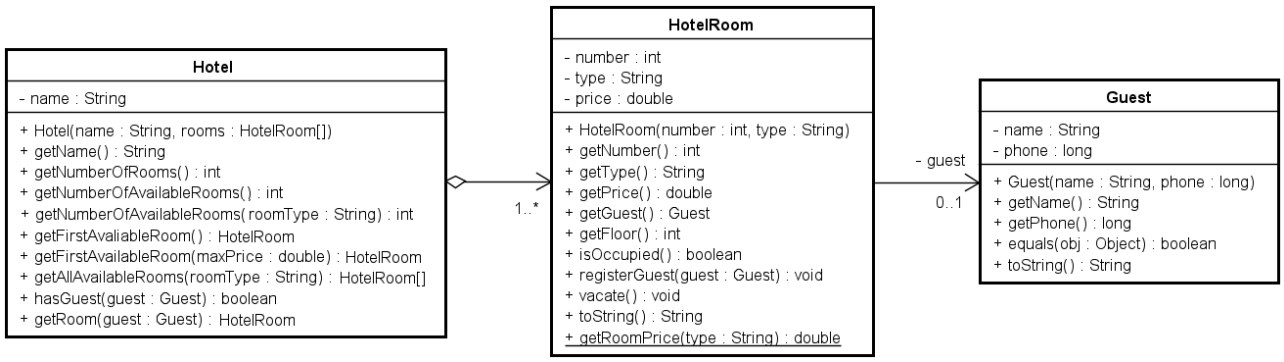
Exercise: Hotel

Implement the `Hotel` class as shown in the class diagram below. Note that classes `HotelRoom` and `Guest` can be taken from one of your previous exercises



Notes to class `Hotel`:

a) The class has 2 instance variable, one of type `String` and one of type `HotelRoom[]`
b) The two-argument constructor is setting the instance variables to whatever values of the parameter variables. In other words, you do not create an array but copy from the parameter variable (this mean that before creating/building the Hotel, you need all the rooms)
c) Getters for the hotel name.
d) A method `getNumberOfRooms()` returning the number of rooms, i.e. the length of the array.
e) A method `getNumberOfAvailableRooms()` returning the number of rooms not occupied. You need a loop counting the rooms not occupied.
f) Aon overloaded method `getNumberOfAvailableRooms(String roomType)` returning the number of rooms not occupied - and of the given room type. You need a loop counting the rooms not occupied which also has a room type equal to the parameter value.
g) A method `getFirstAvailableRoom()` returning an available room. Loop from index 0 until you find an available room and return it. If you ended the loop then return null to indicate that there were no available rooms.
h) An overloaded method `getFirstAvailableRoom(double maxPrice)` returning an available HotelRoom with a price less than or equal to `maxPrice`.
i) A method `getAllAvailableRooms` returning a room array with the available rooms. Note the length of the array can be found using method `getNumberOfAvailableRooms(roomType)`.
j) A boolean method `hasGuest(Guest guest)` returning true if any of the rooms has this specific guest.
k) A method `getRoom(Guest guest)` returning the room having this specific guest and null if no room has this guest.

Implement a test class with a `main` method in which you test your solution.