name, id, address, room number and date are listed in a column form.

Console View Of All Customers:

```
WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

Select Your Option : 2

Customer Name ..... Sam Hassan
Customer ID ..... 1
Customer Phone No..... 0302-7133774
Room Number ..... 1
Arrival Date.....(Format dd/mm/yyyy) 01/12/2022
Departure Date.....(Format dd/mm/yyyy) 10/12/2022
Customer Payment..... 1200

Customer Name ..... Adil Raza
Customer ID ..... 2
Customer Phone No..... 0313-45934456
Room Number ..... 2
Arrival Date.....(Format dd/mm/yyyy) 10/02/2021
Departure Date.....(Format dd/mm/yyyy) 10/04/2021
Customer Payment..... 12000

Do you want to View All Customers record again (Y/N):
```

3- Particular Room Status:

This function display only particular room detail of the customer in the hotel. The info like customer number, name, address, room number and date are listed in a column form. Information based on the room id of the customer.

Consloe View Of Particular Room Status:

```
*****
*                               *
*           Hotel Management System           *
*                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

Select Your Option : 3
Enter Room ID to View record : 1

Customer Name ..... Sam Hassan
Customer ID ..... 1
Customer Phone No..... 0302-7133774
Room Number ..... 1
Arrival Date.....(Format dd/mm/yyyy) 01/12/2022
Departure Date.....(Format dd/mm/yyyy) 10/12/2022
Customer Payment..... 1200

Do you want to View Particular Room record again (Y/N):
```

Test Case:

```
Enter Room ID to View record : 12

Do you want to View Particular Room record again (Y/N): n
```

4- Particular Customer Status:

This function display only particular detail of the customer in the hotel.
Information based on the Customer Id of the customer.

Console View Of Particular Customer:

```
*****
*                               *
*       Hotel Management System   *
*                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

Select Your Option : 4
Enter Customer ID to View record : 1

Customer Name ..... Sam Hassan
Customer ID ..... 1
Customer Phone No..... 0302-7133774
Room Number ..... 1
Arrival Date.....(Format dd/mm/yyyy) 01/12/2022
Departure Date.....(Format dd/mm/yyyy) 10/12/2022
Customer Payment..... 1200

Do you want to View Particular Customer record again (Y/N):
```

Test Case:

```
Enter Customer ID to View record : 23

Do you want to View Particular Customer record again (Y/N):
```

5- Edit Customer Status:

To edit customer detail in hotel management system, Customer ID is needed from the user. Then, the name, address, date, month and year of arrival of a particular customer can be modified, and all the edited data are stored in file.

Console View Of Editing Customer Information:

```
1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

Select Your Option : 5
Enter Customer ID to edit record : 2

Main Manu > Edit Customer Detail:

Enter Customer First Name ..... Malik
Enter Customer Second Name ..... Imtaiz
Enter Customer ID ..... 2
Enter Customer Phone No..... 0317-6874945
Enter Room Number ..... 2
Enter Arrival Date.....(Format dd/mm/yyyy) 10/04/2022
Enter Departure Date.....(Format dd/mm/yyyy) 10/05/2022
Enter Customer Payment..... 13000

Do you want to edit Customer record again (Y/N):
```

Test Case:

```
Enter Customer ID to edit record : 45ret

Do you want to edit Customer record again (Y/N):
```

6- Leave Room:

For this, the user needs to provide room number of a particular customer whose record is to be deleted from the hotel management system file.

Console View Of Leaving Room:

```
*****
*                               *
*           Hotel Management System           *
*                               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit

Select Your Option : 6
Enter Customer ID to delete record : 2

Record Deleted..

Do you want to Delete Customer record again (Y/N):
```

Test Case:

```
Enter Customer ID to delete record : 13

Do you want to Delete Customer record again (Y/N): n
```


7- Terminate/Exit Program:

To terminate the whole program execution, this option will be helpful.

