[BMKanij/OOP\_LAB\_WORK (github.com)](https://github.com/BMKanij/OOP_LAB_WORK/tree/main)

[OOP\_LAB\_WORK/Final project (HospitalManagementSystem ) (1).zip at main · BMKanij/OOP\_LAB\_WORK (github.com)](https://github.com/BMKanij/OOP_LAB_WORK/blob/main/Final%20project%20%20(HospitalManagementSystem%20)%20(1).zip)

[OOP\_LAB\_WORK/Project (UML).pdf at main · BMKanij/OOP\_LAB\_WORK (github.com)](https://github.com/BMKanij/OOP_LAB_WORK/blob/main/Project%20(UML).pdf)

Project name: Hospital Management System.

Project code:

package Classes;  
  
public abstract class Person {  
  
 String name, contact, status;  
 int id;  
  
 static int *id1* = 0;  
 public Person(String name, String contact) {  
 this.name = name;  
 this.id = *id1*;  
 *id1*++;  
 this.contact = contact;  
 this.status = "Active";  
 }  
  
 public abstract void show();  
  
 public abstract void add();  
  
 public abstract void remove();  
}

package Classes;  
  
import java.util.ArrayList;  
import java.util.Scanner;  
  
public class Patient extends Person{  
  
 Scanner in = new Scanner(System.*in*);  
  
 int age;  
 String reason;  
  
 public static ArrayList<Patient> *patients* = new ArrayList<>();  
 public Patient(String name, String contact, int age, String reason) {  
 super(name, contact);  
 this.age = age;  
 this.reason = reason;  
 }  
  
 public static void showPatient(){  
 System.*out*.println("Patients List: ");  
 System.*out*.println(" | ID | Name | ContactNo. | Age | ReasonForAdmission | ");  
 for(Patient i : *patients*){  
 if(i.status == "Active") {  
 System.*out*.println(" | " + i.id + " | " + i.name + " | " +  
 i.contact + " | " + i.age + " | " + i.reason);  
 }  
 }  
 }  
  
 public static void addPatient(){  
  
 Scanner in = new Scanner(System.*in*);  
 System.*out*.print("Enter patient's name : ");  
 String name = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter patient's contactNo. : ");  
 String contact = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter patient's age : ");  
 int age = in.nextInt();  
 in.nextLine();  
 System.*out*.print("Enter student's reason for admission : ");  
 String reason = in.nextLine();  
 in.nextLine();  
 *patients*.add(new Patient(name, contact, age, reason));  
 System.*out*.println("Patient added successfully.");  
 }  
  
 public static void removePatient(){  
 Scanner in = new Scanner(System.*in*);  
 *showPatient*();  
 System.*out*.print("\nEnter patient Id : ");  
 int id = in.nextInt();  
 in.nextLine();  
 Patient patient = *patients*.get(id);  
 patient.status = "Inactive";  
 System.*out*.println("Patient removed successfully.");  
 }  
 @Override  
 public void show() {  
 *showPatient*();  
 }  
  
 @Override  
 public void add() {  
 *addPatient*();  
 }  
  
 @Override  
 public void remove() {  
 *removePatient*();  
 }  
}

package Classes;  
  
public interface Hospital {  
  
 String getHospitalName();  
  
 void setHospitalName(String HospitalName);  
  
 String getHospitalAddress();  
  
 void setHospitalAddress(String hospitalAddress);  
}

package Classes;  
  
import java.util.ArrayList;  
import java.util.Scanner;  
  
public class Doctor extends Person{  
  
 Scanner in = new Scanner(System.*in*);  
 String specialist, qualification;  
  
 public static ArrayList<Doctor> *doctors* = new ArrayList<>();  
  
 public Doctor(String name, String contact, String specialist, String qualification) {  
 super(name, contact);  
 this.specialist = specialist;  
 this.qualification = qualification;  
 }  
  
 public static void showDoctor(){  
 System.*out*.println("Doctors List: ");  
 System.*out*.println(" | ID | Name | ContactNo. | Specialist | Qualification | ");  
 for(Doctor i : *doctors*){  
 if(i.status == "Active") {  
 System.*out*.println(" | " + i.id + " | " + i.name + " | " + i.contact + " | " +  
 i.specialist + " | " + i.qualification);  
 }  
 }  
 }  
  
 public static void addDoctor(){  
 Scanner in = new Scanner(System.*in*);  
 System.*out*.print("Enter doctor's name : ");  
 String name = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter doctor's contactNo. : ");  
 String contact = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter doctor's specialist : ");  
 String specialist = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter doctor's qualification : ");  
 String qualification = in.nextLine();  
 in.nextLine();  
 *doctors*.add(new Doctor(name, contact, specialist, qualification));  
 System.*out*.println("Doctor added successfully.");  
 }  
  
 public static void removeDoctor(){  
 Scanner in = new Scanner(System.*in*);  
 *showDoctor*();  
 System.*out*.print("\nEnter doctor Id : ");  
 int id = in.nextInt();  
 in.nextLine();  
 Doctor doctor = *doctors*.get(id);  
 doctor.status = "Inactive";  
 System.*out*.println("Doctor removed successfully.");  
 }  
 @Override  
 public void show() {  
 *showDoctor*();  
 }  
  
