

System Architectures – Lab 1

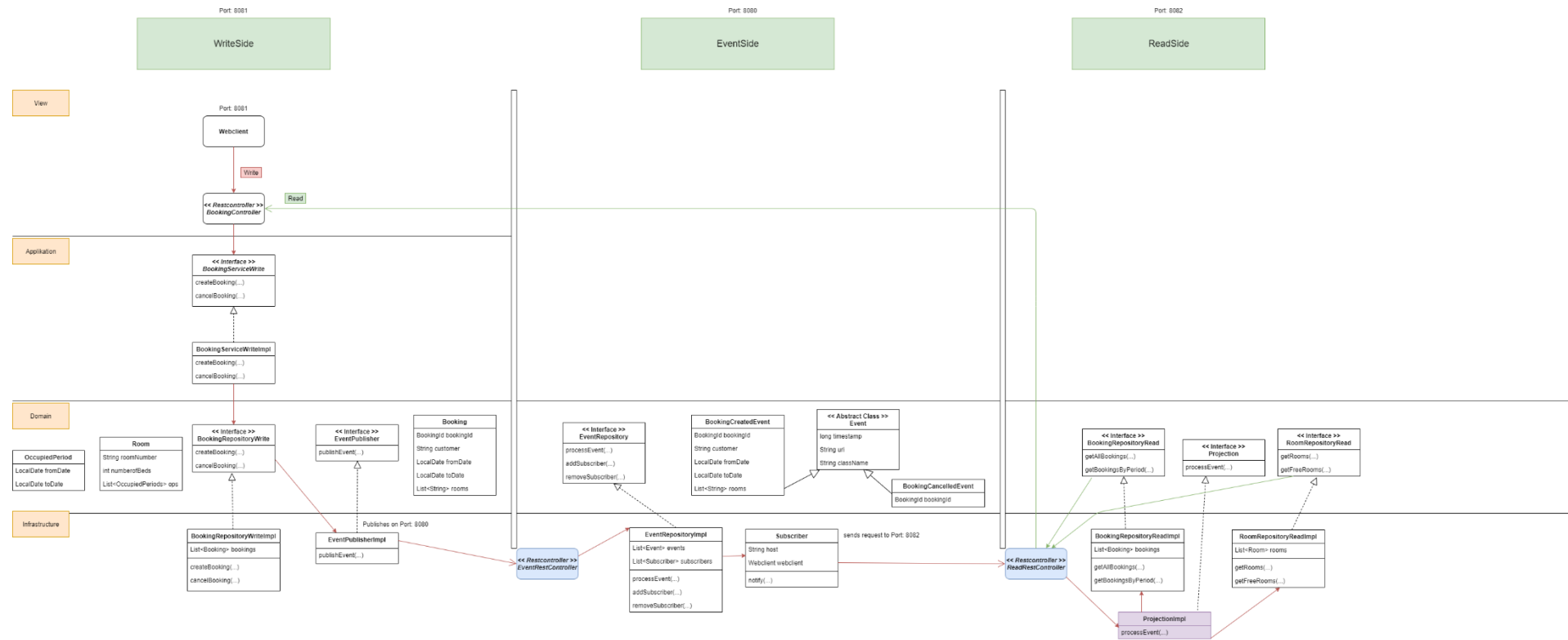
COMMAND AND QUERY RESPONSIBILITY SEGREGATION (CQRS)

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Inhalt

Diagram of the Project	2
Scenarios	3
Create a Booking	3
Show All Bookings	5
Show bookings within a specific period	7
Cancel a booking	9
Find free rooms	12
Test Cases	15
Rooms that have already been reserved for a certain period (for a booking) are not listed in the Room Overview	15
Rooms are released again when a booking is cancelled.....	17