Console View Of Termination Of Program:

```
*****
*               Hotel Management System               *
*****

WELCOME TO HOTEL MANAGEMENT PROJECT

-----
1- Press 1 To reserve a room
2- Press 2 to view all rooms status
3- Press 3 to view room information
4- Press 4 to view customer information
5- Press 5 to edit the data
6- Press 6 to leave the room
7- Press 7 to exit
-----

Enter option : 7

-----Program Ended Successfully.-----
-----Have a Good Day.-----

Do you want to press option again (Y/N) for Admin Or Other : n

Program ended Successfully...
-----
Process exited after 85.41 seconds with return value 0
Press any key to continue . . .
```

Code Of Project

```
#include<iostream>
```

```
#include<stdlib.h>
```

```
#include<conio.h>
```

```
#include<fstream>
```

```
#include<string.h>
```

```
using namespace std;
```

```
// Prototypes Of HMS:
```

```
// Header:
```

```
void header();
```

```
// Admin Menu Hotel Management System:
```

```
void menu();
```

```
// Manager Menu Options:
```

```
void menu1();
```

```
// Admin/Manager Selection:
```

```
int admin();
```

```
// Adding Customer:
```

```
void add();
```

```
// Displaying Customer:
```

```
void display();

// Viewing Particular Room Status:

void particular_room();

// Viewing Particular Customer Information:

void particular_cus();

// Viewing Particular Customer:

void edit_cus();

// Delete Customer Info:

void delete_cus();

// End All Program Execution:

void finish();

// Main Driver Code:

int main();


// Globle Variables:

    const int Max_Size = 20;

    char fname[Max_Size];

    char lname[Max_Size];

    char address[Max_Size];

    char phone[Max_Size];

    char room[Max_Size];

    char arr_date[Max_Size];
```

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```
    char dep_date[Max_Size];

    char payment[Max_Size];

    char id[Max_Size];


// Header:

void header()

{

    // Header of HMS:

    cout << "*****" <<
endl;

    cout << "          Hotel Management System          *" << endl;

    cout << "*****" <<
endl;

}


// Menu HMS:

void menu()

{

    // Menu Options:

    cout<<"\n\t\tWELCOME TO HOTEL MANAGEMENT PROJECT\n ";
```

```
    cout<<"\t\t_____ ";
    cout<<"\n\t\t1- Press 1 To reserve a room      ";
    cout<<"\n\t\t2- Press 2 to view all rooms status  ";
    cout<<"\n\t\t3- Press 3 to view room information  ";
    cout<<"\n\t\t4- Press 4 to view customer information";
    cout<<"\n\t\t5- Press 5 to edit the data          ";
    cout<<"\n\t\t6- Press 6 to leave the room          ";
    cout<<"\n\t\t7- Press 7 to exit                      ";
    cout<<"\n\t\t_____ ";
}
```

// For Manager Option:

```
void menu1()
{
    // Menu Options:
    cout<<"\n\t\tWELCOME TO HOTEL MANAGEMENT PROJECT\n ";
    cout<<"\t\t_____ ";
    cout<<"\n\t\t1- Press 1 To reserve a room      ";
    cout<<"\n\t\t2- Press 2 to view all rooms status  ";
    cout<<"\n\t\t3- Press 3 to exit                      ";
    cout<<"\n\t\t_____ \n";
}
```

// To Select the Login ID:

```
int admin()
{
    int r;

    cout<<"\n\tWELCOME TO HOTEL MANAGEMENT PROJECT\n ";

    cout<<"\t\t_____ ";

    cout<<"\n\t1- Press 1 For Admin Login ";

    cout<<"\n\t2- Press 2 For Manager Login ";

    cout<<"\n\t3- Press 3 For Others ";

    cout<<"\n\t\t_____ ";


    cout << "\n\nPress Given Option : ";

    cin >> r;
```

// If Condition for Admin:

