Class DoctorList:

package MakyHospital;

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class DNode{

Doctor doctor;

DNode next,pre;

public DNode() {

}

public DNode(Doctor doctor) {

this.doctor = doctor;

next=null;

pre=null;

}

}

public class DoctorsList

{

DNode head,tail;

public DoctorsList() {

head=null;

tail=null;

}

public void Insert(Doctor doctor)

{

DNode node = new DNode(doctor);

if(head==null|| tail==null)

{

head=node;

tail=node;

}

else

{

head.next= node;

node.pre=head;

head=node;

}

}

public Doctor searchByID(String id)

{

DNode temp=head;

while(temp!=null)

{

if(temp.doctor.getId().equals(id))

{

return temp.doctor;

}

temp=temp.pre;

}

return null;

}

public Doctor searchByContact(String contact)

{

DNode temp=head;

while(temp!=null)

{

if(temp.doctor.getContact().equals(contact))

{

return temp.doctor;

}

temp=temp.pre;

}

return null;

}

public void AllDoctorInfo(){

DNode temp=head;

while(temp!=null)

{

System.out.println("Doctor ID = "+temp.doctor.getId()+" Speciality ="+temp.doctor.getSpeciality());

temp=temp.pre;

}

}

public Doctor getAtIndex(int index)

{

DNode temp=head;

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

{

if(i==index)

{

break;

}

temp=temp.pre;

}

return temp.doctor;

}

public int size()

{

DNode temp=head;

int count=0;

while(temp!=null)

{

count++;

temp=temp.pre;

}

return count;

}

public void PrintData()

{

DNode temp=head;

int count=0;

while(temp!=null)

{

count++;

System.out.println(count+": "+temp.doctor.toString());

temp=temp.pre;

}

}

}