Youtube Link: https://youtu.be/1UrlCACQ1xs

# User Types

There are two kinds of users: customer and admin.

# CRUD privileges on users

Customers have zero CRUD privileges on users

Admins have the following CRUD privileges:

* admins can create any new users.
* admins can read a list of all users
* admins can delete any user other than themselves
* admins cannot update users [Though admin simply delete and re-create the user which can fulfill that same purpose.

# No anonymous users

This means if you are not logged in then the only web page you can access if the login web page. Trying to access the URL of any other page will simply redirect you to the login page.

# CRUD privileges on bookings

Booking a room is essentially performing the C (create) in CRUD.

* the user who booked the room does not have to be the person staying the room. Therefore, a user can have separate rooms booked for the same duration
* The user that created the booking is the one assigned the room
* users can read their own bookings
* users can cancel their own bookings if the start date is more than one day into the future
* CRUD privileges are identical for both admin & customer

# Error handling on dates

When booking a room, users must adhere to the following error handling rules or be greeted by an error message:

* Ending date must be greater than starting date. (So starting date and ending date can’t be equal)
* Starting date and ending date can’t be in the past
* One customer can’t check in on the same day another customer checks out. This is to give a 24 hour window for cleaning staff to clean the room in preparation for the next customer
* Rooms can’t be double booked. Logically this means that the starting date [as well as ending date] for one booking can’t be between the starting date and ending date of another booking of the same room.

# CRUD privileges on rooms

Both admins and customers can view a list of rooms. But rooms can’t be delete, edited nor created.

# Bookings Admin

Admins have a special booking privilege called “Bookings Admin” where they can book any user to any room & can also cancel any booking at any time. But for “Bookings Admin”, the same error found on the dates in regular Bookings still apply:

* Ending date must be greater than starting date. (So starting date and ending date can’t be equal)
* Starting date and ending date can’t be in the past
* One customer can’t check in on the same day another customer checks out. This is to give a 24 hour window for cleaning staff to clean the room in preparation for the next customer
* Rooms can’t be double booked. Logically this means that the starting date [as well as ending date] for one booking can’t be between the starting date and ending date of another booking of the same room.

# Blocked Pages

Entity Framework Generates all the web pages needed for CRUD. If a certain CRUD feature is not needed (such as editing) then I essentially block its respective web page by renaming the web page from Name.cshtml to Name\_blocked.cshtml. The ActionResult method for the blocked web page is unchanged from what Entity Framework generates. This strategy is used rather than outright deleting the web page in case it is decided that the CRUD feature in question should be implemented rather than blocked.

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