```
if(r== 1)
{
    return 1;
}
```

// If Condition for Manager:

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```
        if (r==2)
        {
            return 2;
        }

// If Condition for Others:

        if (r==3)
        {
            cout << "\n-----SORRY YOU CANNOT USE SYSTEM-----"<<endl;
            return 3;
        }

    }

// Add Customer:

void add()
{
    char ch = 'y';

    while(ch == 'Y' || ch == 'y')
    {
```

// Geting Information:

```
cin.ignore();

cout << "Main Menu > Add Customer \n\n";

cout << "\nEnter Customer First Name ..... " ;

cin.getline(fname,Max_Size);

cout << "Enter Customer Second Name ..... " ;

cin.getline(lname,Max_Size);

cout << "Enter Customer ID ..... " ;

cin.getline(id,Max_Size);

cout << "Enter Customer Phone No..... " ;

cin.getline(phone,Max_Size);

cout << "Enter Room Number ..... " ;

cin.getline(room, Max_Size);

cout << "Enter Arrival Date.....(Format dd/mm/yyyy) " ;

cin.getline(arr_date,Max_Size);

cout << "Enter Departure Date.....(Format dd/mm/yyyy) " ;

cin.getline(dep_date, Max_Size);

cout << "Enter Customer Payment..... " ;

cin.getline(payment,Max_Size);
```

// To Write in file:

```
ofstream wdata;
```



```
wdata.open("test.txt", ios :: app);
```

```
wdata << fname << endl;
```

```
wdata << lname << endl;
```

```
wdata << id << endl;
```

```
wdata << phone << endl;
```

```
wdata << room << endl;
```

```
wdata << arr_date << endl;
```

```
wdata << dep_date << endl;
```

```
wdata << payment << endl;
```

```
wdata.close();
```

```
// To Take Record Again:
```

```
cout << "\nDo you want enter customer record again (Y/N): ";
```

```
cin >> ch;
```

```
// System CLS:
```

```
system("cls");
```

```
if(ch != 'y' && ch != 'Y')
```

```
{
```

```
    break;
```

```
}
```

```
        }

    }

// Display All Customer Records:
void display()
{
    char ch = 'y';

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

        // Read from File:

        fstream rdata;
        rdata.open("test.txt");
        cin.ignore();
        rdata >> fname;
        rdata >> lname;
        rdata >> id;
        rdata >> phone;
```

```
        rdata>> room;

        rdata>>arr_date;

        rdata>>dep_date;

        rdata >> payment;


    while (!rdata.eof())
    {
        // Display Records:

        cout << "\nCustomer Name ..... " << fname <<" "<<lname
<<endl;

        cout << "Customer ID ..... " << id    <<endl;

        cout << "Customer Phone No..... " << phone    <<endl;

        cout << "Room Number ..... " << room    <<endl;

        cout << "Arrival Date.....(Format dd/mm/yyyy) " << arr_date <<endl;

        cout << "Departure Date.....(Format dd/mm/yyyy) " << dep_date <<endl;

        cout << "Customer Payment..... " << payment <<endl;


        // Read From File:

        rdata >> fname;

        rdata >> lname;

        rdata >> id;
```

```
        rdata >> phone;

        rdata >> room;

        rdata >> arr_date;

        rdata >> dep_date;

        rdata >> payment;

    }

    rdata.close();
```