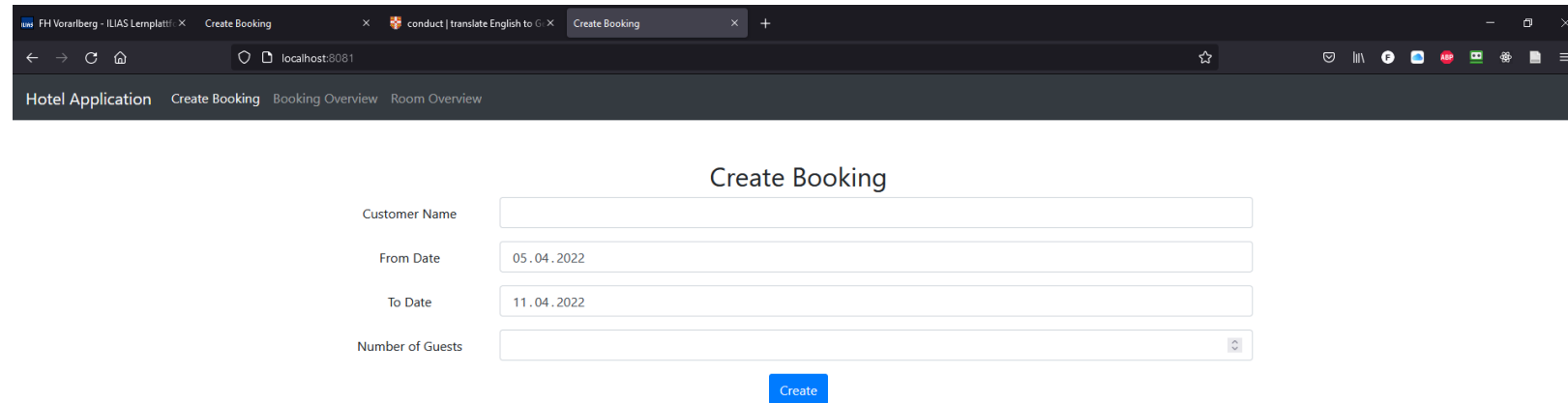
Diagram of the Project



Scenarios

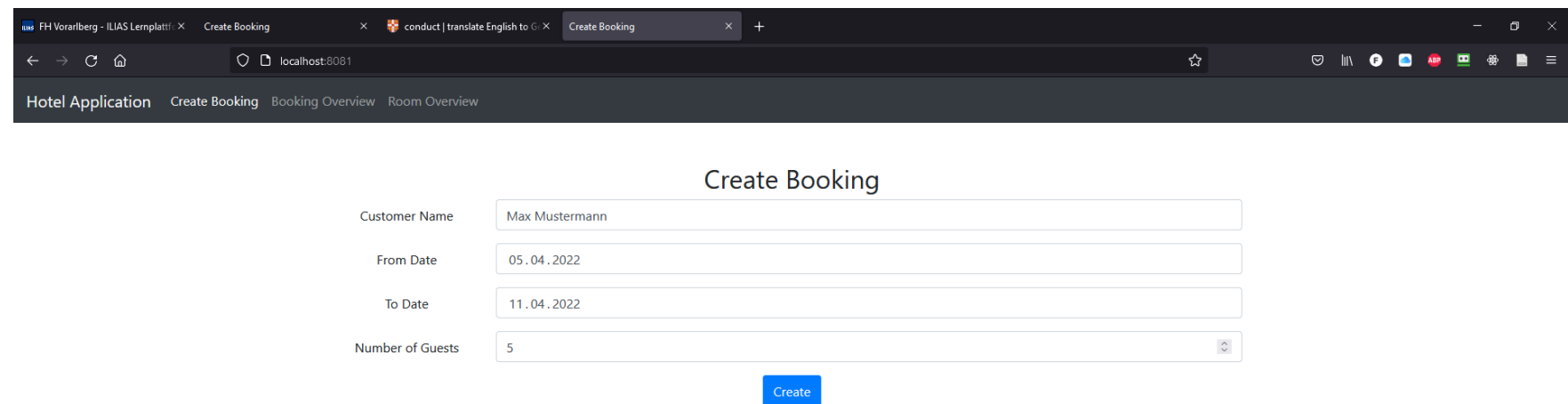
Create a Booking

1. open a browser on <http://localhost:8081>



The screenshot shows a web browser window with the address bar set to localhost:8081. The browser has several tabs open, including 'FH Vorarlberg - ILIAS Lernplatt...', 'Create Booking', and 'conduct | translate English to...'. The page title is 'Hotel Application' and the breadcrumb navigation shows 'Create Booking' > 'Booking Overview' > 'Room Overview'. The main heading is 'Create Booking'. Below it, there are four input fields: 'Customer Name' (empty), 'From Date' (05.04.2022), 'To Date' (11.04.2022), and 'Number of Guests' (empty). A blue 'Create' button is located at the bottom right of the form.

2. enter your data (customer name, from date, to date, number of guests)



The screenshot shows the same web browser window as before, but now the form fields are populated with data. The 'Customer Name' field contains 'Max Mustermann', the 'From Date' field contains '05.04.2022', the 'To Date' field contains '11.04.2022', and the 'Number of Guests' field contains '5'. The blue 'Create' button remains at the bottom right of the form.

3. press the “Create”-button

Hotel Application Create Booking Booking Overview Room Overview

Booking successfully created!

