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**Aim:**

Implement Analysis class Model-class diagram with a suitable object-oriented language.

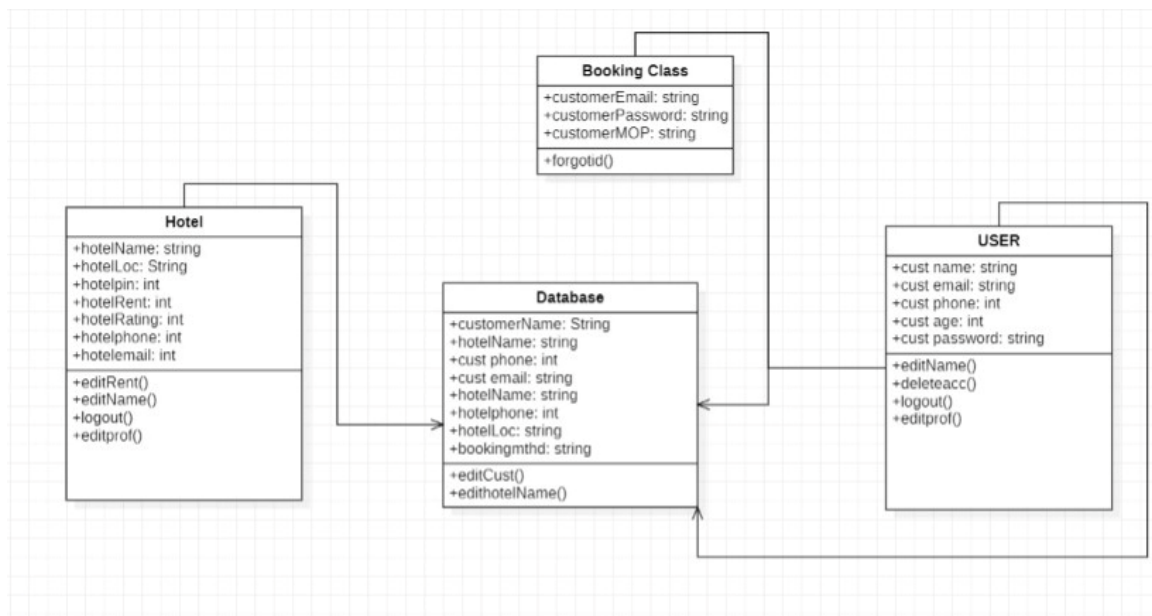
**Objective:**

To Implement Analysis class Model-class diagram with a suitable object-oriented language.

**Theory:**

The class diagram depicts a static view of an application. It represents the types of objects residing in the system and the relationships between them. A class consists of its objects, and also it may inherit from other classes. A class diagram is used to visualize, describe, document various different aspects of the system, and also construct executable software code.

It shows the attributes, classes, functions, and relationships to give an overview of the software system. It constitutes class names, attributes, and functions in a separate compartment that helps in software development. Since it is a collection of classes, interfaces, associations, collaborations, and constraints, it is termed as a structural diagram.



## Code:

- Hotel

```

#include <iostream>
using namespace std;

class Hotel{
private:
    string hotelName;
    string hotelLocation;
    int hotelRent;
    int hotelRating;
    long long hotelPhone;
    string hotelEmail;

public:
    Hotel(string hotelName,string hotelLocation, int hotelRent,long long
hotelPhone,string hotelEmail){
        this->hotelName = hotelName;
        this->hotelLocation = hotelLocation;
        this->hotelRent = hotelRent;
        this->hotelPhone = hotelPhone;
        this->hotelEmail = hotelEmail ;
    };
    ~Hotel();
    void editRent(int newRent){
        hotelRent = newRent;
    }
    void editName(string newName){

```

```

        hotelName = newName;
    }
    void showHotelDetails(){
        cout<<"Hotel Name : "<< this->hotelName<< endl;
        cout<< "Hotel Location : "<< this->hotelLocation<< endl;
        cout<< "Hotel Rent (Per Night) : "<<this->hotelRent<< endl;
        cout<< "Hotel Phone Number : "<<this->hotelPhone<< endl;
    }
    void logout();
    void editProf();
};

Hotel::~Hotel(){
}

int main(){

    // Declaring Object
    Hotel H1("Hotel Vishwakarma ", "Kondhwa ", 1800, 9960641238,
"vishwakarma@gmail.com");
    // Changing Hotel Name
    cout<<endl;
    H1.showHotelDetails();
    cout<<endl;
    cout<<"Changing Hotel Name ->>"<<endl;
    H1.editName("Vishwakarma Hotel");
    H1.showHotelDetails();
    // Changing Hotel Rent
    cout<<endl;
    cout<<"Changing Hotel Rent ->>"<<endl;
    H1.editRent(2000);
    cout<<endl;
    H1.showHotelDetails();

    return 0;
}

```

```
Hotel Name : Hotel Vishwakarma
Hotel Location : Kondhwa
Hotel Rent (Per Night) : 1800
Hotel Phone Number : 9960641238
```

```
Changing Hotel Name ->>
Hotel Name : Vishwakarma Hotel
Hotel Location : Kondhwa
Hotel Rent (Per Night) : 1800
Hotel Phone Number : 9960641238
```

```
Changing Hotel Rent ->>
```

```
Hotel Name : Vishwakarma Hotel
Hotel Location : Kondhwa
Hotel Rent (Per Night) : 2000
Hotel Phone Number : 9960641238
```

- Booking

```
#include <iostream>
using namespace std;

class Booking{
private:
    string custName;
    int custPhone;
    string custEmail;
    string custPass;

public:
    Booking();
    ~Booking();
    void forgetId();
};

Booking::Booking(){
}

Booking::~Booking(){
}
```

- User

```
#include <iostream>
```

```

using namespace std;

class User{
    private:
        string custName;
        string custEmail;
        string custPass;

    public:
        User(string custName,string custEmail, string custPass);
        ~User();
        void editProfile(string custName,string custEmail, string custPass);
        void showInfo();
};

User::User(string custName,string custEmail, string custPass){
    this->custEmail = custEmail;
    this->custName = custName;
    this->custPass = custPass;
}

User::~~User(){
}

void User:: editProfile(string custName,string custEmail, string custPass){
    this->custEmail = custEmail;
    this->custName = custName;
    this->custPass = custPass;
}

void User:: showInfo(){
    cout<< "Customer Name: "<< this->custName<<endl;
    cout<< "Customer Email: " << this->custEmail<<endl;
    cout<< "Customer Password: "<< this->custPass<<endl;
}

int main(){

    // Making object of Class
    User P1("Niraj", "nrj@gmail.com", "Niraj@123" );
    cout<<endl;
    // Printing Profile Information
    P1.showInfo();
    //Editing Profile Information
    cout<<endl;
    P1.editProfile("NRJ", "nrj@gmail.com", "Niraj@123");
    // Information Changed (Name changed)
    P1.showInfo();
}

```

```
    return 0;  
}
```

```
Customer Name: Niraj  
Customer Email: nrj@gmail.com  
Customer Password: Niraj@123
```

```
Customer Name: NRJ  
Customer Email: nrj@gmail.com  
Customer Password: Niraj@123
```

### **Conclusion:**

Implemented class model with using C++ language.