// To View All Customers Record again:

```
        cout << "\nDo you want to View All Customers record again (Y/N): ";

        cin >> ch;

        system("cls");

        if(ch != 'y' && ch != 'Y')

        {

            break;

        }

    }
```

```
}
```

```
// View Particular Room Information :
```

```
void particular_room()
```

```
{
```

```
    char ch = 'y';
```

```
    while(ch == 'Y' || ch == 'y')
```

```
    {
```

```
        string room_id;
```

```
        cout << "Enter Room ID to View record : ";
```

```
        cin >> room_id;
```

```
        cout << endl;
```

```
    // ifstream to read from file:
```

```
        ifstream rdata;
```

```
        rdata.open("test.txt");
```

```
    // ofstream to write in file:
```

```
        ofstream wdata;
```

```
        wdata.open("new.txt");
```

```
// Read from file:
```

```
    rdata >> fname;  
    rdata >> lname;  
    rdata >> id;  
    rdata >> phone;  
    rdata >> room;  
    rdata >> arr_date;  
    rdata >> dep_date;  
    rdata >> payment;
```

```
// While Loop:
```

```
    while (!rdata.eof())  
    {  
        if(room != room_id)  
        {  
  
            wdata << fname    << endl;  
            wdata << lname    << endl;  
            wdata << id       << endl;
```

```
wdata << phone    << endl;

wdata << room     << endl;

wdata << arr_date  << endl;

wdata << dep_date  << endl;

wdata << payment   << endl;

    }

else if (room == room_id)

{

    // Customer Record:

    cout << "Customer Name ..... " << fname << "
" << lname << endl;

    cout << "Customer ID ..... " << id    << endl;

    cout << "Customer Phone No..... " << phone

<< endl;

    cout << "Room Number ..... " << room

<< endl;

    cout << "Arrival Date.....(Format dd/mm/yyyy) " <<

arr_date << endl;

    cout << "Departure Date.....(Format dd/mm/yyyy) " <<

dep_date << endl;
```

```
cout << "Customer Payment..... " << payment  
<<endl;
```

```
// Write to file
```

```
wdata << fname    << endl;  
wdata << lname    << endl;  
wdata << id       << endl;  
wdata << phone    << endl;  
wdata << room     << endl;  
wdata << arr_date << endl;  
wdata << dep_date << endl;  
wdata << payment  << endl;
```

```
}
```

```
// Read from File:
```

```
rdata >> fname;  
rdata >> lname;  
rdata >> id;  
rdata >> phone;  
rdata >> room;  
rdata >> arr_date;  
rdata >> dep_date;  
rdata >> payment;
```



```
        }

        wdata.close();

        rdata.close();

// Removing test.txt File

        remove("test.txt") != 0;

// Renaming new.txt file to test.txt file:

        rename("new.txt", "test.txt") != 0;

        cout << "\nDo you want to View Peticular Room record again (Y/N): ";

        cin >> ch;

        system("cls");

        if(ch != 'y' && ch != 'Y')

        {

                break;

        }

    }

}
```

// View Particular Customer Information :

void particular_cus()

{

 char ch = 'y';

 string customer_id;

 while(ch == 'Y' || ch == 'y')

 {

 // Enter Customer ID:

 cout << "Enter Customer ID to View record : ";

 cin >> customer_id;

 cout << endl;

 // Read to File:

 ifstream rdata;

 rdata.open("test.txt");

 // Write to File:

 ofstream wdata;

 wdata.open("new.txt");

 // Read From File:

 rdata >> fname;

```
    rdata >> lname;  
    rdata >> id;  
    rdata >> phone;  
    rdata >> room;  
    rdata >> arr_date;  
    rdata >> dep_date;  
    rdata >> payment;
```

// While Loop:

```
    while (!rdata.eof())  
    {
```

// IF Condition:

```
        if(id != customer_id)  
        {
```

// Write to File:

```
            wdata << fname    << endl;  
            wdata << lname    << endl;  
            wdata << id       << endl;  
            wdata << phone    << endl;  
            wdata << room     << endl;
```

```
        wdata << arr_date << endl;

        wdata << dep_date << endl;

        wdata << payment << endl;

    }

// Else Condition:

        else if (id == customer_id)
        {

                cout << "Customer Name ..... " << fname << "
" << lname << endl;

                cout << "Customer ID ..... " << id << endl;

                cout << "Customer Phone No..... " << phone
<< endl;

                cout << "Room Number ..... " << room
<< endl;

                cout << "Arrival Date.....(Format dd/mm/yyyy) " <<
arr_date << endl;

                cout << "Departure Date.....(Format dd/mm/yyyy) " <<
dep_date << endl;

                cout << "Customer Payment..... " << payment
<< endl;

// Write to File:

        wdata << fname << endl;
```

```
        wdata << lname      << endl;
        wdata << id        << endl;
        wdata << address   << endl;
        wdata << phone     << endl;
        wdata << room      << endl;
        wdata << arr_date  << endl;
        wdata << dep_date  << endl;
        wdata << payment   << endl;

    }
```