Create Booking

Customer Name

From Date

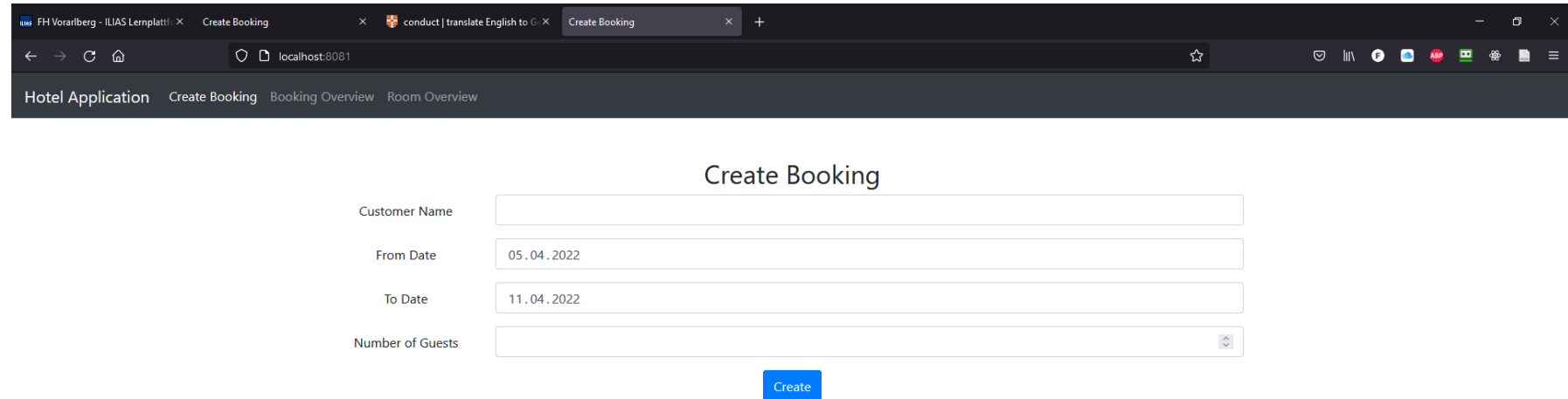
To Date

Number of Guests

Create

Show All Bookings

1. open a browser on <http://localhost:8081>

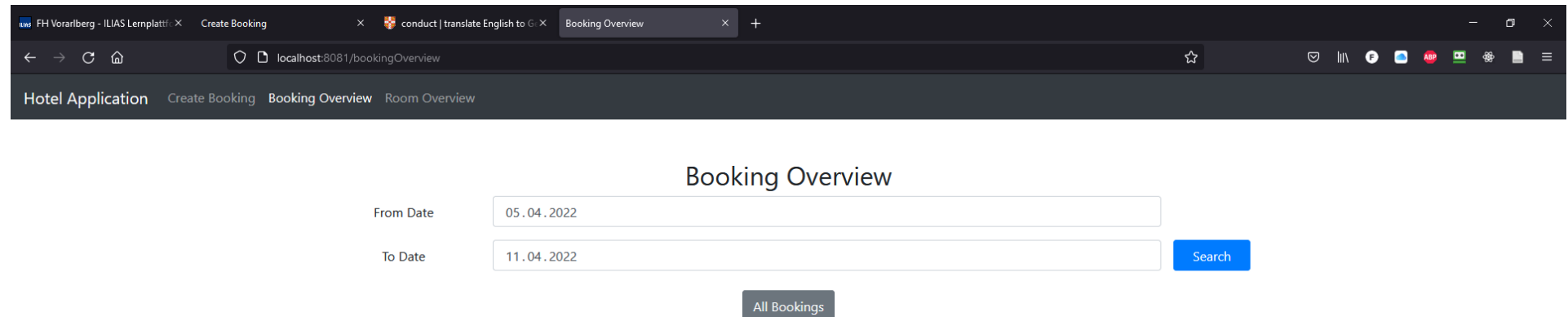


The screenshot shows a web browser window with the address bar set to `localhost:8081`. The browser's navigation bar includes links for 'Hotel Application', 'Create Booking' (which is the active page), 'Booking Overview', and 'Room Overview'. The main content area is titled 'Create Booking' and contains a form with the following fields:

- Customer Name:
- From Date:
- To Date:
- Number of Guests:

Below the form is a blue 'Create' button.

2. click on „Booking Overview“ in the Navigationbar



The screenshot shows the same web browser window, but the address bar now displays `localhost:8081/bookingOverview`. The navigation bar has updated, with 'Booking Overview' now being the active page. The main content area is titled 'Booking Overview' and contains a form with the following fields:

- From Date:
- To Date:

Below the form are two buttons: a blue 'Search' button and a grey 'All Bookings' button.

3. click on „All Bookings“ in the Navigationbar

Booking Overview

From Date: 05.04.2022

To Date: 11.04.2022

Search

All Bookings

Booking ID	Customer Name	From Date	To Date
ff7fd795-4d42-4b4b-b6b5-a7118105dc69	Max Mustermann	2022-04-05	2022-04-11

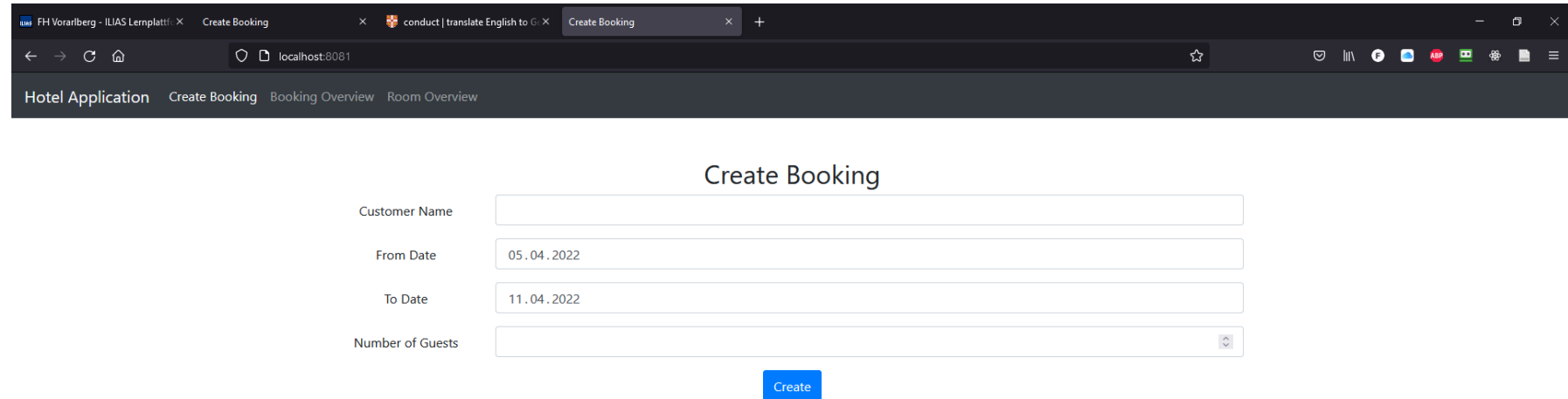
Cancel Booking

Booking ID:

