



Topic : Online Vaccination Portal

Group No : MLB_11.01_06

Campus : Malabe

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We declare that this is our own work, and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each of us equally contributed to completing this Assignment.

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Requirements for the system

- Guests can view general information about the vaccination program, such as eligibility criteria, available vaccines, and vaccination center.
- Guest can register as a new user.
- Guest can view Feedback.
- Registered users can manage their own accounts.
- Patients can buy, order, or add vaccines to the cart.
- Patients can give feedback about the vaccines.
- Patients can update & delete their own accounts,
- Supplier can manage vaccine inventory.
- Supplier can manage their own accounts.
- Doctor can view booking details.
- Doctor can manage their own details.
- Staff can manage user accounts.
- Staff can manage Vaccine details.
- Staff can manage Supplier details.
- Staff can manage order details.
- Staff can view booking details.
- Staff can manage feedbacks.
- Staff can manage their own details.
- Staff can manage all the system details and manage the system with the according to the requirements.

Identified Classes

- Guest
- Registered User
- Patient
- Doctor
- Supplier
- Staff
- Vaccines
- Orders
- Bookings
- Feedbacks
- Payment

CRC Card

Class name: Feedback	
Responsibilities:	Collaborations:
Provide feedback	
Display feedback	

Class name: Registered user	
Responsibilities:	Collaborations:
Store registration details	

Class name: Patient	
Responsibilities:	Collaborations:
Log in	Registered User
Give feedback	
View vaccine	
Make order	Vaccine
Make booking	
Store patient details	
Display patient details	

Class name: Order	
Responsibilities:	Collaborations:
Store order details	Vaccine, Patient
Display orders	
Class name: Staff	
Responsibilities:	Collaborations:
Manage accounts	Registered User
Manage vaccines (add, remove, update)	Vaccine, Supplier
Handle feedback	Feedback
Manage orders	Order
Display staff details	

Class name: Doctor	
Responsibilities:	Collaborations:
Log in	Staff
Approve booking	Booking
Store doctor id	
Display doctor details	

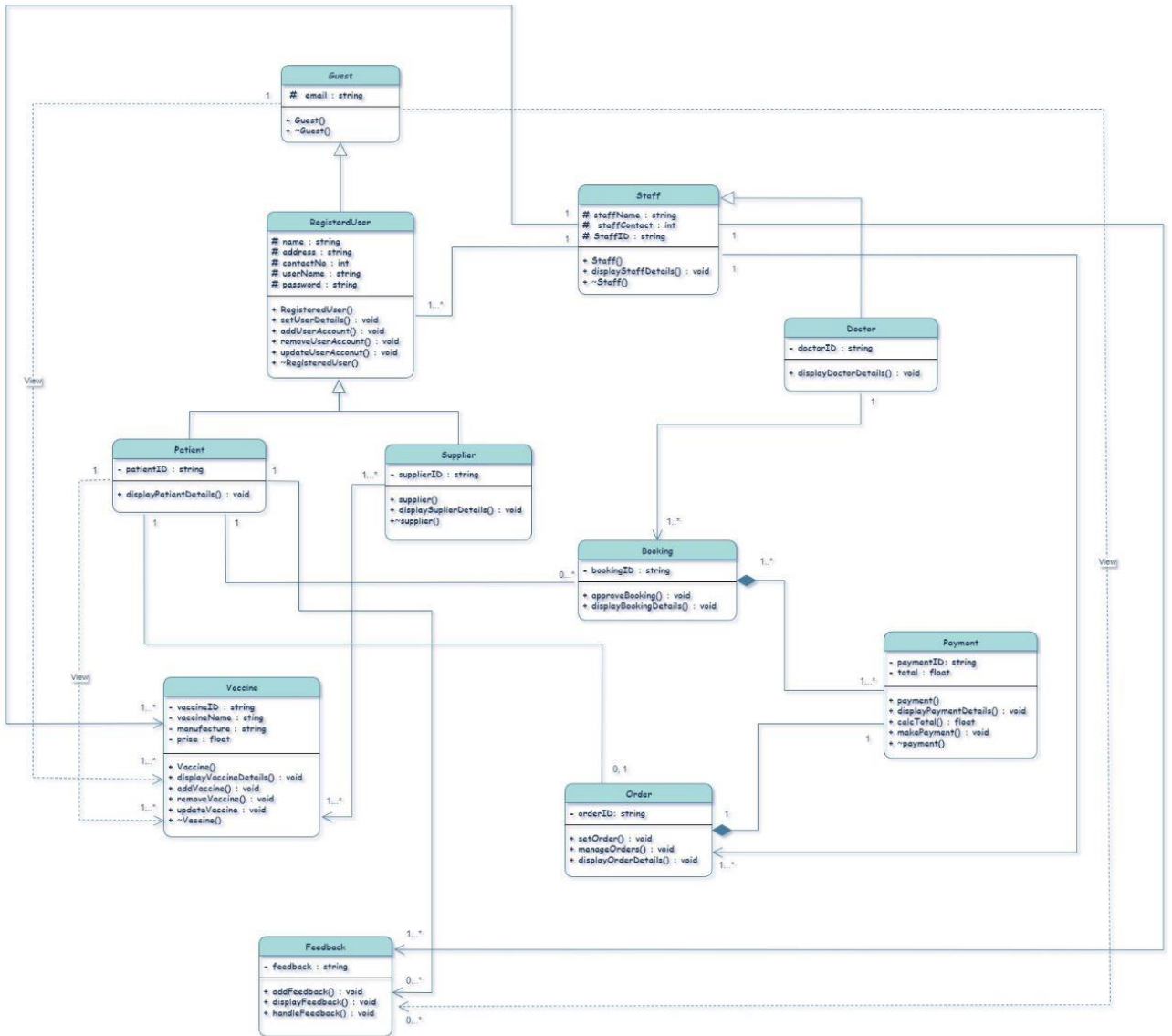
Class name: Booking	
Responsibilities:	Collaborations:
Store booking details	Staff Booking
Display booking details	