// Read to File:

```
        rdata >> fname;
        rdata >> lname;
        rdata >> id;
        rdata >> phone;
        rdata >> room;
        rdata >> arr_date;
        rdata >> dep_date;
        rdata >> payment;

    }
```

```
wdata.close();

rdata.close();


// Remove test.txt File

remove("test.txt") != 0;


// Rename new.txt to test.txt file:

rename("new.txt", "test.txt") != 0;


// To View Particular Record Again:

cout << "\nDo you want to View Particular Customer record again (Y/N):
";

cin >> ch;

system("cls");


// IF Condition:

if(ch != 'y' && ch != 'Y')
{
    break;
}

}

}
```

```
// Edit Customer Information:
```

```
void edit_cus()
```

```
{
```

```
    char ch = 'y';
```

```
    string edit_customer_id;
```

```
    while(ch == 'Y' || ch == 'y')
```

```
    {
```

```
        char edit_fname[Max_Size];
```

```
        char edit_lname[Max_Size];
```

```
        char edit_address[Max_Size];
```

```
        char edit_phone[Max_Size];
```

```
        char edit_room[Max_Size];
```

```
        char edit_arr_date[Max_Size];
```

```
        char edit_dep_date[Max_Size];
```

```
        char edit_payment[Max_Size];
```

```
        char edit_id[Max_Size];
```

```
    // Enter Customer ID:
```

```
        cout <<"Enter Customer ID to edit record : ";
```

```
        cin >> edit_customer_id;

        cout << endl;

// ifstream :

        ifstream rdata;

        rdata.open("test.txt");

// ofstream :

        ofstream wdata;

        wdata.open("new.txt");

// Read to File:

        rdata >> fname;

        rdata >> lname;

        rdata >> id;

        rdata >> phone;

        rdata >> room;

        rdata >> arr_date;

        rdata >> dep_date;

        rdata >> payment;
```


// While Loop:

```
while (!rdata.eof())  
{
```

// IF Condition:

```
if(id != edit_customer_id)  
{
```

// Write to file:

```
wdata << fname    << endl;  
wdata << lname    << endl;  
wdata << id       << endl;  
wdata << phone    << endl;  
wdata << room     << endl;  
wdata << arr_date << endl;  
wdata << dep_date << endl;  
wdata << payment  << endl;  
  
}
```

```
// Else If Condition:
```

```
    else if (id == edit_customer_id)
```

```
    {
```

```
        // Edit Customer Record :
```

```
        cin.ignore();
```

```
        cout << "Main Menu > Edit Customer Detail: \n\n";
```

```
        cout << "\nEnter Customer First Name ..... " ;
```

```
        cin.getline(edit_fname,Max_Size);
```

```
        cout << "Enter Customer Second Name ..... " ;
```

```
        cin.getline(edit_lname,Max_Size);
```

```
        cout << "Enter Customer ID ..... " ;
```

```
        cin.getline(edit_id,Max_Size);
```

```
        cout << "Enter Customer Phone No..... " ;
```

```
        cin.getline(edit_phone,Max_Size);
```

```
        cout << "Enter Room Number ..... " ;
```

```
        cin.getline(edit_room, Max_Size);
```

```
        cout << "Enter Arrival Date.....(Format dd/mm/yyyy) " ;
```

```
        cin.getline(edit_arr_date,Max_Size);
```

```
        cout << "Enter Departure Date.....(Format dd/mm/yyyy) " ;
```

```
        cin.getline(edit_dep_date, Max_Size);
```

```
        cout << "Enter Customer Payment..... " ;
```

```
cin.getline(edit_payment,Max_Size);
```

```
// Write to File:
```

```
    wdata << edit_fname    << endl;
    wdata << edit_lname    << endl;
    wdata << edit_id       << endl;
    wdata << edit_phone    << endl;
    wdata << edit_room     << endl;
    wdata << edit_arr_date << endl;
    wdata << edit_dep_date << endl;
    wdata << edit_payment  << endl;
}
```

```
// Read to File:
```

```
    rdata >> fname;
    rdata >> lname;
    rdata >> id;
    rdata >> phone;
    rdata >> room;
    rdata >> arr_date;
    rdata >> dep_date;
    rdata >> payment;
```

```
        }

        wdata.close();

        rdata.close();

// Remove test.txt file:

        remove("test.txt") != 0;

// Rename new.txt to test.txt

        rename("new.txt", "test.txt") != 0;

        cout << "\nDo you want to edit Customer record again (Y/N): ";

        cin >> ch;

        system("cls");

// If Condition to Break the loop:

        if(ch != 'y' && ch != 'Y')

        {

                break;

        }

    }

}
```