Cancel

Show bookings within a specific period

1. open a browser on http://localhost:8081

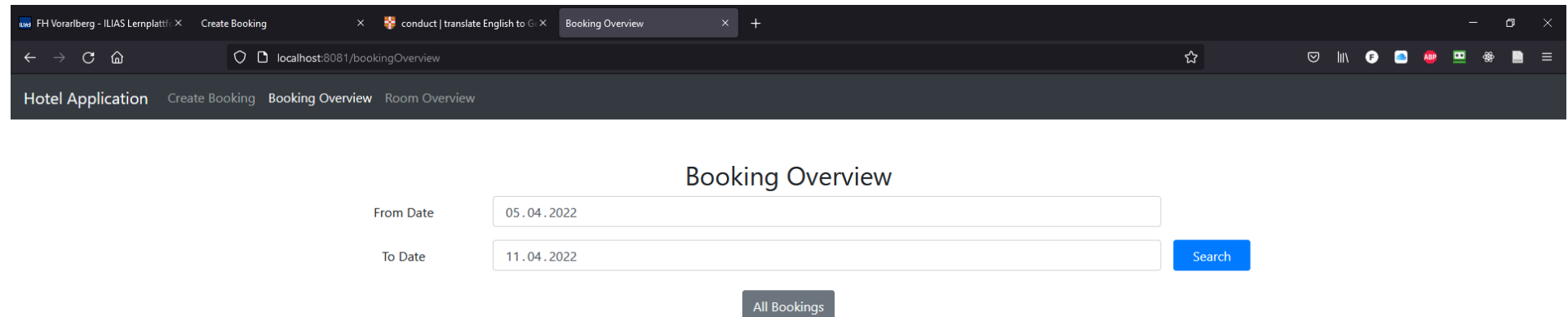


The screenshot shows a web browser window with the URL `localhost:8081`. The browser's address bar and tabs are visible. The page title is "Create Booking". The navigation bar at the top contains the following links: "Hotel Application", "Create Booking", "Booking Overview", and "Room Overview". The main content area is titled "Create Booking" and contains the following form fields:

- Customer Name:
- From Date:
- To Date:
- Number of Guests:

Below the form fields is a blue "Create" button.

2. click on „Booking Overview“ in the Navigationbar



The screenshot shows the same web browser window, but the URL is now `localhost:8081/bookingOverview`. The navigation bar at the top contains the following links: "Hotel Application", "Create Booking", "Booking Overview", and "Room Overview". The main content area is titled "Booking Overview" and contains the following form fields:

- From Date:
- To Date:

Below the form fields is a blue "Search" button. At the bottom of the page is a grey button labeled "All Bookings".

3. choose a fromDate and toDate

Team: Matthias Meier, Fabian Egartner

The screenshot shows the 'Booking Overview' page in a web browser. The browser's address bar shows 'localhost:8081/bookingOverview'. The page has a dark header with 'Hotel Application' and navigation links: 'Create Booking', 'Booking Overview' (active), and 'Room Overview'. The main content area is titled 'Booking Overview'. It features two date input fields: 'From Date' with the value '09.04.2022' and 'To Date' with the value '19.04.2022'. A blue 'Search' button is to the right of the 'To Date' field. A date picker calendar is open over the 'To Date' field, showing April 2022 with the 15th selected. Below the date inputs is a table of bookings. The first row is partially visible with the booking ID 'bb02830b-'. Below the table is a 'Cancel Booking' section with a text input for 'Booking ID' and a red 'Cancel' button. A button labeled 'All Bookings' is positioned above the table.

Booking ID	Customer Name	From Date	To Date
bb02830b-	Test	2022-04-09	2022-04-10

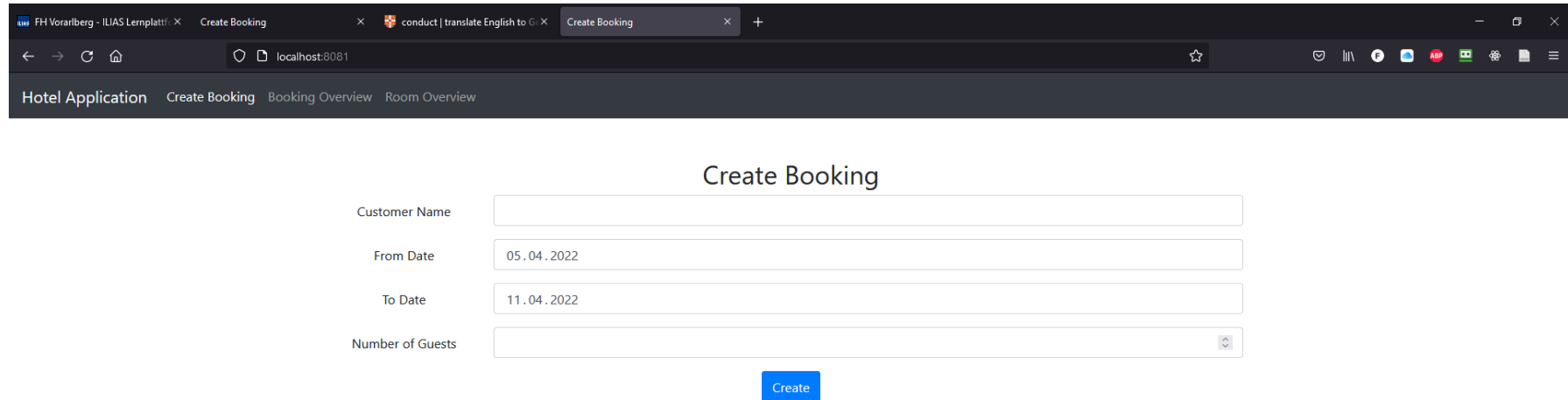
4. click on the “Search”-button

The screenshot shows the 'Booking Overview' page after the 'Search' button was clicked. The 'From Date' field now contains '05.04.2022' and the 'To Date' field contains '11.04.2022'. The table now displays two booking entries. The 'Cancel Booking' section remains at the bottom.

