



# HOTEL BOOKING SYSTEM

Systems Analysis and Testing 24/25

## Abstract

For our software project, we are designing a hotel booking system that users can use to book a stay and events at a four-star hotel. The system will consist of a user interface, where users can book from the following options:

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# Hotel Booking

## Summary

For our software project, we are designing a hotel booking system that users can use to book a stay and events at a four-star hotel. The system will consist of a user interface, where users can book from the following options:

- Room
- Conference
- Wedding
- Restaurant reservation
- Spa session
- Gym session

In addition, users can select a type of room and view availability. Users can also view availability for booking weddings, conferences, spa sessions, gym sessions, and making restaurant reservations. When making a restaurant reservation, users have the additional option of viewing the restaurant menu.

Once users select their booking and dates, they can proceed to making a payment, upon where they will receive confirmation of their booking.

Users who wish to only book a conference, spa session, gym session, or make a restaurant reservation can do so without having to book a stay at the hotel. There are day passes available at the gym for non-guests.

The system will also consist of a database for storing each of the following information about the hotel:

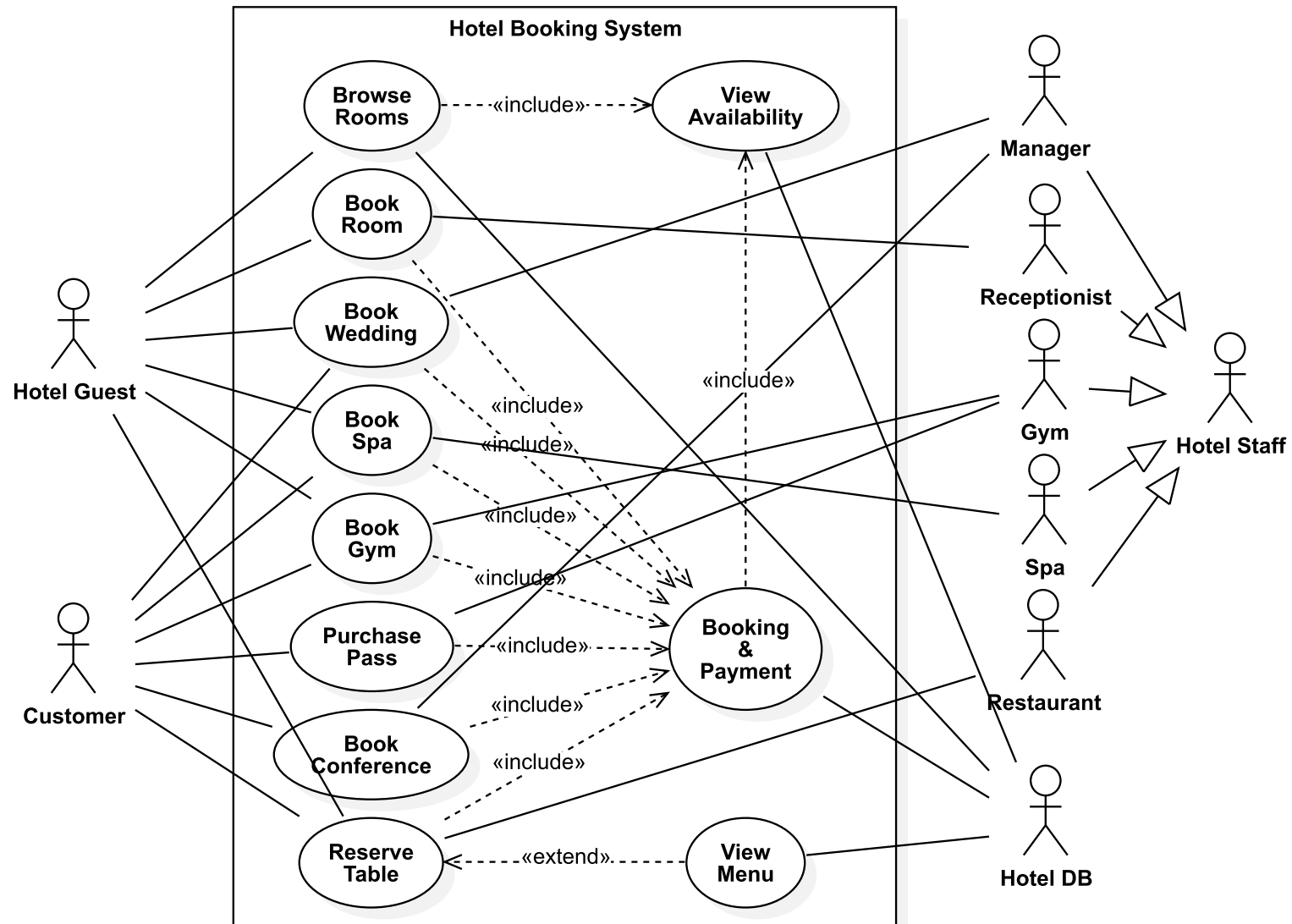
- Number of rooms available
- Number of bookings
- Guest payments

