

SRI SRI RAVISHANKAR VIDYA MANDIR

Bangalore East



**COMPUTER SCIENCE
PROJECT**

Project Name: Hotel Management

**Name of the students: 1) Hrishikesh Maranat
2) B. Hrithik**

Class: XII

Year: 2019-2020

CERTIFICATE

This is to certify that **Hrishikesh Maranat** and **B.Hrithik**, students of Class XII have successfully completed the research under the guidance of Mrs. **Rachana Shenoy** during the Year 2019-2020 regarding his project titled: **“Hotel Management”** .

**Internal Examiner’s
Signature**

**Principal’s
Signature**

External Examiner’s Signature

ACKNOWLEDGEMENT

- I would like to thank my school for giving me this opportunity and for providing all facilities to meet my project requirements.
- I wish to express my sincere thanks to Mrs. Reshma Ganesh, Principal , SSRVM Bangalore East for the successful outcome of the project.
- I would like to thank my computer science teacher Mrs. Rachana Shenoy for her guidance and support.
- I would like to thank my parents for providing me with necessary resources to do this project.
- I would like thank my group member and friends who supported and motivated me to complete this project.

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OBJECTIVE OF THE PROJECT

The objective of this program is to create a menu driven program on

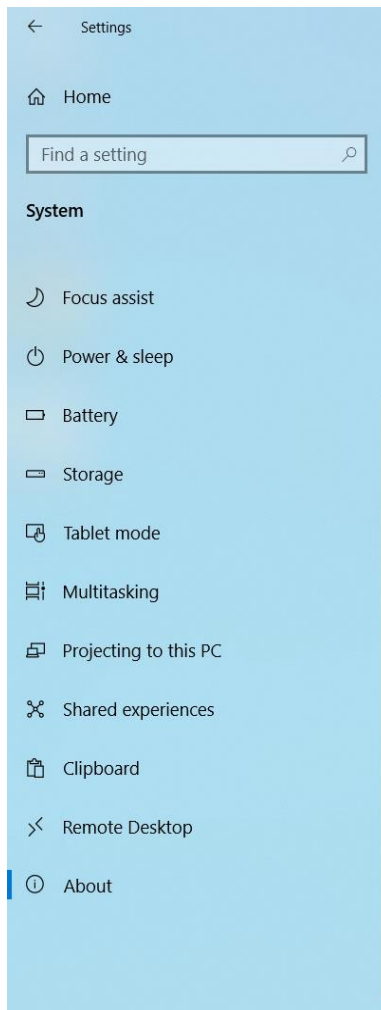
HOTEL MANAGEMENT. It allows the customer to book a room of required quality for the required days. Also the program helps create a better understanding of the concepts of C++.

INTRODUCTION TO C++

C++, as we all know is an extension to C language and was developed by **Bjarne Stroustrup** at bell labs. C++ is an intermediate level language, as it comprises a confirmation of both high level and low level language features. C++ is a statically typed, free form, multi-paradigm, compiled general-purpose language.

C++ is considered to be an intermediate-level language, as it encapsulates both high- and low-level language features. Initially, the language was called "C with classes" as it had all the properties of the C language with an additional concept of "classes." However, it was renamed C++ in 1983.

SYSTEM CONFIGURATION



About

HP Laptop 15g-dr0xxx

Device name	LAPTOP-UP3TJPB9
Processor	Intel(R) Core(TM) i3-7100U CPU @ 2.40GHz 2.40 GHz
Installed RAM	4.00 GB
Device ID	A6AA8CB6-C2D6-4859-B517-14AD6A51E708
Product ID	00327-35000-00000-AAOEM
System type	64-bit operating system, x64-based processor
Pen and touch	Touch support with 2 touch points

Rename this PC

Windows specifications

Edition	Windows 10 Home Single Language
Version	1903
Installed on	03-09-2019
OS build	18362.295

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Support

DESCRIPTION

In this program we will see a **HOTEL MANAGEMENT** program.

HOTEL MANAGEMENT has functions for booking a room, modifying the details, deleting a room and viewing available rooms. The use of binary file is applied. There are simple graphics for beautifying the project.

This program can be to improve the knowledge about **HOTEL MANAGEMENT SYSTEM**.