 @Override  
 public void add() {  
 *addDoctor*();  
 }  
  
 @Override  
 public void remove() {  
 *removeDoctor*();  
 }  
}

package Classes;  
  
public class CHL implements Hospital {  
  
 private String hospitalName = "Care Hospital Limited";  
 private String hospitalAddress = "Ashulia, Shavar, Dhaka.";  
  
 @Override  
 public String getHospitalName() {  
 return hospitalName;  
 }  
  
 @Override  
 public void setHospitalName(String hospitalName) {  
 this.hospitalName = hospitalName;  
 }  
  
 @Override  
 public String getHospitalAddress() {  
 return hospitalAddress;  
 }  
  
 @Override  
 public void setHospitalAddress(String hospitalAddress) {  
 this.hospitalAddress = hospitalAddress;  
 }  
}

package AdminModule;  
  
import Classes.Patient;  
import Classes.Doctor;  
  
import java.util.Scanner;  
  
public class Main {  
 static void home(){  
 Scanner in = new Scanner(System.*in*);  
 Admin admin = new Admin();  
 int option;  
 do{  
 Admin.*template*();  
 System.*out*.println(" 1. Login as Admin");  
 System.*out*.println(" 2. Exit");  
 System.*out*.print("\n Choose an option: ");  
 option = in.nextInt();  
 switch (option){  
 case 1:  
 admin.validLogin();  
 break;  
 case 2:  
 break;  
 default:  
 System.*out*.println("Choose an correct option.");  
 break;  
 }  
 }while ((option != 2));  
 }  
  
 public static void main(String[] args) {  
 //for pre add  
 //Patient.patients.add(new Patient(name, contact, age, reason));  
 //Doctor.doctors.add(new Doctor(name, contact, specialist, qualification));  
 Main.*home*();  
 }  
}

package AdminModule;  
  
import Classes.Doctor;  
import Classes.Patient;  
  
import java.util.Scanner;  
  
public class Admin {  
 String userName = "admin";  
 String password = "admin";  
  
 Scanner in = new Scanner(System.*in*);  
  
 static void template(){  
 System.*out*.println("\n------------------------------------------------------------------------------------------------------------------");  
 System.*out*.println("| Care Hospital Limited |");  
 System.*out*.println("------------------------------------------------------------------------------------------------------------------\n");  
 }  
  
 void validLogin(){  
 System.*out*.print("Enter admin username: ");  
 String userName = in.nextLine();  
 in.nextLine();  
 System.*out*.print("Enter admin password: ");  
 String password = in.nextLine();  
 in.nextLine();  
 menu();  
 }  
 void menu() {  
 int option;  
 do{  
 *template*();  
 System.*out*.println(" \*\*\* Admin Section \*\*\*");  
 System.*out*.println(" 1. Show");  
 System.*out*.println(" 2. Add");  
 System.*out*.println(" 3. Remove");  
 System.*out*.println(" 4. Logout");  
 System.*out*.print("\n Choose an option: ");  
 option = in.nextInt();  
 switch (option) {  
 case 1:  
 int option1;  
 do{  
 System.*out*.println("\n-------------------------------\n");  
 System.*out*.println(" 1. Show Patient");  
 System.*out*.println(" 2. Show Doctor");  
 System.*out*.println(" 3. Back");  
 System.*out*.print("\n Choose an option: ");  
 option1 =in.nextInt();  
 switch (option1) {  
 case 1:  
 Patient.*showPatient*();  
 break;  
 case 2:  
 Doctor.*showDoctor*();  
 break;  
 case 3:  
 break;  
 default:  
 System.*out*.print("Choose an correct option: ");  
 break;  
 }  
 }while( option1 != 3 );  
 break;  
 case 2:  
  
 int option2;  
 do{  
 System.*out*.println("\n-------------------------------\n");  
 System.*out*.println(" 1. Add Patient");  
 System.*out*.println(" 2. Add Doctor");  
 System.*out*.println(" 3. Back");  
 System.*out*.print("\n Choose an option: ");  
 option2 =in.nextInt();  
 switch (option2) {  
 case 1:  
 Patient.*addPatient*();  
 break;  
 case 2:  
 Doctor.*addDoctor*();  
 break;  
 case 3:  
 break;  
 default:  
 System.*out*.print("Choose an correct option: ");  
 break;  
 }  
 }while( option2 != 3 );  
 break;  
 case 3:  
 int option3;  
 do{  
 System.*out*.println("\n-------------------------------\n");  
 System.*out*.println(" 1. Remove Patient");  
 System.*out*.println(" 2. Remove Doctor");  
 System.*out*.println(" 3. Back");  
 System.*out*.print("\n Choose an option: ");  
 option3 =in.nextInt();  
 switch (option3) {  
 case 1:  
 Patient.*removePatient*();  
 break;  
 case 2:  
 Doctor.*removeDoctor*();  
 break;  
 case 3:  
 break;  
 default:  
 System.*out*.print("Choose an correct option: ");  
 break;  
 }  
 }while( option3 != 3 );  
 break;  
 case 4:  
 break;  
 default:  
 System.*out*.print("Choose an correct option: ");  
 break;  
 }  
 }while ( option != 4);  
 }  
 public String getUsername() {  
 return userName;  
 }  
  
 public void setUsername(String username) {  
 this.userName = username;  
 }  
  
 public String getPassword() {  
 return password;  
 }  
  
 public void setPassword(String password) {  
 this.password = password;  
 }  
}

**UML:**