Booking ID	Customer Name	From Date	To Date
bb02830b-ad0c-4fe8-aa72-e2c83190e313	Test	2022-04-09	2022-04-10
10aa5bd7-4b6c-410d-aa67-6f595f7c5653	Test2	2022-04-12	2022-04-15

Cancel a booking

1. open a browser on <http://localhost:8081>

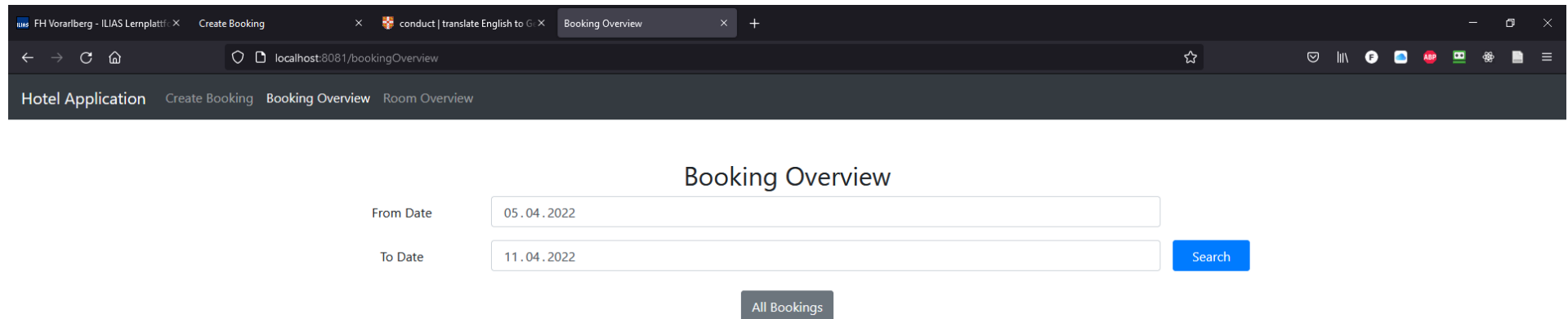


The screenshot shows a web browser window with the address bar set to `localhost:8081`. The browser's navigation bar includes links for 'Hotel Application', 'Create Booking', 'Booking Overview', and 'Room Overview'. The main content area is titled 'Create Booking' and contains a form with the following fields:

- Customer Name:
- From Date:
- To Date:
- Number of Guests:

Below the form is a blue 'Create' button.

2. click on „Booking Overview“ in the Navigationbar

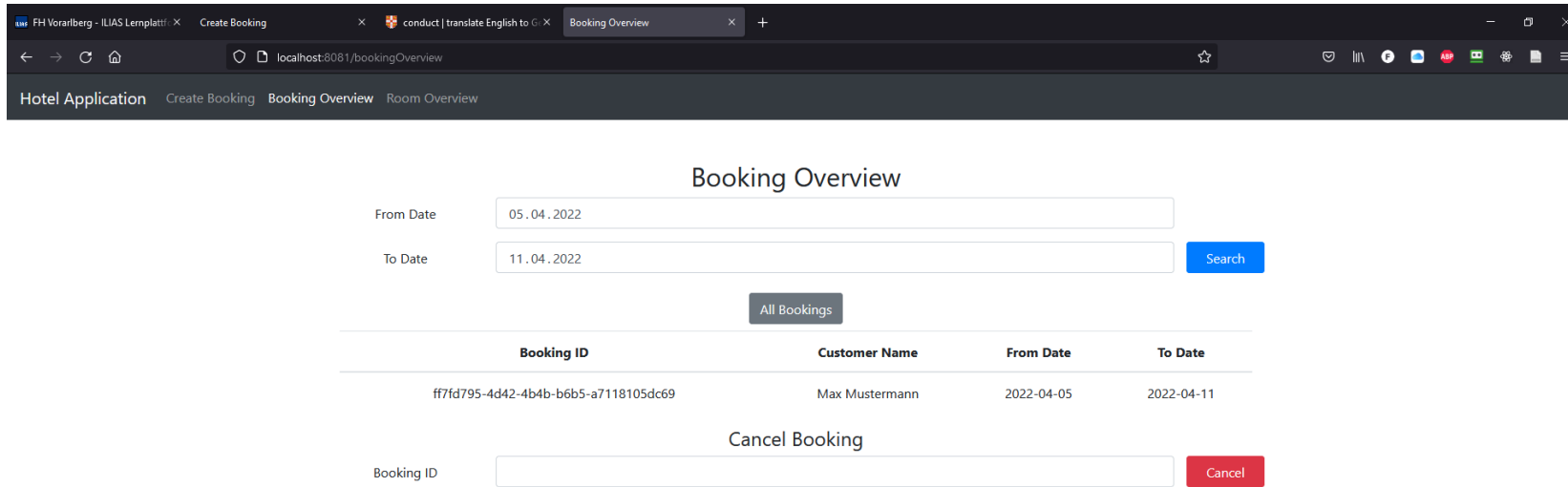


The screenshot shows the same web browser window, but the 'Booking Overview' link in the navigation bar is now active. The address bar shows `localhost:8081/bookingOverview`. The main content area is titled 'Booking Overview' and contains a form with the following fields:

- From Date:
- To Date:

Below the form is a blue 'Search' button. At the bottom center of the page is a grey button labeled 'All Bookings'.