Class name: Supplier	
Responsibilities:	Collaborations:
Log in	Registered user
Provide vaccines	
Display supplier details	
Display provides vaccines	

Class name: Vaccine	
Responsibilities:	Collaborations:
Store vaccine details	
Display vaccine details(vaccine name, price, manufacture)	

Class name: Payment	
Responsibilities:	Collaborations:
Make payment	Order, Booking
Calculate total bill amount	Vaccine
Display payment details (Total bill, vaccine item, patient details)	Patient, Vaccine, Order, Booking

UML Diagram



Coding

Guest.h

```
// IT22577306 - H I H P MASINGHE

#include<iostream>

#include<iomanip>

using namespace std;

class Guest {

protected:

    string email;

public:

    Guest(string gEmail);

    ~Guest();

};
```

Guest.cpp

```
#include "Guest.h"

Guest::Guest(string gEmail) {

    email = gEmail;

}

Guest::~~Guest()

{

}
```


Registereduser.h

```
#include "Guest.h"

class RegisteredUser : public Guest {
protected:
    string name;
    string address;
    int contactNo;
    string userName;
    string password;
public:
    RegisteredUser(string rName, string rAddress, int rContactNo, string rUserName,
string rPassword, string rEmail);

    void addUserAccount(string rName, string rAddress, int rContactNo, string rEmail);

    void removeUserAccount(string rName, string rAddress, int rContactNo, string
rUserName, string rPassword, string rEmail);

    void updateuserAccount(string rName, string rAddress, int rContactNo, string rEmail);

    ~RegisteredUser();
};
```

RegisteredUser.cpp

```
#include "RegisteredUser.h"

RegisteredUser::RegisteredUser(string rName, string rAddress, int rContactNo, string
rUserName, string rPassword, string rEmail) : Guest(rEmail) {

    name = rName;

    address = rAddress;

    contactNo = rContactNo;

    userName = rUserName;

    password = rPassword;

}

void RegisteredUser::addUserAccount(string rName, string rAddress, int rContactNo, string
rEmail) {

    name = rName;

    address = rAddress;

    contactNo = rContactNo;

}

void RegisteredUser::removeUserAccount(string rName, string rAddress, int rContactNo,
string rUserName, string rPassword, string rEmail) {

    name = rName;

    address = rAddress;

    contactNo = rContactNo;

    userName = rUserName;

    password = rPassword;

}

void RegisteredUser::updateuserAccount(string rName, string rAddress, int rContactNo,
string rEmail) {

    name = rName;

    address = rAddress;

    contactNo = rContactNo;

}

RegisteredUser::~RegisteredUser()

{

}

}
```