PROJECT QUESTION

Write a menu driven program in C++ on

HOTEL MANAGEMENT. The room details are stored in a file and a customer can book a room based on the availability. Room details can be deleted or modified.

PROGRAM CODE

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

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

```
#include<fstream.h>
```

```
#include<stdio.h>
```

```
#include<dos.h>
```

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

```
#include<process.h>
```

```
void animation()
```

```
{
```

```
    for(int j=0;j<40;j++)
```

```
    {
```

```
        cout<<"\n\n\n\n\n\n\n\n\n\n\n\n";
```

```
for(int i=0;i<=j;i++)  
{  
    cout<<" ";  
}  
  
cout<<"CBSE PROJECT(2019) -> HOTEL  
MANAGEMENT";  
  
    sound(800 + (5*j));  
    delay(40);  
    clrscr();  
}  
    nosound();  
}  
  
//-----  
-----
```

```
void sound()
{
    sound(500);
    delay(100);
    nosound();
}
```

```
//-----
-----
```

```
class hotel
{
    int room_no;
    char name[30];
    char address[50];
    char phone[10];

    public:
```

```
void main_menu(); //to display the main menu
void addlodge();    //for 1nightlodge
void addeco();      //for economic room
void addprem();     //for premium room
void add_room();    //to book a room
void display();     //to display the customer
record

void rooms();       //to display alloted rooms
void edit();        //to edit the customer record
int check(int);     //to check room status
void modify(int);   //to modify the record
void delete_rec(int); //to delete the record
int ret_room(){return room_no;}
char* ret_name(){return name;}
char* ret_address(){return address;}
char* ret_phone(){return phone;}
```

```
void Enter_Details()
{
    cout<<" Name: ";
    gets(name);
    sound();
    cout<<" Address: ";
    gets(address);
    sound();
    cout<<" Phone No: ";
    gets(phone);
}

void set_room(int r)
{
    room_no=r;
}
```

```
}h;
```

```
//-----  
-----
```

```
void hotel::main_menu()
```

```
{
```

```
    int choice;
```

```
    char ans;
```

```
    do
```

```
    {
```

```
        clrscr();
```

```
        cout<<"\n\t\t\t\t*****";
```

```
        cout<<"\n\t\t\t\t* MAIN MENU *";
```

```
        cout<<"\n\t\t\t\t*****";
```

```
cout<<"\n\n\n\t\t1.Book A Room";
cout<<"\n\t\t\t2.Customer Record";
cout<<"\n\t\t\t\t3.Rooms Allotted";
cout<<"\n\t\t\t\t4.Edit Record";
cout<<"\n\t\t\t\t5.Exit";
cout<<"\n\n\t\t\tEnter Your Choice: ";
cin>>choice;

sound();
```

```
switch(choice)
{
    case 1: add_room();
            break;
    case 2: display();
            break;
    case 3: rooms();
```



```

        break;
    case 4: edit();
        break;
    case 5: exit(0);break;
    default:
        {
            cout<<"\n\n\t\t\tWrong
choice!!!";

            cout<<"\n\t\t\tPress any
key to continue!!!";

            getch();
            sound();
        }
    }

    cout<<"\n\n\t\t\tSO, ANYTHING ELSE TO BE
DONE ?(y/n) ";

```

```

        cin>>ans;

    }while((ans=='y') || (ans=='Y'));

}

//-----
-----

```

```

void hotel::addlodge()

```

```

{

    clrscr();

    int r,flag;

```

```

    cout<<"\n Enter Customer Detalis";

    cout<<"\n *****";

```

```

    while(r>10 || r<0)

