MADHAV INSTITUTE OF TECHNOLOGY &SCIENCE

(A Govt Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Skills Based Project Report

on

Hotel Management System

Submitted By:

Kaushal Agarwal

(0901CA211027)

Mentor:

Dr. Anshu Chaturvedi

(Professor)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Gwalior – 474005 (MP) est.1957

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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

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CERTIFICATE

This is certified that **Kaushal Agarwal (0901CA211027)** has submitted the project report titled **Hotel Management System** under the mentorship of **Dr. Anshu Chaturvedi** (Professor), as the skills based mini project in 1st year of Master of Computer Application in Computer Science and Engineering from **Madhav Institute of Technology and Science, Gwalior**.

Dr. Anshu Chaturvedi
(Professor)
Computer Science and Engineering

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DECLARATION

I hereby declare that the work being presented in this project report, for the fulfilment of partial requirement of the skills based mini project in 1st year of Master of Computer Application in Computer Science and Engineering at **Madhav Institute of Technology & Science, Gwalior** is an authenticated and original record of my work under the mentorship of **Dr. Anshu Chaturvedi**, (Professor), MITS Gwalior.

I declare that I have not submitted the matter embodied in this report anywhere else.

Kaushal Agarwal
(0901CA211027)
2021-2023 Year,
Master of Computer Application,
Computer Science and Engineering

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Kaushal Agarwal
0901CA211027
2021-2023 Year,
Master of Computer Application,
Computer Science and Engineering

ABSTRACT

Hotel Management System have tried to show how the Data/information in hotels is managed. This is just an overview of management in hotels. This has been achieved by dividing the project into various modules. Customer is provided with different services like checking in, checking out, and editing entries or can be advance payments etc. Enquiry about any customer or employee can be made either by customer Id or customer name. Enquiry about rooms available can also be made. Our project also includes the module for employee information. It will generate reports for customer, employees (working in the hotel) and Bill for customer is generated when the customer will check out from the hotel.

We have included only few modules, as our purpose is to only have the idea or to study about how the management is done in hotels. By adding many more modules this type of project can have scope in various hotels. After going thought the existing system, problem was identified and the scope of development was finalized.

CONTENT

INTRODUCTION

Hotel Management System is a Application that allows the hotel manager to handle all hotel activities online. Interactive GUI and the ability to manage various hotel bookings and rooms make this system very flexible and convenient.

The hotel manager is a very busy person and does not have the time to sit and manage the entire activities manually on paper. This application gives him the power and flexibility to manage the entire system from a single online system.

Hotel management project provides Manage Rooms, Check-In, Get available rooms , Search customer, Check-out room, Get guest summary report and other necessary hotel management features. The system allows the manager to post available rooms in the system.

Customers can view and book room online. The system is hence useful for both customers and managers to portable manage the hotel activities.

Problem Defination:

It is not easy for a hotel manager to manage all the hotel rooms at once. By using this application it is easy for guests as well as manager to know all the details of rooms that are available and booked. However, manager can easily allot the rooms according to the suitability and comfort of the guest.

Code:

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

#define max 100
using namespace std;

//Class Customer
class Customer
{
public:
char name[100];
char address[100];
char phone[12];
char from_date[20];
char to_date[20];
float payment_advance;
int booking_id;
};
class Room
{
public:
char type;
char stype;
char ac;
int roomNumber;
int rent;
int status;

class Customer cust;
class Room addRoom(int);
void searchRoom(int);
void deleteRoom(int);
void displayRoom(Room);
};

//Global Declarations
class Room rooms[max];
int count=0;


Room Room::addRoom(int rno)
{
class Room room;
room.roomNumber=rno;
cout<<"\nType AC/Non-AC (A/N) : ";
cin>>room.ac;
cout<<"\nType Comfort (S/N) : ";
cin>>room.type;
cout<<"\nType Size (B/S) : ";
cin>>room.stype;
cout<<"\nDaily Rent : ";
cin>>room.rent;
room.status=0;

cout<<"\n Room Added Successfully!";
getch();
```

```
return room;
}


void Room::searchRoom(int rno)
{
int i,found=0;
for(i=0;i<count;i++)
{
if(rooms[i].roomNumber==rno)
{
found=1;
break;
}
}
if(found==1)
{
cout<<"Room Details\n";
if(rooms[i].status==1)
{
cout<<"\nRoom is Reserved";
}
else
{
cout<<"\nRoom is available";
}
displayRoom(rooms[i]);
getch();
}
else
{
cout<<"\nRoom not found";
getch();
}
}

void Room::displayRoom(Room tempRoom)
{
cout<<"\nRoom Number: \t"<<tempRoom.roomNumber;
cout<<"\nType AC/Non-AC (A/N) "<<tempRoom.ac;
cout<<"\nType Comfort (S/N) "<<tempRoom.type;
cout<<"\nType Size (B/S) "<<tempRoom.stype;
cout<<"\nRent: "<<tempRoom.rent;
}