Patient.h

```
// IT22577306 - H I H P MASINGHE
```

```
#include "RegisteredUser.h"
```

```
class Patient : public RegisteredUser {
```

```
private:
```

```
    string patientID;
```

```
public:
```

```
    Patient(string pID, string pName, string pAddress, int pContactNo, string  
pUserName, string pPassword, string pEmail) : RegisteredUser(pName, pAddress, pContactNo,  
pUserName, pPassword), Guest(pEmail);
```

```
    void displayPatientDetails();
```

```
    ~Patient();
```

```
};
```

Patient.cpp

```
#include "Patient.h"
```

```
Patient::Patient(string pID, string pName, string pAddress, int pContactNo, string  
pUserName, string pPassword, string pEmail)
```

```
    : RegisteredUser(pName, pAddress, pContactNo, pUserName, pPassword, pEmail),  
    Guest(pEmail)
```

```
{
```

```
    patientID = pID;
```

```
}
```

```
void Patient::displayPatientDetails()
```

```
{
```

```
    cout << "Patient ID: " << patientID << endl;
```

```
    cout << "Name: " << name << endl;
```

```
    cout << "Address: " << address << endl;
```

```
    cout << "Contact No: " << contactNo << endl;
```

```
    cout << "Username: " << userName << endl;
```

```
    cout << "Password: " << password << endl;
```

```
    cout << "Email: " << email << endl;
```

```
}
```

```
Patient::~~Patient(){}  

```

Doctor.h

```
#include "Staff.h"

class Doctor : public Staff {
private:
    string doctorID;
public:
    Doctor(string dName, int dCon, string dID) : Staff(dName, dCon);
    ~Doctor();
};
```

Doctor.cpp

```
#include "Doctor.h"

Doctor::Doctor(string dName, int dCon, string dID) : Staff(dName, dCon, dID) {
    doctorID = dID;
}

Doctor::~~Doctor()
{
}
```

Supplier.h

```
#include "RegisteredUser.h"

class Supplier : public RegisteredUser {

private:

    string supplierID;

public:

    Supplier(string sID, string sName, string sAddress, int sContactNo, string
sUserName, string sPassword, string sEmail) : RegisteredUser(sName, sAddress, sContactNo,
sUserName, sPassword), Guest(sEmail);

    void displayPatientDetails();

    ~Supplier();

};
```

Supplier.cpp

```
#include "Supplier.h"

Supplier::Supplier(string sID, string sName, string sAddress, int sContactNo, string
sUserName, string sPassword, string sEmail)

{

    supplierID = sID;

}

void Supplier::displayPatientDetails()

{

    cout << "Supplier ID: " << supplierID << endl;

    cout << "Name: " << name << endl;

    cout << "Address: " << address << endl;

    cout << "Contact No: " << contactNo << endl;

    cout << "Username: " << userName << endl;

    cout << "Password: " << password << endl;

    cout << "Email: " << email << endl;

}

Supplier::~Supplier(){}


```

Booking.h

```
#include<iostream>

#include<iomanip>

using namespace std;

class Booking
{
    string bookingID;
public:
    void approveBooking();
    void displayBookingDetails();
};
```

Bokking.cpp

```
#include "Booking.h"

void Booking::approveBooking()
{
    cout << "Booking approved!" << endl;
}

void Booking::displayBookingDetails()
{
    cout << "Booking ID: " << bookingID << endl;
}
```

Feedback.h

```
// IT22577306 - H I H P MASINGHE

#include<iostream>

#include<iomanip>

using namespace std;

class Feedback {
private:
    string feedback;
public:
    void addFeedback(string fed);
    void displayFeedback();
    void handleFeedback();
};
```

Feedback.cpp

```
#include "Feedback.h"

void Feedback::addFeedback(string fed)
{
    feedback = fed;
}

void Feedback::displayFeedback()
{
    cout << "Feedback: " << feedback << endl;
}

void Feedback::handleFeedback()
{
}
```

