

Hotel Booking App

You must implement the back end system of an application used for hotel booking management. The back end will expose REST endpoints with functionality, which are consumed by a separate front end system. Also, it will store the data in an SQL database.

You must implement the following endpoints:

- **add a room** – allows a user to add a new hotel room in the database. The following business rules are defined for this endpoint:
 - If in the database there is already a room with the same room number, the request will be rejected, and the user will receive the message “There is already an item with the same number”. If
 - The request to add an item has the following structure:

Field name	Present on the request	Mandatory on request	Present on response	Other validations
id	no	no	yes	PK, auto-generated on DB level
roomNumber	yes	yes	yes	Integer, unique value
type	yes	yes	yes	May be only one of the following values: SINGLE, DOUBLE, TRIPLE
comfort	yes	yes		May be only one of the following values: STANDARD, SUPERIOR
pricePerNight	yes	yes	yes	Double positive value
capacity	yes	yes	yes	Integer positive value, with a maximum of 4
status	yes	yes		May be only one of the following values: AVAILABLE, OCCUPIED
description	yes	no	yes	String value

- **delete a room** – allows a user to delete a room stored in the database. The user must specify the id of the room they want to delete. The deletion is allowed only if the status is “AVAILABLE”. In case the room is deleted, the response will contain only a successful HTTP code, no body. In the case the deletion is not allowed, the response body will contain the message “The room is occupied, it cannot be deleted.”

Unit tests will be implemented for the service methods, with a coverage of at least 70% per branch.

The type of the SQL DB is chosen by you.