



Topic :Online Medical Portal

Group no :MLB_09.02_5

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 one of us equally contributed to the completion of this Assignment.

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Description of the requirements

- An unregistered patient can be able to register as a registered user (registered patient) with using full name, Nic, age, address, email address and the password
- An unregistered user can be able to find available doctors to make an appointment. But unregistered user can't to perform any other function in the system.
- Registered patient can log into the system using user's credentials (email and password).
- Registered patient can be able to make an appointment for doctor
- Registered patient can be able to request a lab report.
- Registered patient can be able to request an ambulance for an emergency.
- Registered patient can be able to check his past medical records.
- Registered patient can be able to make a payment for medical services.
- Doctors can be able to login to the system using doctor's email and password.
- Doctors can be able to fill the patient's diagnose form and prescribe medicines to the patients
- Lab assistance can be able to collect the details of the requested lab reports which to be done in relevant day
- Lab assistances can be able to login to the system.
- Lab assistances can be able to upload lab reports to the system

Identified classes

1. Unregistered User
2. Registered User
3. Registered Patient
4. Doctor
5. Lab assistance
6. Ambulance
7. Lab report
8. Appointment
9. Payment
10. Visa/master card (Inherited from the payment class)
11. Bank transfer (Inherited from the payment class)

CRC Cards

Patient	
Responsibilities	Collaborations
Make an appointment	Appointment
Patient login	
Edit patient details	

Unregistered User	
Responsibilities	Collaborations
Find available doctors	doctor

Lab assistance	
Responsibilities	Collaborations
Check report requests from patients and doctors	lab_report
Upload lab report	
Log in to the system	

Ambulance	
Responsibilities	Collaborations

Doctor	
Responsibilities	Collaborations
Write diagnose form for the appointment	appointment
Doctor log in	

Lab report	
Responsibilities	Collaborations
Update details the of completed lab report	Medical records
Send report to the patient	patient
Get the details of requested lab reports	Patient, doctor

Appointment	
Responsibilities	Collaborations
Schedule the appointment	Doctor, lab_report, ambulance
Calculate the payment	payment
Send appointment confirmation message to the patient	patient

Payment	
Responsibilities	Collaborations
Store payment details	
Validate payment	

Visa/master card	
Responsibilities	Collaborations
Store card payment details	payment

Bank transfer	
Responsibilities	Collaborations
Store bank payment details	Payment