3. click on the „All Bookings“-button in the Navigationbar

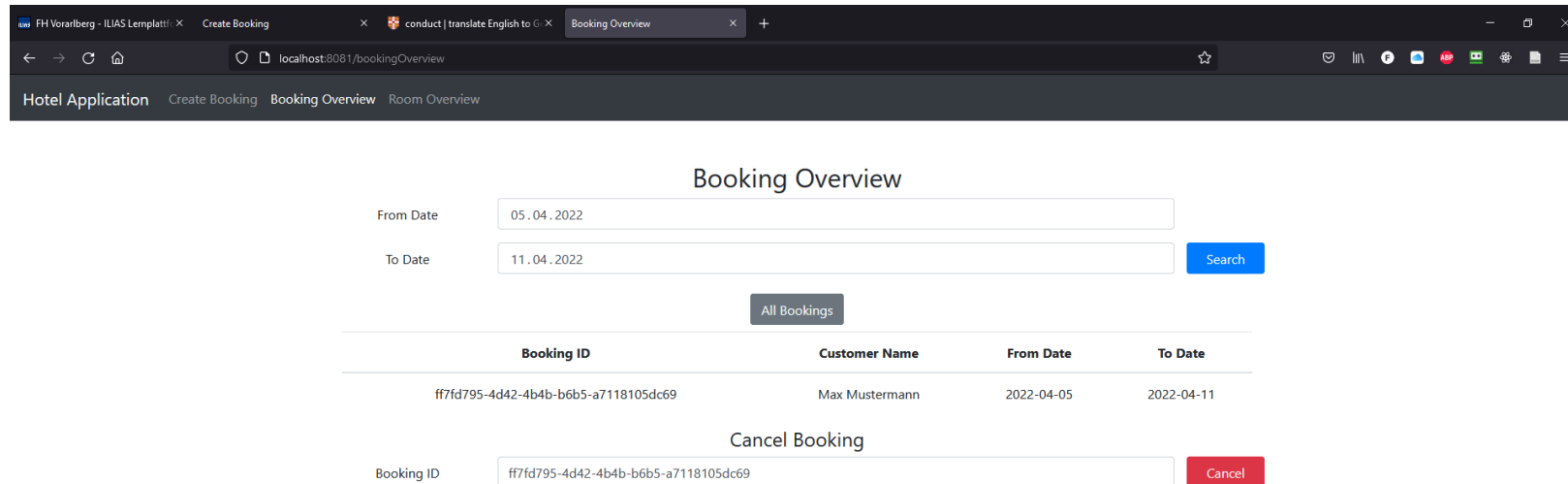


The screenshot shows a web browser window with the URL `localhost:8081/bookingOverview`. The navigation bar at the top includes links for "Hotel Application", "Create Booking", "Booking Overview" (which is the active page), and "Room Overview". The main content area is titled "Booking Overview" and contains two date input fields: "From Date" (05.04.2022) and "To Date" (11.04.2022), followed by a blue "Search" button. Below the search filters is a button labeled "All Bookings". Underneath this button is a table with the following data:

Booking ID	Customer Name	From Date	To Date
ff7fd795-4d42-4b4b-b6b5-a7118105dc69	Max Mustermann	2022-04-05	2022-04-11

Below the table is a section titled "Cancel Booking" with a text input field labeled "Booking ID" and a red "Cancel" button.

4. copy the Booking ID (UUID) you would like to delete and paste it into the Booking ID Textfield



This screenshot is identical to the previous one, but the "Booking ID" text field in the "Cancel Booking" section now contains the UUID `ff7fd795-4d42-4b4b-b6b5-a7118105dc69`, which was copied from the table above.

5. click on the “Cancel”-button

Booking successfully cancelled!