```

```
{  
    cout<<"\n\n(ALERT ! THERE ARE ONLY 10  
ROOMS!!)";  
    cout<<"\n\n Room no: ";  
    cin>>r;  
    sound();  
}
```

```
flag=check(r);  
if(flag)  
    cout<<"\n Sorry..!!!Room is already  
booked";  
else  
{    ofstream  
fout("Record.dat",ios::app|ios::binary);  
    h.Enter_Details();
```

```
h.set_room(r);  
sound();  
fout.write((char*)&h,sizeof(hotel));  
cout<<"\nOne night lodge is booked!!!";  
fout.close();  
  
}
```

```
cout<<"\n Press any key to continue!!";  
getch();  
sound();  
  
}  
  
//-----  
-----  
  
void hotel::addprem()
```

```
{  
  
    clrscr();  
  
    int r,flag;  
  
    cout<<"\n Enter Customer Detalis";  
  
    cout<<"\n *****";  
  
    while(r>60 || r<41)  
    {  
        cout<<"\n\nALERT ! THERE ARE ONLY 20  
PREMIUM ROOMS!!(41 - 60)";  
  
        cout<<"\n\n Room no: ";  
  
        cin>>r;  
  
        sound();  
    }
```

```
flag=check(r);  
if(flag)  
    cout<<"\n Sorry..!!!Room is already  
booked";  
else  
{  
    ofstream  
fout("Record.dat",ios::app|ios::binary);  
    h.Enter_Details();  
    h.set_room(r);  
    sound();  
    fout.write((char*)&h,sizeof(hotel));  
    cout<<"\nPremium room is booked!!!";  
    fout.close();  
}
```

```
    cout<<"\n Press any key to continue!!";  
    getch();  
    sound();  
  
}  
  
//-----  
-----
```

```
void hotel::addeco()
```

```
{
```

```
    clrscr();
```

```
    int r,flag;
```

```
    cout<<"\n Enter Customer Detalis";
```

```
    cout<<"\n *****";
```

```
while(r>40 || r<11)
{
    cout<<"\n\nALERT ! THERE ARE ONLY 30
economic ROOMS!!(11 - 40)";
    cout<<"\n\n Room no: ";
    cin>>r;
    sound();
}

flag=check(r);

if(flag)
    cout<<"\n Sorry..!!!Room is already
booked";
else
```



```
{  
    ofstream  
fout("Record.dat",ios::app|ios::binary);  
    h.Enter_Details();  
    h.set_room(r);  
    sound();  
    fout.write((char*)&h,sizeof(h));  
    cout<<"\nEconomic room is booked!!!";  
    fout.close();  
  
}
```

```
cout<<"\n Press any key to continue!!!";  
getch();  
sound();
```

```
}
```

```
//-----
```

```
-----
```

```
void hotel::add_room()
```

```
{
```

```
    clrscr();
```

```
    cout<<"\n\n\t\tWHICH TYPE OF ROOM IS  
NEEDED?\n\n";
```

```
    cout<<"\t\t1 : 1 night lodge\n\t\t2 : economic  
room\n\t\t3 : premium room\n\n";
```

```
    int num;
```

```
    cout<<"\t\tENTER YOUR CHOICE OF STAY :  ";
```

```
    cin>>num;
```

```

switch(num)
{
    case 1: addlodge();break;
    case 2: addeco();break;
    case 3: addprem();break;
    default : cout<<"\n\n\tWRONG CHOICE ....";
}

```

```

}

```

```

//-----
-----

```

```

void hotel::display()

```

```

{

```

```

    clrscr();

```

```

    ifstream fin("Record.dat",ios::in|ios::binary);

```

```
int r,flag;
```

```
cout<<"\n Enter room no: ";
```

```
cin>>r;
```

```
sound();
```

```
while(!fin.eof())
```

```
{
```

```
    fin.read((char*)&h,sizeof(hotel));
```

```
    if(h.ret_room()==r)
```

```
    {
```

```
        clrscr();
```

```
        cout<<"\n Cusromer Details";
```

```
        cout<<"\n *****";
```

```
        cout<<"\n\n Room no: "<<h.ret_room();
```

```
        cout<<"\n Name: "<<h.ret_name();
```

```
        cout<<"\n Address: "<<h.ret_address();
```

```
        cout<<"\n Phone no: "<<h.ret_phone();  
        flag=1;  
        break;  
    }  
}  
  
if(flag==0)  
    cout<<"\n Sorry Room no. not found or  
vacant!!";  
  
    cout<<"\n\n Press any key to continue!!";  
    getch();  
    sound();  
    fin.close();  
}
```

```
//-----  
-----
```

```
void hotel::rooms()  
{  
    int f;  
    char set[3];  
    clrscr();  
    cout<<"\n\n\t\tNO OF AVAILABLE ROOMS :  
\n\n";  
    ifstream fin("Record.dat",ios::in|ios::binary);  
    cout<<"\nROOMS 1 - 10 (low):\n";  
    for(int i=1;i<11;i++)  
    {  
        f=check(i);  
        if(f==1)  
        {
```

```

        strcpy(set,"YES");
        cout<<" "<<i<<'- '<<set;
    }
    else
    {
        strcpy(set,"NO");
        cout<<" "<<i<<'- '<<set;
    }
}

cout<<"\n\n";
cout<<"\nROOMS 11 - 40 (econimic):\n";
for(i=11;i<41;i++)
{
    f=check(i);
    if(f==1)
        strcpy(set,"YES");