// Delete Customer Record :

void delete_cus()

{

 // Default Set to Yes:

 char ch = 'y';

 string del_customer_id;

 // While Loop:

 while(ch == 'Y' || ch == 'y')

 {

 // Taking ID to Delete Record:

 cout << "Enter Customer ID to delete record : ";

 cin >> del_customer_id;

 // ifstream :

 ifstream rdata;

 rdata.open("test.txt");

 // ofstream :

 ofstream wdata;

```
wdata.open("new.txt");
```

```
    rdata >> fname;
```

```
    rdata >> lname;
```

```
    rdata >> id;
```

```
    rdata >> phone;
```

```
    rdata >> room;
```

```
    rdata >> arr_date;
```

```
    rdata >> dep_date;
```

```
    rdata >> payment;
```

```
// While Loop:
```

```
while (!rdata.eof())
```

```
{
```

```
    // If Conditon:
```

```
        if(id != del_customer_id)
```

```
        {
```

```
            // Write to file:
```

```
        wdata << fname    << endl;
        wdata << lname    << endl;
        wdata << id       << endl;
        wdata << phone     << endl;
        wdata << room      << endl;
        wdata << arr_date  << endl;
        wdata << dep_date  << endl;
        wdata << payment   << endl;

    }

// Else If Conditon:

    else if (id == del_customer_id)
    {
        cout << "\nRecord Deleted..\n";
    }

// Read to File

    rdata >> fname;
    rdata >> lname;
    rdata >> id;
    rdata >> phone;
```

```
        rdata >> room;

        rdata >> arr_date;

        rdata >> dep_date;

        rdata >> payment;

    }

    wdata.close();

    rdata.close();

// Remove test.txt File:

    remove("test.txt") != 0;

// Rename new.txt to test.txt:

    rename("new.txt", "test.txt") != 0;

// To Delete Customer Record:

    cout << "\nDo you want to Delete Customer record again (Y/N): ";

    cin >> ch;

    system("cls");

// If Condition:
```



```
                if(ch != 'y' && ch != 'Y')
                {
                        break;
                }

        }

}

// Finish Program Execution:

void finish()
{

        // To Finish All Program Execution:

                cout << "\n\n-----Program Ended Successfully.-----\n";
                cout << "-----Have a Good Day.-----";

}

// Main Driver Code :

int main()
```