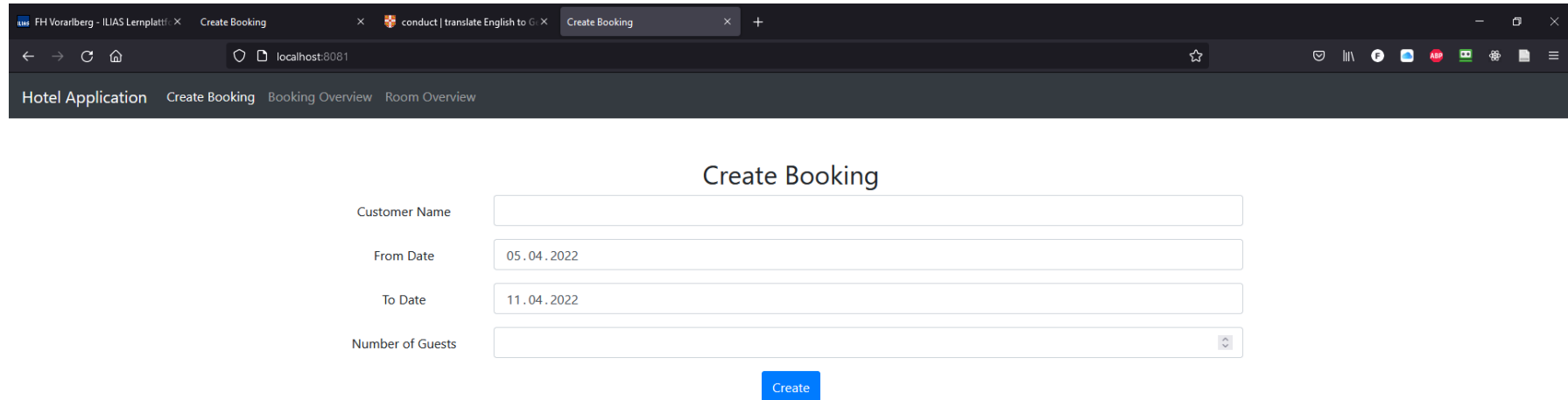
Booking Overview

From Date

To Date

Find free rooms

1. open a browser on <http://localhost:8081>



Hotel Application Create Booking Booking Overview Room Overview

Create Booking

Customer Name

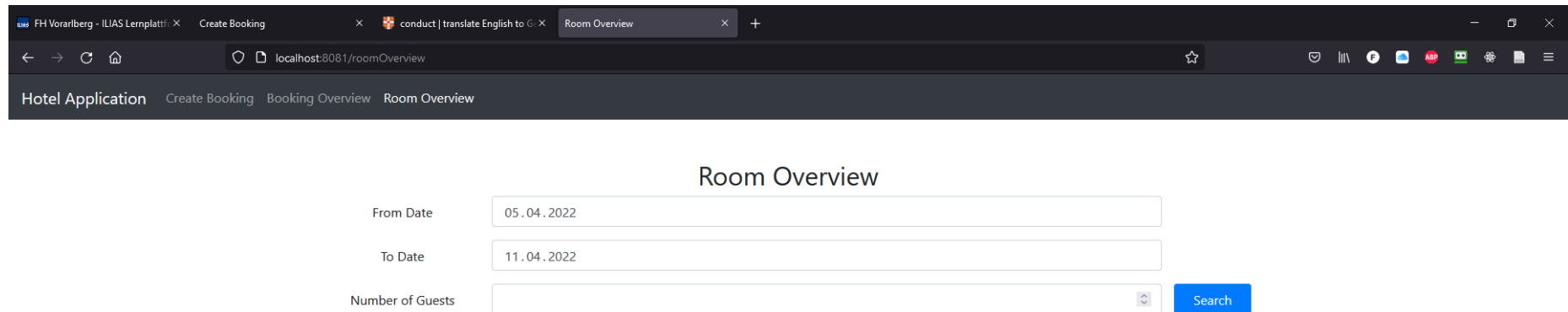
From Date

To Date

Number of Guests

Create

2. click on “Room Overview” in the Navigationbar



Hotel Application Create Booking Booking Overview Room Overview

Room Overview

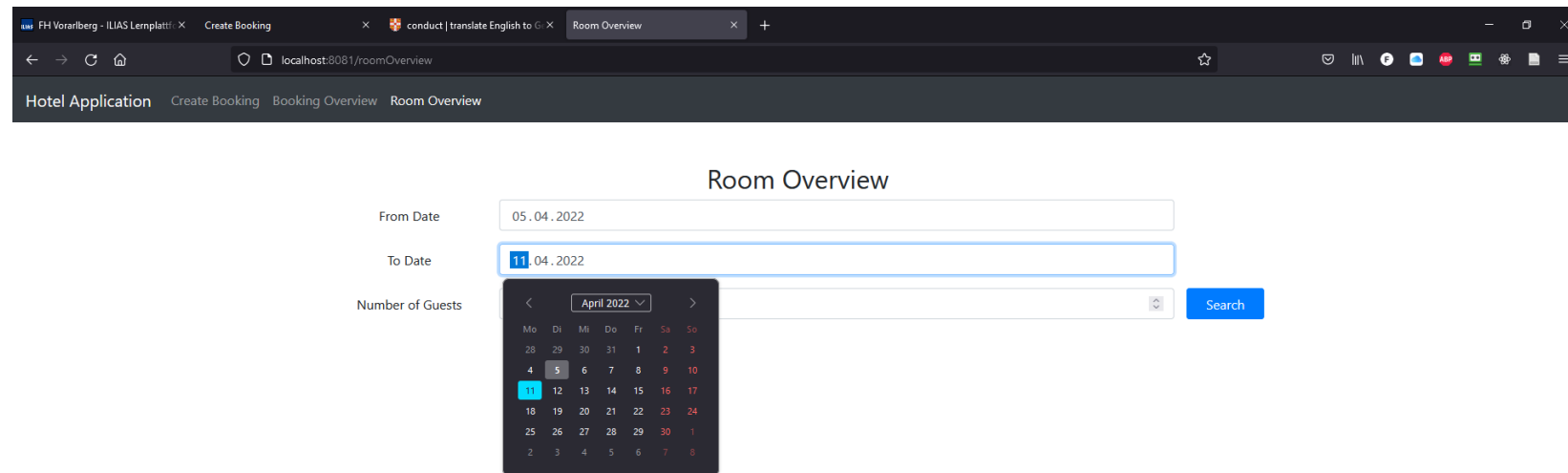
From Date

To Date

Number of Guests

Search

3. choose a From Date and To Date



The screenshot shows a web browser window with the URL `localhost:8081/roomOverview`. The page title is "Room Overview". Below the title, there are three input fields: "From Date" with the value "05.04.2022", "To Date" with the value "11.04.2022", and "Number of Guests" which is currently empty. A calendar dropdown is open for the "To Date" field, showing the month of April 2022. The calendar highlights the 11th of April. A blue "Search" button is located to the right of the input fields.

