Main Class:

package MakyHospital;

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import java.io.File;

import java.io.FileNotFoundException;

import java.io.FileWriter;

import java.io.IOException;

import java.util.Scanner;

public class MakyHospital {

static PatientList plist = new PatientList();

static DoctorsList dlist=new DoctorsList();

public static void main(String[] args) {

readPFile();

readDFile();

Scanner s=new Scanner(System.in);

String choice;

while(true)

{

MainMenu();

choice=s.nextLine();

if(choice.equals("1"))

{

System.out.println("\n Doctor ID");

String id = s.nextLine();

System.out.println("\n Doctor Name");

String name = s.nextLine();

System.out.println("\n Doctor Contact ");

String contact = s.nextLine();

System.out.println("\n Doctor Speciality");

String spec = s.nextLine();

System.out.println("\n Doctor Salary");

int Salary = s.nextInt();

s.nextLine();

Doctor d= new Doctor(id,name,contact,spec,Salary);

dlist.Insert(d);

writeDFile();

}

else if(choice.equals("2"))

{

System.out.println("\n Patient ID");

String id = s.nextLine();

System.out.println("\n Patient Name");

String name = s.nextLine();

System.out.println("\n Patient Contact ");

String contact = s.nextLine();

Patient patient = new Patient(id,name,contact);

plist.Insert(patient);

plist.PrintData();

writePFile();

}

else if(choice.equals("3"))

{

dlist.PrintData();

}

else if(choice.equals("4"))

{

plist.PrintData();

}

else if(choice.equals("5"))

{

String pdata="";

try {

File myObj = new File("prec.txt");

Scanner myReader = new Scanner(myObj);

while (myReader.hasNextLine()) {

String data = myReader.nextLine();

pdata+=data+"\n";

}

myReader.close();

} catch (FileNotFoundException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

System.out.println("\nWelcome To CheckUp Menu \n");

CheckUpList[] clist = new CheckUpList[dlist.size()];

for(int i=0;i<clist.length;i++)

{

clist[i] = new CheckUpList();

Doctor doctor= dlist.getAtIndex(i);

System.out.println("\n\nEnter Patient For Doctor ");

System.out.println("Name :"+doctor.getName());

System.out.println("Speciality :"+doctor.getSpeciality());

System.out.println("Salary :"+doctor.getSalary());

System.out.println("All Patients :");

plist.PrintData();

while(true)

{

System.out.println("Enter Patient Id Or type null to Stop");

String id=s.nextLine();

if(id.equals("null"))

{

break;

}

System.out.println("Priority 3 for Emergency 2 for Intermediate any other key for normal ");

String per=s.nextLine();

int p=1;

if(per.equals("3"))

{

p=3;

}

else if(per.equals("2"))

{

p=2;

}

Patient patient=plist.searchByID(id);

if(patient==null)

{

System.out.println("\nInvalid Patient ID ! \n");

}

else

{

Checkup cup = new Checkup(doctor,patient,p,"",""+java.util.Calendar.getInstance().getTime().toString());

clist[i].Enqueue(cup);

}

}

}

for(int i=0;i<clist.length;i++)

{

System.out.println("\n\n Patient "+(i+1)+" In Queue For Doctor "+dlist.getAtIndex(i).getName());

for(int j=0;j<clist[i].size();j++)

{

printPerRec(dlist.getAtIndex(i).getId(),clist[i].getPatient(j).getId(),pdata);

System.out.println("Enter Recomendation For Patient : "+clist[i].getPatient(j));

String rec=s.nextLine();

clist[i].addRecomendation(j, rec);

}

}

try {

String data="";

for(int i=0;i<clist.length;i++)

{

for(int j=0;j<clist[i].size();j++)

{

Checkup cup=clist[i].getAtIndex(j);

if(cup==null)

{

break;

}

data+=cup.getDcotor().getId()+";"+cup.getDcotor().getName()+";"+cup.getPatient().getId()+";"+cup.getPatient().getName()+";"+cup.getRecomendation()+";"+cup.getDate()+"\n";

}

}

FileWriter myWriter = new FileWriter("prec.txt");

myWriter.append(pdata+"\n"+data);

myWriter.close();

System.out.println("Save data to file");

} catch (IOException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

}

else if(choice.equals("0"))

{

break;

}

else

{

System.out.println("\n\nInvalid Choice ! \n");

}

}

}

public static void MainMenu()

{

System.out.println("\n\n || Maky Hospital ||");

System.out.println(" --------------");

System.out.println(" || Main Menu ||");

System.out.println(" -----------------");

System.out.println("\nEnter 1 for Insert New Doctor ");

System.out.println("Enter 2 for Insert Patient ");

System.out.println("Enter 3 for Print all Doctor ");

System.out.println("Enter 4 for Print all Patients ");

System.out.println("Enter 5 for CheckUp Menu ");

System.out.println("Enter 0 for Exit ");

}

private static void writeDFile() {

try {

String data="";

for(int i=0;i<dlist.size();i++)

{

Doctor doc= dlist.getAtIndex(i);

data+=doc.getId()+";"+doc.getName()+";"+doc.getContact()+";"+doc.getSpeciality()+";"+doc.getSalary()+"\n";

}

FileWriter myWriter = new FileWriter("ddata.txt");

myWriter.write(data);

myWriter.close();

System.out.println("Successfully record added.");

} catch (IOException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

}

private static void readDFile() {

try {

File myObj = new File("ddata.txt");

Scanner myReader = new Scanner(myObj);

while (myReader.hasNextLine()) {

String data = myReader.nextLine();

if(data.length()>5)

{

String[] cus= data.split(";");

dlist.Insert(new Doctor(cus[0],cus[1],cus[2],cus[3],Integer.parseInt(cus[4])));

}

}

myReader.close();

} catch (FileNotFoundException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

}

private static void writePFile() {

try {

String data="";

for(int i=0;i<plist.size();i++)

{

Patient patient= plist.getAtIndex(i);

data+=patient.getId()+";"+patient.getName()+";"+patient.getContact()+"\n";

}

FileWriter myWriter = new FileWriter("pdata.txt");

myWriter.write(data);

myWriter.close();

System.out.println("Successfully record added.");

} catch (IOException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

}

private static void readPFile() {

try {

File myObj = new File("pdata.txt");

Scanner myReader = new Scanner(myObj);

while (myReader.hasNextLine()) {

String data = myReader.nextLine();

if(data.length()>5)

{

String[] cus= data.split(";");

plist.Insert(new Patient(cus[0],cus[1],cus[2]));

}

}

myReader.close();

} catch (FileNotFoundException e) {

System.out.println("An error occurred.");

e.printStackTrace();

}

}

private static void printPerRec(String did, String pid, String pdata) {

String [] da=pdata.split("\n");

System.out.println("\n Previous record \n");

for(int i=0;i<da.length;i++)

{

if(da[i].length()>1)

{

if(did.equals(da[i].split(";")[0]) && pid.equals(da[i].split(";")[2]))

{

System.out.println("Rcomendation "+da[i].split(";")[4]+" Date "+da[i].split(";")[5]);

}

}

}

System.out.println("\n");

}

}