//hotel management class
class HotelMgnt:protected Room
{
public:
void checkIn();
void getAvailRoom();
void searchCustomer(char *);
void checkOut(int);
void guestSummaryReport();
};


void HotelMgnt::guestSummaryReport(){

            if(count==0){
```

```
            cout<<"\n No Guest in Hotel !!";
}
for(int i=0;i<count;i++)
{
if(rooms[i].status==1)
{
cout<<"\n Customer First Name : "<<rooms[i].cust.name;
cout<<"\n Room Number : "<<rooms[i].roomNumber;
cout<<"\n Address (only city) : "<<rooms[i].cust.address;
cout<<"\n Phone : "<<rooms[i].cust.phone;
cout<<"\n--------------------------------------";
}

}

getch();
}

//hotel management reservation of room
void HotelMgnt::checkIn()
{
int i,found=0,rno;

class Room room;
cout<<"\nEnter Room number : ";
cin>>rno;
for(i=0;i<count;i++)
{
if(rooms[i].roomNumber==rno)
{
found=1;
break;
}
}
if(found==1)
{
if(rooms[i].status==1)
{
cout<<"\nRoom is already Booked";
getch();
return;
}

cout<<"\nEnter booking id: ";
cin>>rooms[i].cust.booking_id;

cout<<"\nEnter Customer Name (First Name): ";
cin>>rooms[i].cust.name;

cout<<"\nEnter Address (only city): ";
cin>>rooms[i].cust.address;

cout<<"\nEnter Phone: ";
cin>>rooms[i].cust.phone;

cout<<"\nEnter From Date: ";
cin>>rooms[i].cust.from_date;
cout<<"\nEnter to  Date: ";
cin>>rooms[i].cust.to_date;
```

```
cout<<"\nEnter Advance Payment: ";
cin>>rooms[i].cust.payment_advance;

rooms[i].status=1;

cout<<"\n Customer Checked-in Successfully..";
getch();
}
}


//hotel management shows available rooms
void HotelMgnt::getAvailRoom()
{
int i,found=0;
for(i=0;i<count;i++)
{
if(rooms[i].status==0)
{
displayRoom(rooms[i]);
cout<<"\n\nPress enter for next room";
found=1;
getch();
}
}
if(found==0)
{
cout<<"\nAll rooms are reserved";
getch();
}
}


//hotel management shows all persons that have booked room
void HotelMgnt::searchCustomer(char *pname)
{
int i,found=0;
for(i=0;i<count;i++)
{
if(rooms[i].status==1 && stricmp(rooms[i].cust.name,pname)==0)
{
cout<<"\nCustomer Name: "<<rooms[i].cust.name;
cout<<"\nRoom Number: "<<rooms[i].roomNumber;

cout<<"\n\nPress enter for next record";
found=1;
getch();
}
}
if(found==0)
{
cout<<"\nPerson not found.";
getch();
}
}
```

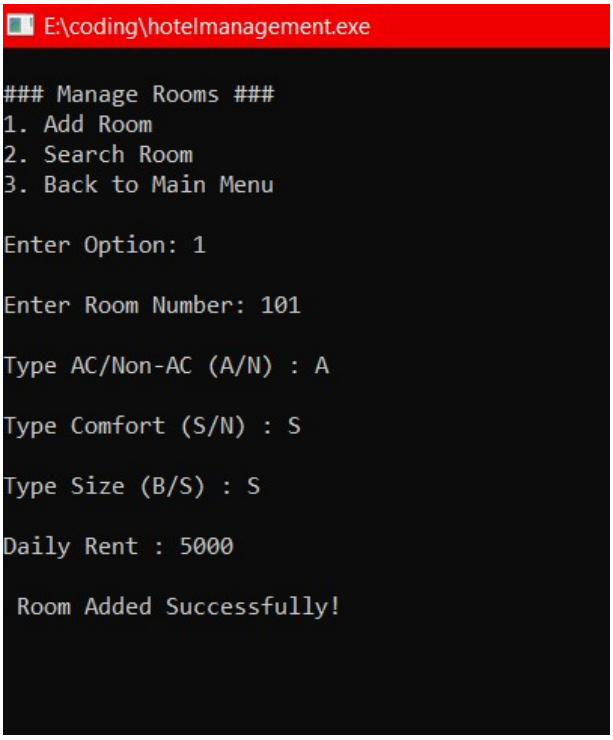
```
void HotelMgnt::checkOut(int roomNum)
{
int i,found=0,days,rno;
float billAmount=0;
for(i=0;i<count;i++)
{
if(rooms[i].status==1 && rooms[i].roomNumber==roomNum)
{
//rno = rooms[i].roomNumber;
found=1;
//getch();
break;
}
}
if(found==1)
{
cout<<"\nEnter Number of Days:\t";
cin>>days;
billAmount=days * rooms[i].rent;