Staff.h

```
#include<iostream>

#include<iomanip>

using namespace std;

class Staff {
protected:
    string staffName;
    int staffContact;
    string staffID;
public:
    Staff(string sName, int sCon, string sID);
    void dispalystaffDetails();
    ~Staff();

};
```

Staff.cpp

```
#include "Staff.h"

Staff::Staff(string sName, int sCon, string sID) {
    staffName = sName;
    staffContact = sCon;
    staffID = sID;
}

void Staff::dispalystaffDetails() {
    cout << "Staff Name: " << staffName << endl;
    cout << "Contact: " << staffContact << endl;
    cout << "Staff ID: " << staffID << endl;
}

Staff::~~Staff() {
}
```


Vaccine.h

```
#include<iostream>

#include<iomanip>

using namespace std;

class Vaccine
{
private:
    string vaccineID;
    string vaccineName;
    string manufacture;
    float price;
public:
    Vaccine(string vID, string vName, string vManu, float vPrice);
    void displayVaccineDetails();
    void addVaccine(string vID, string vName, string vManu, float vPrice);
    void removeVaccine();
    void updateVaccine(string vID, string vName, string vManu, float vPrice);
    ~Vaccine();
};
```

Vaccine.cpp

```
#include "Vaccine.h"

Vaccine::Vaccine(string vID, string vName, string vManu, float vPrice)
{
    vaccineID = vID;
    vaccineName = vName;
    manufacture = vManu;
    price = vPrice;
}

void Vaccine::displayVaccineDetails()
{
    cout << "Vaccine ID: " << vaccineID << endl;
    cout << "Vaccine Name: " << vaccineName << endl;
    cout << "Manufacturer: " << manufacture << endl;
    cout << "Price: " << price << endl;
}

void Vaccine::addVaccine(string vID, string vName, string vManu, float vPrice)
{
    vaccineID = vID;
    vaccineName = vName;
    manufacture = vManu;
    price = vPrice;
    cout << "Vaccine added successfully!" << endl;
}

void Vaccine::removeVaccine()
{
    vaccineID = "";
    vaccineName = "";
    manufacture = "";
    price = 0.0;
    cout << "Vaccine removed successfully!" << endl;
}
```

```

void Vaccine::updateVaccine(string vID, string vName, string vManu, float vPrice)
{
    vaccineID = vID;
    vaccineName = vName;
    manufacture = vManu;
    price = vPrice;
    cout << "Vaccine updated successfully!" << endl;
}

Vaccine::~Vaccine()
{
}

```

Order.h

```

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

class Order {
private:
    string orderID;
public:
    void setOrder(string oID);
    void manageOrders();
    void displayOrderDetails();
};

```

Order.cpp

```
#include "Order.h"

void Order::setOrder(string oID)
{
    orderID = oID;
}

void Order::manageOrders()
{
    cout << "Orders managed successfully!" << endl;
}

void Order::displayOrderDetails()
{
}
```

Payment.h

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

class Payment
{
private:
    string paymentID;
    float total;
public:
    Payment();
    Payment(float pID);
    void displayPaymentDetails();
    void makePayment();
    float calcTotal();
    ~Payment();
};
```

Payment.cpp

```
#include "Payment.h"

Payment::Payment()
{
    total = 0;
}

Payment::Payment(float pID)
{
    paymentID = pID;
}

void Payment::displayPaymentDetails()
{
    cout << "Payment ID: " << paymentID << endl;
    cout << "Total Amount: " << total << endl;
}

void Payment::makePayment()
{
    cout << "Payment processed successfully!" << endl;
}

float Payment::calcTotal()
{
    return 0.0f;
}

Payment::~~Payment(){
}
```

Main.cpp

```
#include "Guest.h"

#include "Feedback.h"

#include "RegisteredUser.h"

#include "Patient.h"

#include "Order.h"

#include "Staff.h"

#include "Doctor.h"

#include "Booking.h"

#include "Supplier.h"

#include "Vaccine.h"

#include "Payment.h"


#include <iostream>

using namespace std;


int main()
{
    return 0;
}
```