HOSPITAL MANAGEMENT SYSTEM

Nalan Gelir: 20200808030
Meryem Ahıskalı: 20200808054

SINGLETON

```
class Appointment{
    private static Appointment uniqueAppointment =new Appointment();
    public LinkedList<AppointmentModel> appointments = new LinkedList<>();
    private Appointment(){}
    public static Appointment getAppointment(){
        return uniqueAppointment;
    }
    public void displayAppointments() {
        System.out.println("Appointments:");
        for (AppointmentModel appointment : appointments) {
            System.out.println(appointment.fullName);
        }
    }
}
```

Appointment

- uniqueAppointment : Appointment
+ appointments : LinkedList<>

+ getAppointments() : Appointment
+displayAppointments() : void

COMMAND

```java
Doctor doctorDeniz = new Doctor("Deniz","Lale",Department.RADIOLOGY);
Patient patientAlp = new Patient("Alp","Best");
Nurse nurse = new Nurse("Aylin","Aksu",Department.RADIOLOGY);
Laborant laborant = new Laborant("Feride","Ekici");
Treatment treatment = new Inspection();


HormoneTest hormoneTest = new HormoneTest(laborant, treatment, patientAlp, doctorDeniz);
nurse.setTests(hormoneTest);
nurse.sendTest();


HemogramTest hemogramTest = new HemogramTest(laborant,treatment,patientAlp,doctorDeniz);
nurse.setTests(hemogramTest);
nurse.sendTest();
```
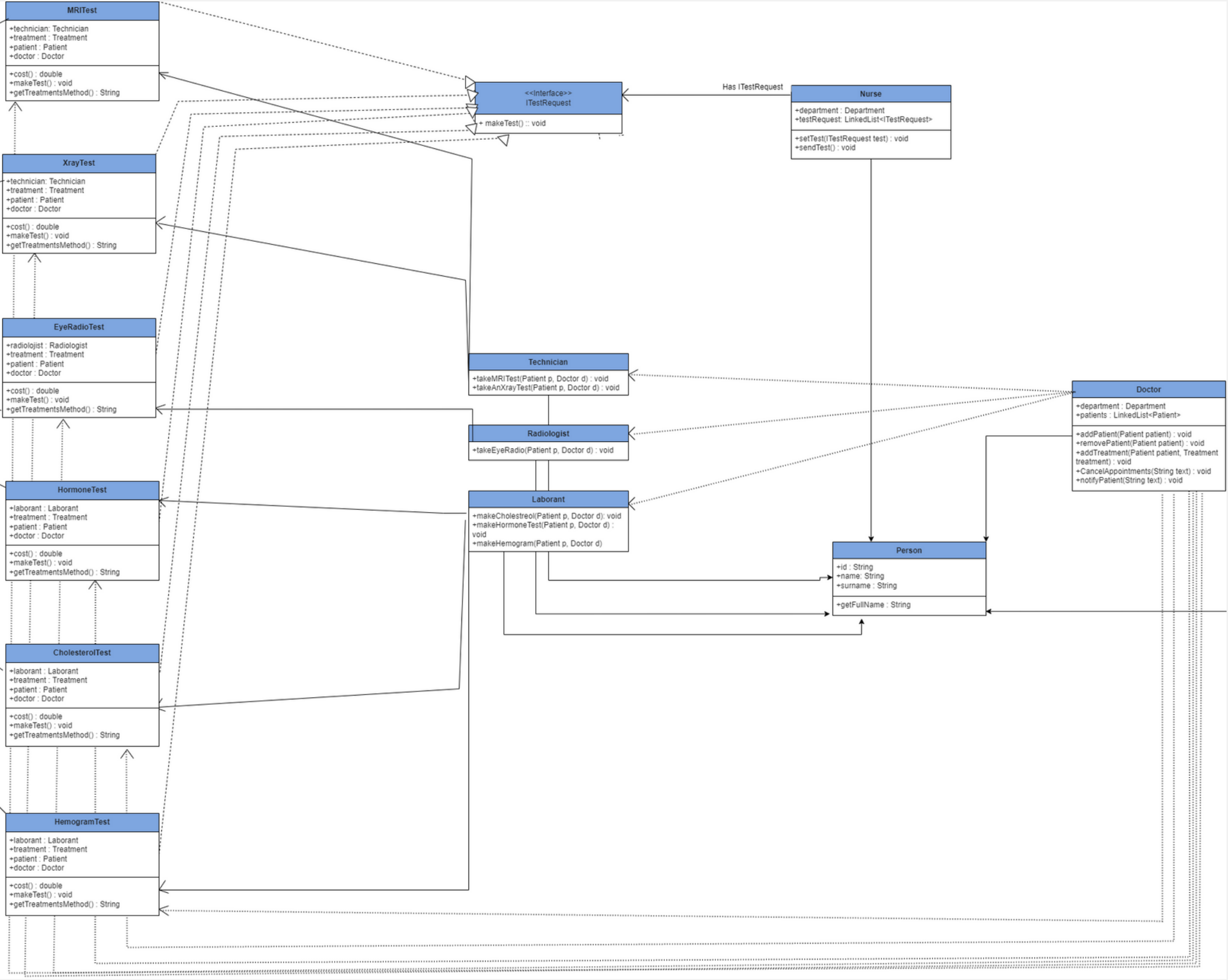
```
Hormone test requested by Deniz Lale taken forAlp Best and reported.
Hemogram test requested by Deniz Lale taken forAlp Best and reported.
```

