

# Core Java Project

## Assignment Question

1. As a Human it is very common to face medical emergencies in life. Create an application to facilitate the functionality for the patient to book an appointment with a doctor and maintain details about patient and hospital. Doctor to maintain all patient information. (The agenda of application is to replicate Hospital management and you can implement your own idea in your own way).

Ans :

```
import java.util.*;

class Hospital{
    Scanner sc = new Scanner(System.in);

    int p = 0;
    int y;
    private String n;

    private class Patient{
        String name,dece,pId,add,mobNo,age;

        Patient (String name, String age, String dece, String pId, String
mobNo, String add){
            this.name = name;
            this.age = age;
            this.dece = dece;
            this.pId = pId;
            this.mobNo = mobNo;
            this.add = add;
        }
    }

    private class Doctor{
        String docName,docSpeci, docId, docMobNo;
        Doctor(String docName, String docMobNo,String docSpeci,String docId){
            this.docName = docName;
            this.docMobNo = docMobNo;
            this.docSpeci = docSpeci;
        }
    }
}
```

```

        this.docId = docId;
    }
}

private class Appointment{
    String patId, doId, apId, apDate, apTime;
    Appointment(String patId, String doId, String apId, String apDate,
String apTime){
        this.patId = patId;
        this.doId = doId;
        this.apId = apId;
        this.apDate = apDate;
        this.apTime = apTime;
    }
}

private ArrayList<Patient> al = new ArrayList<>();
private ArrayList<Doctor> al2 = new ArrayList<>();
private ArrayList<Appointment> al3 = new ArrayList<>();
private ArrayList<String> nid = new ArrayList<String>();
private ArrayList<String> dodid = new ArrayList<String>();

public void mainMenu(){

    System.out.println("\nMain Menu : ");
    System.out.println();
    System.out.println(" 1. Register Patient \n 2. Register Doctor \n 3.
Book Appointment \n 4. View Patient  \n 5. View Doctor Details \n 6. View
Appointment Details \n 7. Exit");
    System.out.println();
    System.out.print("Enter your choice : ");
    int yourChoice = sc.nextInt();

    switch(yourChoice){
        case 1 : registerPatient();
        break;
        case 2 : registerDoctor();
        break;
        case 3 : bookingAppointment();
        break;
        case 4 : viewPatientDetails();
        break;
    }
}

```

```

        case 5 : viewDoctorDetails();
        break;
        case 6 : viewAppointmentDetails();
        break;
        case 7 :
            System.out.println();
            System.out.println("you are successfully exited the process");
            System.out.println();
            break;
        default : System.out.println("Please select from the above option,
try again");

        mainMenu();
    }

}

```

```

public void registerPatient(){
    System.out.println("\nEnter patient Details > \n");
    String e = sc.nextLine();
    System.out.print("Enter name of patient: ");
    String name = sc.nextLine();
    System.out.print("Enter age of patient : ");
    String age = sc.nextLine();

    System.out.print("Enter Patient disease : ");
    String dece = sc.nextLine();
    System.out.print("Enter patient Id : ");
    String pId = sc.nextLine();
    nid.add(pId);
    System.out.print("Enter mobile number of patient : ");
    String mobNo = sc.nextLine();
    System.out.print("Enter Address of patient : ");
    String add = sc.nextLine();

    Patient p = new Patient (name, age, dece, pId, mobNo, add);
    al.add(p);
    System.out.println("\nPatient Registered Successfully!\n");
    System.out.println("Enter 1 for main menu");
    int select = sc.nextInt();
    switch(select){
        case 1 : mainMenu();
        break;
    }
}

```

```

        default : System.out.println("please select from the above options");
        mainMenu();

    }
}

public void registerDoctor(){
    System.out.println("\nEnter Doctor Details > \n");

    String der = sc.nextLine();
    System.out.print("Enter name of Doctor : ");
    String docName = sc.nextLine();
    System.out.print("Enter mobile number of doctor : ");
    String docMobNo = sc.nextLine();
    System.out.print("Enter specilization of doctor : ");
    String docSpeci = sc.nextLine();
    System.out.print("Enter doctor Id : ");
    String docId = sc.nextLine();
    dodid.add(docId);

    Doctor d = new Doctor(docName, docMobNo, docSpeci, docId);
    al2.add(d);
    System.out.println();
    System.out.println("Doctor details registered successfully");
    System.out.println();
    System.out.println("Enter 1 for main menu");
    int select = sc.nextInt();
    switch(select){
        case 1 : mainMenu();
        break;
        default : System.out.println("please select from the above options");
        mainMenu();

    }

}

public void bookingAppointment(){
    System.out.println("\nEnter appointment details > \n");

    String tt = sc.nextLine();
    System.out.print("Enter patient Id : ");

```

```

String patId = sc.nextLine();
System.out.print("Enter doctor Id : ");
String doId = sc.nextLine();
System.out.print("Enter appointment Id : ");
String apId = sc.nextLine();
System.out.print("Enter date of appointment (DD-MM-YYYY) : ");
String apDate = sc.nextLine();
System.out.print("Enter time slot of appointment (HH-HH PM/AM) : ");
String apTime = sc.nextLine();

if(nid.contains(patId) && dodid.contains(doId)){
    Appointment a = new Appointment(patId, doId, apId, apDate, apTime);
    al3.add(a);
    System.out.println();
    System.out.println("Appointment registered successfully");
    System.out.println();
}
else{
    System.out.println();
    System.out.println("Patient or Doctor of this Id is not exist");
    System.out.println();
}
System.out.println("Enter 1 for main menu");
int select = sc.nextInt();
switch(select) {
    case 1 :   mainMenu();
    break;
    default :   System.out.println("please select from the above options");
    mainMenu();
}
}

public void viewPatientDetails(){
    System.out.println();
    for (Patient patient : al) {
        System.out.println("Name : " + patient.name + " | Age : " +
patient.age + " | Disease : " + patient.dece + " | Mobile No : " + patient.mobNo +
" | Id : " + patient.pId +
        " | Address : " + patient.add);
    }
}

```

```

        System.out.println();
        System.out.println("Enter 1 for main menu");
        int select = sc.nextInt();
        switch(select) {
            case 1 :   mainMenu();
            break;
            default :   System.out.println("please select from the above options");
            mainMenu();
        }
    }

    public void viewDoctorDetails() {
        System.out.println();
        for(Doctor Doctor : al2) {

            System.out.println("Name : " + Doctor.docName + " | Mobile.No : " +
Doctor.docMobNo + " | Specilization : " + Doctor.docSpeci + " | ID : " +
Doctor.docId );
        }
        System.out.println();
        System.out.println("\nEnter 1 for main menu");
        int select = sc.nextInt();
        switch(select) {
            case 1 :   mainMenu();
            break;
            default :   System.out.println("please select from the above options");
            mainMenu();
        }
    }

    public void viewAppointmentDetails() {
        System.out.println();
        for(Appointment Appointment : al3) {
            System.out.println("Patient Id : " + Appointment.patId + " | Doctor Id
: " + Appointment.doId + " | Appointment Id : " + Appointment.apId + " |
Appointment Date : " + Appointment.apDate + " | Appointment Time : " +
Appointment.apTime );
        }
        System.out.println();
    }
}

```

```
        System.out.println("Enter 1 for main menu");
        int select = sc.nextInt();
        switch(select){
            case 1 :    mainMenu();
                        break;
            default :   System.out.println("please select from the above options");
                        mainMenu();
        }
    }
}

public class HospitalManagementProject{
    public static void main(String[]args){
        Hospital h = new Hospital();
        h.mainMenu();
    }
}
```