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STEP 1. IDENTIFY all the necessary OBJECT within the problem domain

OBJECTS: PATIENT, ROOM, HOSPITAL

STEP 2. IDENTIFY all the properties and methods/behaviors in the problem statement

PATIENT

Properties (noun)

ID_Number:

name:

birthdate:

ROOM

Properties (noun)

number:

type: (Private or Semi-Private)

fee:

Behavior

askQuestion()

Behavior

updateRoom()

searchRoom()

HOSPITAL

Properties

Patient_id:

Room:

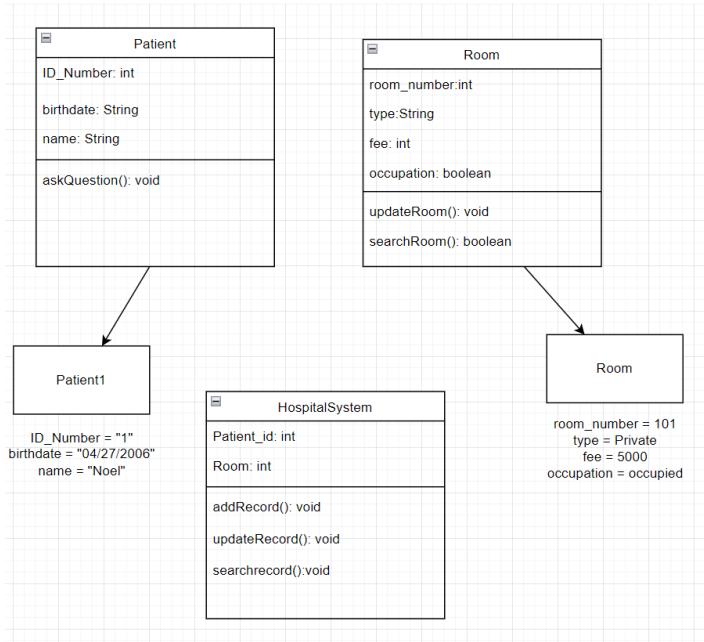
Behavior

addRecord()

updateRecord()

searchRecord()

STEP 3. Design the MODEL using a Class Diagram (You may use draw.io to represent the Blueprint of all the class that you need to create)



STEP 4. Implement the class using Java code construct of each interacting entities that you have identified.

```
1  public class Main
2  {
3      public static class PATIENT
4      {
5          int ID;
6          String name;
7          String birthdate;
8
9          void search(){
10             System.out.println("Patient ID: "+ID);
11             System.out.println("Name: "+name);
12             System.out.println("Birthdate: "+birthdate);
13         }
14     }
15
16     public static class ROOM
17     {
18         int number;
19         String type;
20         int fee;
21         boolean occupation;
22
23         boolean search(){
24             System.out.println("ROOM");
25             System.out.println("Number: "+number);
26             System.out.println("Type: "+type);
27             System.out.println("Fee: "+fee);
28             if(occupation == true){
29                 System.out.println("Occupation: occupied");
30             }
31             else {System.out.println("Occupation: Available");}
32             return occupation;
33         }
34     }
35 }
```

```
public static class HOSPITAL
{
    int patientID;
    int roomID;

    void update(int patient, int room){
        this.patientID = patient;
        this.roomID = room;
    }
    void searchPatient(int IDpatient){
        System.out.println();
        System.out.print("Patient "+IDpatient+" is located at Room "+roomID);
    }
}

public static void main(String[] args)
{
    HOSPITAL tiny = new HOSPITAL();

    ROOM roomNum = new ROOM();
    roomNum.number = 101;
    roomNum.type = "Private";
    roomNum.fee = 5000;
    roomNum.occupation = true;

    roomNum.search();

    PATIENT patient1 = new PATIENT();
    patient1.ID = 1;
    patient1.name = "NOEL";
    patient1.birthdate = "04/27/2006";

    patient1.search();

    tiny.update(patient1.ID , roomNum.number);
    tiny.searchPatient();
}
```