cout<<"\n\t######## CheckOut Details ########\n";
cout<<"\nCustomer Name : "<<rooms[i].cust.name;
cout<<"\nRoom Number : "<<rooms[i].roomNumber;
cout<<"\nAddress : "<<rooms[i].cust.address;
cout<<"\nPhone : "<<rooms[i].cust.phone;
cout<<"\nTotal Amount Due : "<<billAmount<<" /";
cout<<"\nAdvance Paid: "<<rooms[i].cust.payment_advance<<" /";
cout<<"\n*** Total Payable: "<<billAmount-rooms[i].cust.payment_advance<<"/ only";

rooms[i].status=0;
}
getch();
}


//managing rooms (adding and searching available rooms)
void manageRooms()
{
class Room room;
int opt,rno,i,flag=0;
char ch;
do
{
system("cls");
cout<<"\n### Manage Rooms ###";
cout<<"\n1. Add Room";
cout<<"\n2. Search Room";
cout<<"\n3. Back to Main Menu";
cout<<"\n\nEnter Option: ";
cin>>opt;


//switch statement
switch(opt)
{
case 1:
cout<<"\nEnter Room Number: ";
cin>>rno;
i=0;
```

```
for(i=0;i<count;i++)
{
if(rooms[i].roomNumber==rno)
{
flag=1;
}
}
if(flag==1)
{
cout<<"\nRoom Number is Present.\nPlease enter unique Number";
flag=0;
getch();
}
else
{
rooms[count]=room.addRoom(rno);
count++;
}
break;
case 2:
cout<<"\nEnter room number: ";
cin>>rno;
room.searchRoom(rno);
break;
case 3:
//nothing to do
break;
default:
cout<<"\nPlease Enter correct option";
break;
}
}while(opt!=3);
}
using namespace std;
int main()
{
class HotelMgnt hm;
int i,j,opt,rno;
char ch;
char pname[100];

system("cls");

