

Conference room reservation system

Implement a conference room reservation system for a company. The company has multiple buildings, multiple floors and each floor has multiple conference rooms.

- a) One must be able to book/unbook an idle room specifying the time.
 - i) `book(Room r, TimeDuration t, Person p)`
 - ii) `unbook(Room r, TimeDuration t, Person p)`
- b) System should be able to suggest possible set of rooms given a time duration and an optional query prefix. Query prefix can be prefix of building, floor etc.
 - i) `suggestRooms(TimeDuration t, String queryStr)`
- c) Should be able to fetch the summarised booking info of a room given a time duration.
 - i) `List<Booking> getSummary(Room r, TimeDuration t);`
- d) Enhance the suggestion function. You can suggest nearby time duration where meeting rooms are available if none of the room is available for the given time duration.

Expectation:

1. Code should be functionally complete.
2. Code should be modular.
3. Design should be extensible.
4. Code should be parameterized than hard coded.