

Calendar availability

We have doctors. A doctor has an id, a name and available times.

```
{
  id: ID
  name: String
  times: [{ begin: "HH:MM", end: "HH:MM"}, {begin, end }, null]
}
```

The times array tells us how the doctor is working in a week. The length of the times array is always 7 as many days in the week, the index of the array is the day of the week (0 - Sunday, 1 - Monday, ...). If the item is null means is not working that day.

Then we have rooms. A room has same structure like a doctor having same availability times array.

We have also consultations. A consultation is done by a doctor in a room.

```
{
  id: ID
  doctorId: ID
  roomId: ID
  begin: Date
  end: Date
}
```

Having a state of doctors, rooms and consultations in the database, we need to make a request to the system to ask for a given period of time, the availability of a consultation of certain duration. The shape of the request is the following:

```
{  
  begin: Date,  
  end: Date  
  duration: Int  
}
```

The system will respond with an array with following shape [{ begin: Date, end: Date}, ...] which represent all continuous intervals in which we can make a consultation of that duration.

1. Formulate a list of questions regarding the task and send it back to us.
2. After you receive the answers please implement in nodejs, (express, hapi, or other), a small REST API which will have these endpoints :

POST /resources This endpoint will accept in the body a object

```
{  
  doctors: [{ id, name, times }]  
  rooms: [{ id, name, times }]  
}
```

GET /resources - will respond with last state { doctors, rooms }

POST /consultations - will accept the consultations array in the body

GET /consultations- will respond with the consultations

GET /availability?begin=xxx&end=yyy&duration=dddd - will respond with the array of available times