do
{
system("cls");
cout<<"######## Hotel Management #########\n";
cout<<"\n1. Manage Rooms";
cout<<"\n2. Check-In Room";
cout<<"\n3. Available Rooms";
cout<<"\n4. Search Customer";
cout<<"\n5. Check-Out Room";
cout<<"\n6. Guest Summary Report";
cout<<"\n7. Exit";
cout<<"\n\nEnter Option: ";
cin>>opt;
switch(opt)
{
case 1:
manageRooms();
```

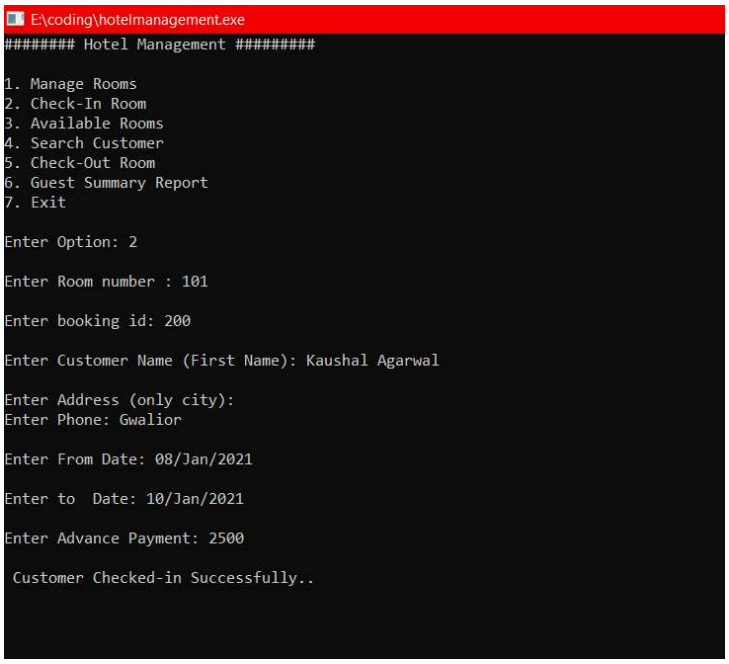
```
break;
case 2:
if(count==0)
{
cout<<"\nRooms data is not available.\nPlease add the rooms first.";
getch();
}
else
hm.checkIn();
break;
case 3:
if(count==0)
{
cout<<"\nRooms data is not available.\nPlease add the rooms first.";
getch();
}
else
hm.getAvailRoom();
break;
case 4:
if(count==0)
{
cout<<"\nRooms are not available.\nPlease add the rooms first.";
getch();
}
else
{
cout<<"Enter Customer Name: ";
cin>>pname;
hm.searchCustomer(pname);
}
break;
case 5:
if(count==0)
{
cout<<"\nRooms are not available.\nPlease add the rooms first.";
getch();
}
else
{
cout<<"Enter Room Number : ";
cin>>rno;
hm.checkOut(rno);
}
break;
case 6:
hm.guestSummaryReport();
break;
case 7:
cout<<"\nTHANK YOU! FOR USING SOFTWARE";
break;
default:
cout<<"\nPlease Enter correct option";
break;
}
}while(opt!=7);
getch();
}
```

Output:

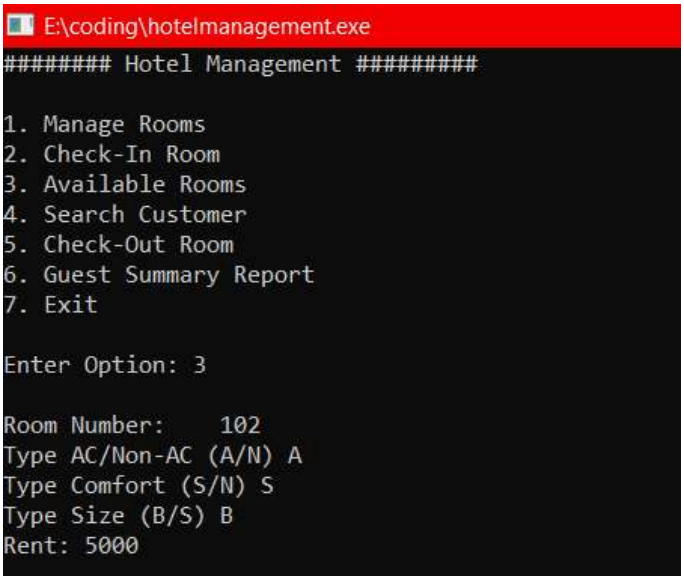
Adding a new room:



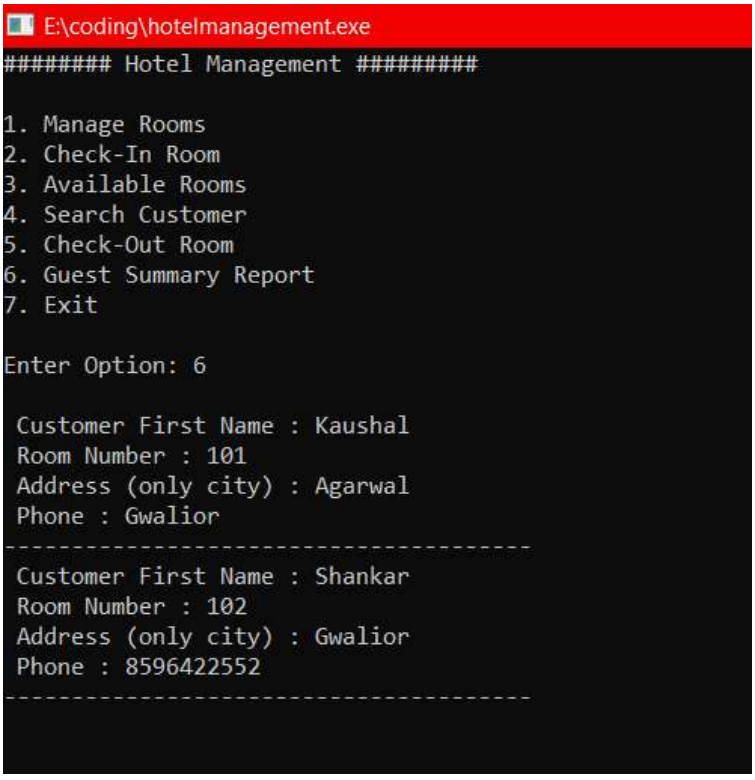
Assigning room to a customer:



To check the available rooms:



Guests Summary:



Conclusion:

Since we are entering details of the customer's electronically in the" Hotel Management System", data will be secured. Using this application, we can retrieve a room's history with a single click. Thus, processing information will be faster. It guarantees accurate maintenance of guest details. It easily reduces the book keeping task and thus reduces the human effort and increases accuracy speed

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