Micro Project report

On

Develop Hotel Management Application

In Partial Of Diploma In Computer Engineering

(Third semester ) in

The Subject Of

Object Oriented Programming (FC3405)

By

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Submitted To



Government Polytechnic Amaravti

(An Autonomous Institute Of Govt. Of Maharastra)

Under Guidance Of

smita patil Mam

Lecture in computer Department of

Computer Engineering

Government Polytechnic Amaravati

(2020-2021)

|  |  |
| --- | --- |
|  | **Government Polytechnic, Amravati.**  (An Autonomous Institute of Govt. of Maharashtra)  **Department of Computer Engineering** |
| *Certificate*  This is to certify that Ms. Radhika Keshavrao Herode.  Identity Code. :-. [19CM025] of Third Semester Diploma in  Computer Engineering has satisfactorily completed the micro project entitled  “ Develop Hotel Management application. ” in “ Object Oriented  programming Using C++ ”for the academic  year 2020-21 as prescribed in curriculum.   |  |  | | --- | --- | | Place: Amravati | Lecturer in Computer Engineering | | Date: /02 / 2021 |  | | |

**PART A-PLAN**

**MICRO-PROJECT PROPOSAL**

**1.0 Title Of Microproject:** Develop Hotel Management Application

**2.0 Brief Introduction :**

The project for Hotel **management system in C++.** The Title of the Micro project is to

"**Develop Hotel Management Application in C++".**

In this project users can perform general hotel management operations related to hotel like Manage Room , check in room , Available rooms , search customer information, check out rooms etc . In hotel management system project in C++, file handling use to perform various functions like adding customer details and add room etc.

This system provides various options like booking a room, checking customer details, editing or deleting any customer, checking all allotted rooms. The project is developed using two important C++ concepts that are classes, objects and file handling.

**3.0 This Micro Project Aims at :-**

1. The Hotel Management System aims to make simpler a staff’s interaction

with customers and for Hotel staff's ease the process of acquiring

information and providing services to customers.

**2.** Make functioning of Hotel Faster.

3. Reduce space consumed and less time is required.

4. Paper work is reduced.

5. Less efforts is taken.

* **Course outcomes :-**

In this project we covered the following Course outcomes :

1. File handling functions in C++.

2. Consept of Classes and Object.

**4.0 Actual Procedure Followed**. Write step wise the work was done, including which team member did what work and how the data was analyzed (if any).

**5.0 Actual Resour ces Used (Mention the actual r esour ces used).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N. | Details of activity | Planning start date | Planned finish date | I.Code and name of team members |
| 1. | Palnning  also gathering  information. | 20/11/2020 | 22/11/2020 | 1.Radhika Herode  (19CM025)  2. Tanuja padmane (19CM045) |
| 2. | Gathering information about micro project | 25/11/2020 | 2/12/2020 | 1.Sejal v. Tingre  (19CM063)  2. Maithili Ghom  (19CM021) |
| 3. | Making a word document and made sequence to each helped other in making a microproject. | 10/01/2021 | 15/01/2021 | 1. Radhika Herode  (19CM025)  2.Shivani nakhate  (19CM041)  3.Adarsh Kale  (20CM206) |

1. Resource Required

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr.no | Name Of Resource | Specification | Quality | Remarks |
| 1. | Laptop |  | 1 |  |
| 2. | Internet Explorer | Intel core i3 | 1 |  |

**Annexure-ll**

**PART B -(outcome after Execuition )**

**Micro-Project Report**

Micro-Project Report:

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**5.0 Resource Required**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.no** | Name Of Resource | Specification | Quality | Remarks |
| 1. | Laptop |  | 1 |  |
| 2. | Internet Explorer | Intel core i3 | 1 |  |

**6.0 Output:**

Output is attached at the end.

**7.0 Skill Developed/learing out of this micro project**

**1. To know the importance of object oriented programming in c++.**

**2.To learn about features of object oriented programming language.**

**Signature of Student 8.0 Assessment by Faculty as per Rubrics**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Id. No. | Process Assessment (06) | Product Assessment (04) | Total Marks  (10) | Signature of Faculty |
| **19CM025** |  |  |  |  |
| **19CM041** |  |  |  |  |
| **19CM045** |  |  |  |  |
| 19CM021 |  |  |  |  |
| 19CM063 |  |  |  |  |
| 20CM206 |  |  |  |  |

# \*\*\*\*\*\*\*\*\*

* **Introduction:**

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This system provides various options like booking a room, checking customer details, editing or deleting any customer, checking all allotted rooms. The project is developed using two important C++ concepts that are classes, objects and file handling.

On execution of this code users get a menu with 7 points 1 to 7 and then program runs according to user selection. There is output at the end pages of file.

* The menu with seven points are :-
* Manage Rooms
* Check-In Room
* available rooms
* Search customer
* Check-out room
* Get guest summary report
* Exit

**1) Manage room:- To manage the data** of room such as Add room, search room .

In Manage room there are three options:-

Add room

Search room

Back to main menu

In first option of manage room that is Add room user can add room details such as

Room no, Type AC/non-AC and daily rent etc. If user can enter this details room added successfully.

Search room is for searching a details for room.

**2) Check in room :-** this options is for check in customer . In this option we have to enter customer details .

**Add customer detail:** The information asked for by this function are name and address of the customer, and date, month and year of the customer’s arrival.

**3) Available room :-**  This option is for check availability of rooms.

If room is available it's display massage room is available.

Else it display room is reserved.

**4) Search Customer :-**

**Display customer details**: This function displays the details of customers in the hotel. The info like customer name, room number.

**5) Check out room :-** This option is for check out the customer.

In this we have enter room no thaen check out details is display.

Such as customer name, Address, total amount, advance paid , total payable amount etc.

**6) Get guest summary report**

**7) Exit**

**Header Files Used:**

This project utilizes header files, all of which are included in[Turbo C++ library file](http://www.techinfopark.net/2014/03/Turbo-c-compiler-for-windows8-7-XP-8.1-free-download.html).

* #include<conio .h>
* #include<string .h>
* #include<fstream .h>
* #include<upstream.h>
* **Code:**

#include<iostream>

#include<string.h>

#include<conio.h>

#define max 100

using namespace std;

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);

};

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;

}

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();

}

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();

}

**}**

**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();**

**}**

**}**

**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();**

**}**

**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(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:**





