Room Overview

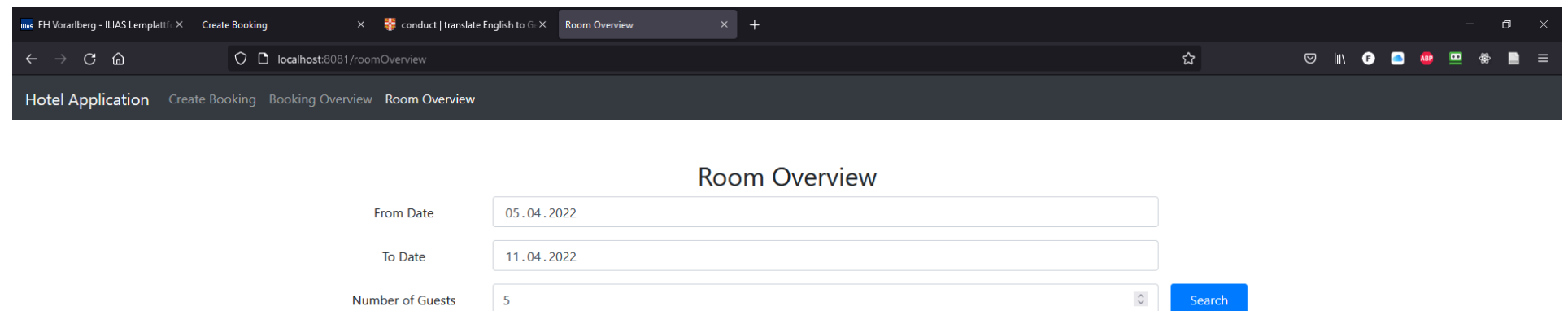
From Date: 05.04.2022

To Date: 11.04.2022

Number of Guests:

Search

4. specify the number of Guests



The screenshot shows the same "Room Overview" form as before, but now the "Number of Guests" field contains the value "5". The "From Date" and "To Date" fields remain unchanged. The "Search" button is still present.

Room Overview

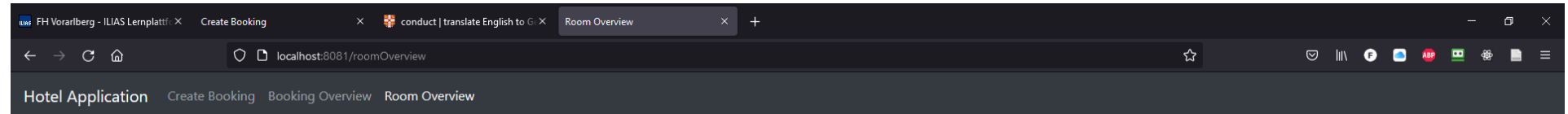
From Date: 05.04.2022

To Date: 11.04.2022

Number of Guests: 5

Search

5. click the “Search”-button



Room Overview

From Date	<input type="text" value="05.04.2022"/>
To Date	<input type="text" value="11.04.2022"/>
Number of Guests	<input type="text" value=""/> <input type="button" value="Search"/>

Room Number
100
101
102
103
104



Test Cases

Rooms that have already been reserved for a certain period (for a booking) are not listed in the Room Overview

Suppose we create a booking for this specific period (06.04.-12.04.) and this number of guests (five):

[Hotel Application](#) [Create Booking](#) [Booking Overview](#) [Room Overview](#)

Create Booking



Customer Name	<input type="text" value="Peter Tester"/>
From Date	<input type="text" value="06.04.2022"/> 
To Date	<input type="text" value="12.04.2022"/> 
Number of Guests	<input type="text" value="5"/>

Create

The application now selects five rooms from the available rooms list. In this case, five single bed rooms would be chosen (100, 101, 102, 103, 104). Because of that, it is important that these rooms are not listed in the Room Overview when we are searching for the same period (06.04.-12.04.):

[Hotel Application](#) [Create Booking](#) [Booking Overview](#) [Room Overview](#)

Room Overview

From Date	<input type="text" value="06.04.2022"/> 
To Date	<input type="text" value="12.04.2022"/> 
Number of Guests	<input type="text" value="5"/>

Search

Team: Matthias Meier, Fabian Egartner

And indeed, these rooms are not display, but only the next free rooms (starting at room number 105):

Room Number
105
106
107
108
200

Team: Matthias Meier, Fabian Egartner

Rooms are released again when a booking is cancelled

Suppose we cancel the booking that we just created in the step above:

[Hotel Application](#) [Create Booking](#) [Booking Overview](#) [Room Overview](#)

Booking Overview

From Date

06.04.2022

To Date

12.04.2022

Search

All Bookings

Booking ID	Customer Name	From Date	To Date
44b4cbdc-4a0c-45c0-b5f4-842aa1c1fbe2	Peter Tester	2022-04-06	2022-04-12

Cancel Booking

Booking ID

44b4cbdc-4a0c-45c0-b5f4-842aa1c1fbe2

Cancel

First of all, it is important that the booking is no longer in the Booking Overview:

[Hotel Application](#) [Create Booking](#) [Booking Overview](#) [Room Overview](#)

Booking Overview

From Date

06.04.2022

To Date

12.04.2022

Search

All Bookings

Booking ID	Customer Name	From Date	To Date
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Cancel Booking

Booking ID

Cancel

In addition, the rooms that were first reserved for this booking (100, 101, 102, 103, 104) must now be displayed again in the Room Overview:

[Hotel Application](#) [Create Booking](#) [Booking Overview](#) [Room Overview](#)

Room Overview

From Date

06.04.2022

To Date

12.04.2022

Number of Guests

5

Search

And indeed, the rooms are now available again:

Room Number
100
101
102
103
104