Hospital

▼ Attributes
- doctors: List<Doctor>
- admins: List<Admin>
- rooms: List<Room>
- Patients: List<Resident>

▼ Operations
+ main(arcgs[]: String)

Admin

▼ Attributes
- hospital: Hospital

▼ Operations
Admin(n: string, ID: int, h: Hospital)
+ getHospital(): Hospital
+ changeHospital(h: Hospital)

Doctor

▼ Attributes
- specialty: List<String>
- hopitals: List<Hospital>

▼ Operations
Doctor(n: String, ID: int, s: List<String>, h: List<Hospital>)
+ getSpecialty(): List<String>
+ getHospitals(): List<Hospital>
+ hasSpecialty(specialty: String): Boolean
+ addHospital(h: Hospital)
+ addSpecialty(s: String)

Visit

▼ Attributes
- doctor: Doctor
- patient: Patient
- visitDate: Date
- summary: String

▼ Operations
Visit(d: Doctor, p: Patient, d: Date, s: String)
+ getDoctor(): Doctor
+ getPatient(): Patient
+ getDate(): Date
+ getSummary(): String

Room

▼ Attributes
- roomID: int
- beds: List<Bed>

▼ Operations
Room(ID: int, b: List<Beds>)
+ getRoomNumber(): int
+ getBeds(): List<Bed>
+ isFull(): Boolean

Person

▼ Attributes
- name: String
- ID: int

▼ Operations
Person(name: String, ID: int)
+ getName(): String
+ getID(): int

Resident

▼ Attributes
- bed: Bed
- assignedDoctor: Doctor
- dateUntilStay: Date

▼ Operations
Resident(n: String, a: int, ID: int, aD: Date, d: Doctor, d: Date, r List<Room>)
+ getBed(): Bed
+ getRoom(): Room
+ getDoctor(): Doctor
+ getStayUntilDate(): Date
- assignBed(r: List<Room>)
+ updateToVisitor(): Visitor

Bed

▼ Attributes
- patient: Resident
- room: Room

▼ Operations
Bed(r: int)
+ getRoom(): Room
+ getPatient(): Resident
+ changePatient(p: Resident)
+ isInUse(): Boolean

Patient

▼ Attributes
- admissionDate: Date
- lastVisit: Date
- timesVisited: int
- age: int
- visits: List<Visit>

▼ Operations
Patient(name: String, age:int, ID: int, aD: Date)
+ getAge(): int
+ getVisitInfo(): List<VisitInfo>
+ getTimesVisited(): int
+ getLastVisit(): Date
+ updateLastVisit(v: Visit)
+ getAdimissionDate(): Date

Visitor

▼ Attributes
- nextVisit: Date

▼ Operations
Visitor(name: String, age:int, ID: int, aD: Date, lastVisit: Date, nextVisit: Date)
+ getNextVisit(): Date
+ updateNextVisit(nV: Date)

Date

▼ Attributes
- day: int
- month: int
- year: int

▼ Operations
Date(d: int, m: int, y: int)
+ getDay(): int
+ getMonth(): int
+ getYear(): int

On the Resident constructor we decided to pass a List of Room objects to get from there an empty bed with assingBed(r: List<Room>) function. That uses functions isFull(): Boolean and isInUse(): Boolean to reach an empty Bed.

We also included a function updateToVisitor(): Visitor that changes the current Resident instance to a Visitor instance and returns the second one.

The summary of the visit it is with all the rest of the Visit information (Doctor and Patient), and can be reached through visits: List<Visit>. The last visit can be seen at the end of visits: List<Visit>, and the date is registered apart in lastVisit: Date variable.