Hotel Management System - HMS

```
{  
  
// Main Driver Code DataTypes:  
  
  
// Loop Option  
  
char op;  
  
  
// To Get Admin/Manager/Other Type from Function:  
  
    int a ;  
  
  
// Checker for Main Loop:  
  
    char check='Y';  
  
  
// To Check User is Admin Or Manager:  
  
    string ad, pas;  
  
  
  
// While Loop:  
  
    while (check == 'Y' || check == 'y')  
    {  
  
  
        // Header:  
  
        header();
```

```
// Check Admin Panel:

a = admin();

// Conditon To Check For Admin:

if (a == 1)
{
    cout << "Enter Admin Name : ";
    cin >> ad;
    cout << "Enter Admin Password : ";
    cin >> pas;
    cout << endl<< endl;

// IF Condition For Admin:

    if (ad != "Mujtaba" && pas != "admin123")
    {
        cout << "-----Sorry !! You enter wrong LogIn Information-----\n";
    }

// While Loop For Admin Panel:

    while(ad == "Mujtaba" && pas == "admin123")
```

```
{  
    system("cls");  
  
// Main Loop:  
    loop:  
  
// Header:  
    header();  
  
//Menu :  
    menu();  
  
// Select Option:  
    cout << "\nSelect Your Option : ";  
    cin >> op;  
  
// While Loop:  
    while (op == '1' || op == '2' || op == '3' || op == '4' || op == '5' || op == '6' || op == '7' )  
    {  
        // Switch in Loop:  
  
        switch(op)
```

Hotel Management System - HMS

```
{
```

```
// Cases:
```

```
//To Add Customer:
```

```
case '1' :
```

```
{
```

```
    add();
```

```
    goto loop;
```

```
    break;
```

```
}
```

```
//      Display All Rooms Status:
```

```
case '2':
```

```
{
```

```
    display();
```

```
    goto loop;
```

```
    break;
```

```
    }

//      To View Peticualr Room Information :
case '3':

    {

        perticular_room();

        goto loop;

        break;

    }

//      To View Peticular Customer Record:
case '4':

    {

        perticular_cus();

        goto loop;

        break;

    }
```

```
//          Edit Customer Information :
```

```
case '5':
```

```
{
```

```
    edit_cus();
```

```
    goto loop;
```

```
    break;
```

```
}
```

```
//          Delete Particular Record
```

```
case '6':
```

```
{
```

```
    delete_cus();
```

```
    goto loop;
```

```
    break;
```

```
}
```

```
// To Finish Program Execution:
```

```
case '7':
```

```
        {
            finish();
            return 0;
        }

        break;
    }

}

}

}

}

// Manager Panel:
if (a == 2)
{
    // Taking Manager Name and Password:

    cout << "Enter Manager Name : ";
    cin >> ad;
```



```
// Password:

    cout << "Enter Password    : ";

    cin >> pas;

    cout << endl<< endl;


// If Condition to Check Manager:

    if (ad != "Hassan" && pas != "manager123")

    {

        cout << "-----Sorry !! You enter wrong LogIn Information-----\n";

    }


// While Loop:

    while(ad == "Hassan" && pas == "manager123")

    {

        // System Cls:

        system("cls");


        // Loop1:

        loop1 :


        // Header:

        header();
```

```
// Menu:

    menu1();

// Options:

    cout << "\nSelect Your Option : ";

    cin >> op;

// While Loop:

    while (op == '1' || op == '2' || op == '3')
    {
        // Switch Option :

        switch(op)
        {
// Cases:

            // To Add Customer:

                case '1' :

                    {

                        add();

                        goto loop1;

                        break;

                    }

            // To Display All Customers:
```

```
        case '2' :  
            {  
                display();  
                goto loop1;  
                break;  
            }  
        // To Finish Program Execution:  
        case '3' :  
            {  
                finish();  
                return 0;  
            }  
        }  
    }  
}  
  
// IF Condition For Other Than Admin & Manager:  
if (a == 3)  
{
```

```
        cout << "\nSorry you are not authorized to use this System.\n";
    }

// To Select The Option Again After Wrong Entering Information:

    cout << "\nDo you want to press option again (Y/N) for Admin/Manager/Other : ";

    cin >> check;

    cout << endl << endl;

// System CLS:

    system("cls");

}

// IF Condition to End Whole Program Execution:

    if(check != 'Y' || check != 'y')
    {
        cout << "\nProgram ended Successfully... ";
    }

    return 0;

}
```