MRITest

+technician: Technician
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

XrayTest

+technician: Technician
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

EyeRadioTest

+radiolojist : Radiologist
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

HormoneTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

CholesterolTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

HemogramTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

**<<Interface>>
ITestRequest**

+ makeTest() :: void

Has ITestRequest

Nurse

+department : Department
+testRequest: LinkedList<ITestRequest>

+setTest(ITestRequest test) : void
+sendTest() : void

Technician

+takeMRITest(Patient p, Doctor d) : void
+takeAnXrayTest(Patient p, Doctor d) : void

Radiologist

+takeEyeRadio(Patient p, Doctor d) : void

Laborant

+makeCholestreol(Patient p, Doctor d): void
+makeHormoneTest(Patient p, Doctor d) :
void
+makeHemogram(Patient p, Doctor d)

Doctor

+department : Department
+patients : LinkedList<Patient>

+addPatient(Patient patient) : void
+removePatient(Patient patient) : void
+addTreatment(Patient patient, Treatment
treatment) : void
+CancelAppointments(String text) : void
+notifyPatient(String text) : void

Person

+id : String
+name: String
+surname : String

+getFullName : String

DECORATOR

```java
Doctor doctor = new Doctor("Deniz","Lale",Department.RADIOLOGY);
Patient patient= new Patient("Alp","Best");
Nurse nurse = new Nurse("Aylin","Aksu",Department.RADIOLOGY);
Laborant laborant = new Laborant("Feride","Ekici");

Treatment treatment = new Inspection();