```

```
    else  
        strcpy(set,"NO");  
        cout<<" " <<i<<'-'<<set;  
        if(i%10==0)  
            cout<<"\n";  
    }
```

```
cout<<"\nROOMS 41 - 60 (premium):\n";  
for(i=41;i<61;i++)  
{  
    f=check(i);  
    if(f)  
        strcpy(set,"YES");  
  
    else  
        strcpy(set,"NO");
```



```

        cout<<" "<<i<<'-'<<set;

        if(i%10==0)

            cout<<"\n";

    }

    cout<<"\n\t\t\t->  YES - BOOKED";

    cout<<"\n\t\t\t->  NO - NOT BOOKED";

}

//-----
-----

void hotel::edit()

{

    clrscr();

    int choice,r;


    cout<<"\n EDIT MENU";

    cout<<"\n *****";

```

```
cout<<"\n\n 1.Modify Customer Record";
```

```
cout<<"\n 2.Delete Customer Record";
```

```
cout<<"\n Enter your choice: ";
```

```
cin>>choice;
```

```
sound();
```

```
clrscr();
```

```
cout<<"\n Enter room no: ";
```

```
cin>>r;
```

```
switch(choice)
```

```
{
```

```
    case 1: modify(r);
```

```
        break;
```

```
    case 2: delete_rec(r);
```

```
        break;

    default: cout<<"\n Wrong Choice!!!";

}
```

```
    cout<<"\n Press any key to continue!!!";
    getch();
    sound();
}

//-----
-----
```

```
int hotel::check(int r)
{
    int flag=0;
    ifstream fin("Record.dat",ios::in|ios::binary);
    while(!fin.eof())
    {
```

```
        fin.read((char*)&h,sizeof(hotel));  
        if(h.ret_room()==r)  
        {  
            flag=1;  
            break;  
        }  
    }
```

```
    fin.close();  
    return(flag);  
}
```

```
//-----  
-----
```

```
void hotel::modify(int r)  
{  
    long pos,flag=0;
```

```

    fstream
    file("Record.dat",ios::in|ios::out|ios::binary);

    while(!file.eof())
    {

        file.read((char*)&h,sizeof(hotel));
        pos=file.tellg();                                //
        if(h.ret_room()==r)
        {

            cout<<"\n Enter New Details";
            cout<<"\n *****";
            h.Enter_Details();
            file.seekp(pos-sizeof(h));
            file.write((char*)&h ,sizeof(hotel));
            cout<<"\n Record is modified!!";