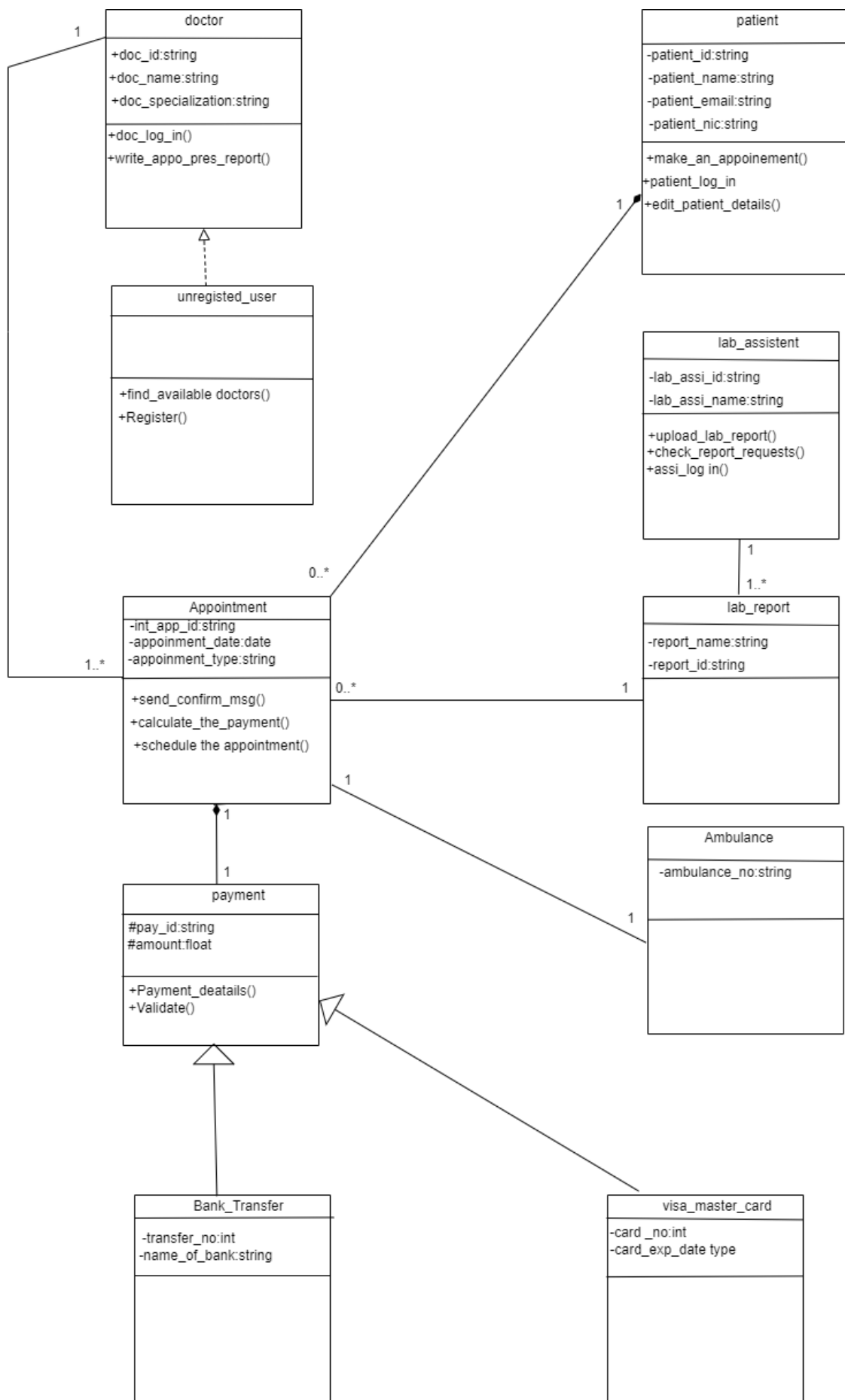


Figure 0.1 Class diagram

C++ code

```
#include <iostream>
using namespace std;
#include <cstring.h>
#define SIZE 2

// done by it21180620

class appoinment {
private:
    char app_id[6];
    char appoinment_date[9];
    char appoinment_type[20];
    lab_report *labreport[SIZE];
    ambulance *amb[SIZE];
    payment *pay[SIZE];
    doctor *doc;

public:
    appoinment();
    appoinment(const char ap_id[], const char ap_date[], const char ap_type[]);
    void send_confirm_msg();
    void calculate_the_payment();
    void shedulle_appoinment();
};

class patient {
private:
    appoinment *app[SIZE];
    char patient_id[6];
    char patient_name[70];
    char patient_email[40];
    char patient_nic[11];
public:
    patient();
    patient(const char p_id[], const char p_name[], const char p_email[], const char p_nic[]);
    void make_an_appoinment();
    void patient_login();
    void edit_patient_details();
};
```



```

class doctor{
    private:
        char doc_id[10];
        char doc_name[50];
        char doc_specilization[50];
        appoinment *ap[SIZE];

    public:
        doctor();
        doctor(const char d_id[], const char d_name[], const char d_speci[]);
        void doc_log_in();
        void write_prescription_form();
};

```

//done by it 21178290

```

class lab_report{
    private:
        char report_name[50];
        char report_id[10];
        appoinment *app;
        lab_assistant *assi;

    public:
        lab_report();
        void displaylab_report();

}

```

```

class ambulance{
    private:
        char ambulance_no[6];
        appoinment *app;

    public:
        ambulance();

};

```

// done by it21177132

```
class payment{
protected:
    int payment_id;
    float amount;

public:
    payment();
    payment(int ppayment_id, float pamount);
    void paymentDetails();
    void validate();
};
```

```
class Bank_transfer : public Payment{
private:
    int transfer_no;
    string name_of_bank;

public:
    void Bank_teansfer();
    void Bank_transfer(int ptransfer_no, char[8] pname_of_bank);
};
```

```
class visa_master_card : public Payment{
private:
    int card_no;
    char card_exp_date[6];

public:
    void visa_master_card();
    void visa_master_card(int pcard_no,char[8] pcard_exp_date);
};
```

//done by it21179594

```
class unregistered_user{
public:
    void find_availble_doctors(char specilization[50],Doctor *d);
    void Register();
};
```

```
//done by it21179730
```

```
class lab_assistant{
    private:
        char lab_assi_id[6];
        char lab_assi_name[50];
        lab_report *rp[size];
    public:
        lab_assistant();
        void upload_lab_report();
        void check_report_requets();
        void assi_log_in();
};
```

```
int main()
{

    patient p1;
    appoinment a1;
    doctor d1;
    lab_report l1;
    ambulance amb1;
    payment p1;
    Bank_transfer b1;
    visa_master_card v1;
    lab_assistant ass1;
    unregistered_user us1;


    return 0;
}
```