treatment = new HormoneTest(laborant, treatment,patient,doctor);
treatment = new HemogramTest(laborant, treatment,patient,doctor);

System.out.println( treatment.getTreatmentsMethod() +"\n"+treatment.Cost());
```
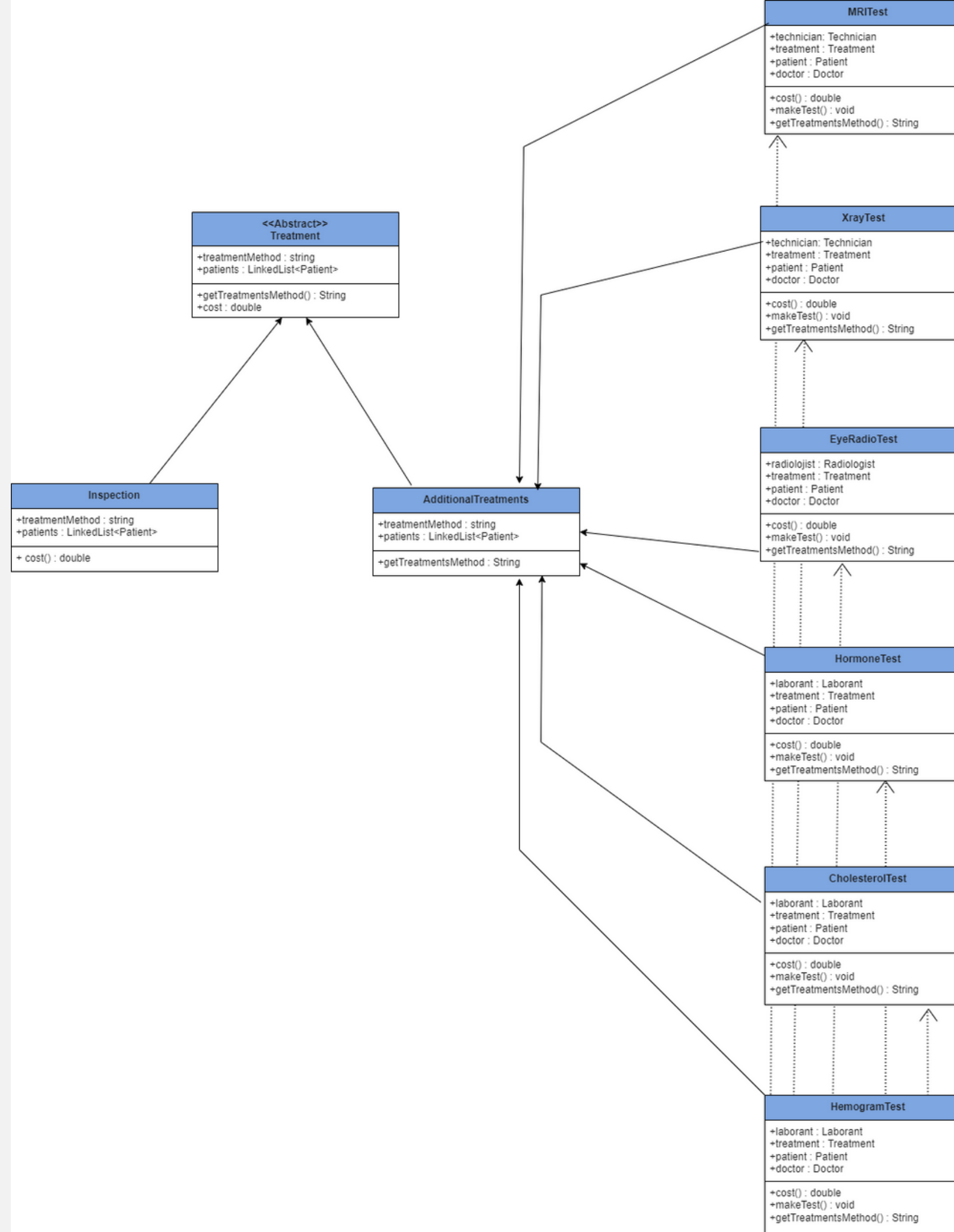
```
Inspection, HormoneTest, HemogramTest
530.0
```

MRITest

+technician: Technician
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

XrayTest

+technician: Technician
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

EyeRadioTest

+radiolojist : Radiologist
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

HormoneTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

CholesterolTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

HemogramTest

+laborant : Laborant
+treatment : Treatment
+patient : Patient
+doctor : Doctor

+cost() : double
+makeTest() : void
+getTreatmentsMethod() : String

<<Abstract>>
Treatment

+treatmentMethod : string
+patients : LinkedList<Patient>

+getTreatmentsMethod() : String
+cost : double

Inspection

+treatmentMethod : string
+patients : LinkedList<Patient>

+ cost() : double

AdditionalTreatments

+treatmentMethod : string
+patients : LinkedList<Patient>

+getTreatmentsMethod : String

OBSERVER

```
Doctor doctor = new Doctor("Deniz","Lale",Department.RADIOLOGY);
Patient patient = new Patient("Alp","Best");
Patient patient1 = new Patient("Nalan", "Gelir");

doctor.addPatient(patient);
doctor.addPatient(patient1);

doctor.CancelAppointments("Cancelled");
```

```
Appointment Cancelled for Alp Best
Appointment Cancelled for Nalan Gelir
```

UML DIAGRAM