```

```
        flag=1;
        break;
    }
}
```

```
    if(flag==0)
cout<<"\n Sorry Room no. not found or vacant!!";
```

```
        file.close();
    }
//-----
-----
```

```
void hotel::delete_rec(int r)
{
    int flag=0;
    char ch;
```

```
ifstream fin("Record.dat",ios::in|ios::binary);
ofstream fout("temp.dat",ios::out|ios::binary);

while(fin.read((char*)&h,sizeof(hotel)))
{

    if(h.ret_room()==r)
    {

        cout<<"\n Name: "<<h.ret_name();
        cout<<"\n Address: "<<h.ret_address();
        cout<<"\n Pone No: "<<h.ret_phone();
        cout<<"\n\n Do you want to delete this
record(y/n): ";

        cin>>ch;

        sound();
```

```
        if(ch=='n')
            fout.write((char*)&h,sizeof(hotel));
            flag=1;
        }
        else
            fout.write((char*)&h,sizeof(hotel));
    }
```

```
    fin.close();
    fout.close();
```

```
    if(flag==0)
        cout<<"\n Sorry room no. not found or
vacant!!";
    else
    {
```



```
        remove("Record.dat");
        rename("temp.dat","Record.dat");
    }
}

//-----
-----

void main()
{
    clrscr();
    hotel h;
    //textmode(C80);
    textbackground(WHITE);
    textcolor(BLACK);

    animation();
}
```

```
clrscr();

cout<<"\n\t\t\t*****
**";

cout<<"\n\t\t\t* HOTEL MANAGEMENT
PROJECT *";

cout<<"\n\t\t\t*****
**";

sleep(1);

cout<<"\n\n\n\n\t\tMade By:";

sleep(1);

cout<<"B.HRITHIK and HRISHIKESH.M";

sleep(1);

cout<<"\n\n\n\n\t\tSUBMITTED TO:";

sleep(1);

cout<<" Mrs. RACHANA";
```

```
cout<<"\n\n\n\n\n\t\t\tPress any key to  
continue!!";
```

```
getch();
```

```
sound();
```

```
h.main_menu();
```

```
}
```

```
//-----  
-----
```

OUTPUT

First Page:



Main Menu:

```
*****
* MAIN MENU *
*****

1.Book A Room
2.Customer Record
3.Rooms Allotted
4.Edit Record
5.Exit

Enter Your Choice:
```

Entering Customer Details:

```
Enter Customer Details
*****
ALERT ! THERE ARE ONLY 30 economic ROOMS!!(11 - 40)

Room no: 12
Name: Sanjay
Address: 23, Krishna Apartments, Jayanagarg
Phone No: 123456789

Economic room is booked!!!
Press any key to continue!!

SO, ANYTHING ELSE TO BE DONE ?(y/n) g_
```

Display of Available Rooms:

```
NO OF AVAILABLE ROOMS :

ROOMS 1 - 10 (low):
 1-NO  2-NO  3-NO  4-NO  5-NO  6-NO  7-NO  8-NO  9-NO  10-NO

ROOMS 11 - 40 (economic):
 11-NO 12-NO 13-NO 14-NO 15-NO 16-NO 17-NO 18-NO 19-NO 20-NO
 21-NO 22-NO 23-NO 24-NO 25-NO 26-NO 27-NO 28-NO 29-NO 30-NO
 31-NO 32-NO 33-NO 34-NO 35-NO 36-NO 37-NO 38-NO 39-NO 40-NO

ROOMS 41 - 60 (premium):
 41-NO 42-NO 43-NO 44-NO 45-NO 46-NO 47-NO 48-NO 49-NO 50-NO
 51-NO 52-NO 53-NO 54-NO 55-NO 56-NO 57-NO 58-NO 59-NO 60-NO

      ->  YES - BOOKED
      ->  NO  - NOT BOOKED

SO, ANYTHING ELSE TO BE DONE?(y/n)
```

Booked room:

```
Enter room no: 7

Sorry Room no. not found or vacant!!
Press any key to continue!!!

SO, ANYTHING ELSE TO BE DONE?(y/n)
```

Edit Menu:

```
EDIT MENU
*****
1.Modify Customer Record
2.Delete Customer Record
Enter your choice: g
```

Entering room number 50:

```
Enter room no. : 50

Name: Joshua
Address: No. 24, Washington street
Phone No: +65-342234

Do you want to delete this record(y/n): y

PRESS ANY KEY TO CONTINUE !!!
```

Modifying room number 4:

```
Enter room no. : 4
```

```
Enter New Details
```

```
*****
```

```
Name : Julia
```

```
Address: #23, Washington Street
```

```
Phone no: +65-987675
```

```
Record is modified!!
```

LEARNING OUTCOME

From this project I had a good learning experience on the programming language C++.

I learnt the use of arrays, files, classes, pointers and inheritance. This helped me create a project on HOTEL MANAGEMENT using C++.

The project also served as a tool to understand programming languages and the optimal usage of functions.

This program has also taught me to organize my programming and how to write code professionally.

BIBLIOGRAPHY

I got information regarding the topic from:

- google.com
- wikipedia.en.org
- Sumita Arora computer textbook
- Internet
- Computer Science reference books