## User Stories

<b>Story Identifier:</b>	STK010
<b>Story Name:</b>	Booking & Payment
<b>Description:</b>	As a hotel guest, I want to make a payment, so that I can confirm my booking.
<b>Confirmation:</b>	With what payment methods can I make a payment? Is the payment method I use secure? How will I receive confirmation of my booking?
<b>Story Identifier:</b>	STK020
<b>Story Name:</b>	Browse Rooms
<b>Description:</b>	As a hotel guest, I want to browse rooms, so that I know which type of room I would like to book.
<b>Confirmation:</b>	How will I view the rooms available? What type of rooms can I view?
<b>Story Identifier:</b>	STK030
<b>Story Name:</b>	Book Room
<b>Description:</b>	As a hotel guest, I want to be able to book a room online, so that I can stay at the hotel.
<b>Confirmation:</b>	How will I be able to book a room? Can I choose the number of people booking the room? ☑
<b>Story Identifier:</b>	STK040
<b>Story Name:</b>	Reserve Table
<b>Description:</b>	As a hotel guest/customer, I want to reserve a table, so that I can eat at the restaurant.
<b>Confirmation:</b>	How can I reserve a table at the restaurant? Will I receive confirmation of my reservation? Can I amend or cancel my reservation?
<b>Story Identifier:</b>	STK050
<b>Story Name:</b>	Book Gym
<b>Description:</b>	As a hotel guest, I want to book a PT session, so that I can learn how to use the gym.
<b>Confirmation:</b>	How can I book a PT session at the gym? Can I choose a preference of Personal Trainers available?
<b>Story Identifier:</b>	STK060
<b>Story Name:</b>	Purchase Pass
<b>Description:</b>	As a customer, I want to purchase a pass, so that I can go to the gym.
<b>Confirmation:</b>	How can I make a payment for the day pass?

<b>Story Identifier:</b>	STK070
<b>Story Name:</b>	<a href="#">Book Spa</a>
<b>Description:</b>	As a hotel guest, I want to book a spa treatment, so that I can get a massage.
<b>Confirmation:</b>	Does the hotel guest get a discount? Does the hotel guest get to choose the gender of the masseuse?
<b>Story Identifier:</b>	STK071
<b>Story Name:</b>	<a href="#">Book Spa</a>
<b>Description:</b>	As a customer, I want to book a spa, so that I can relax.
<b>Confirmation:</b>	Does the customer get to choose the gender of the masseuse?
<b>Story Identifier:</b>	STK080
<b>Story Name:</b>	<a href="#">Book Wedding</a>
<b>Description:</b>	As a hotel guest or a customer, I want to book a wedding, so that I host a marriage ceremony for my family member/friend.
<b>Confirmation:</b>	Does the customer need to specify how many guests they are bringing? How far in advance must the booking be placed?
<b>Story Identifier:</b>	STK090
<b>Story Name:</b>	<a href="#">Book Conference</a>
<b>Description:</b>	As a customer, I want to book a conference room, so that I can host a meeting or an event.
<b>Confirmation:</b>	Does the customer need to specify how many guests they are bringing? Does the customer need to specify catering? Does the customer need to specify the type of the event?
<b>Story Identifier:</b>	STK100
<b>Story Name:</b>	<a href="#">View Availability</a>
<b>Description:</b>	As a hotel guest, I want to view availability, so that I know what days suit me to book.
<b>Confirmation:</b>	Does the system show exactly how many places are available? Does the system show accurate dates and times?
<b>Story Identifier:</b>	STK110
<b>Story Name:</b>	<a href="#">View Menu</a>
<b>Description:</b>	As a hotel guest, I want to see a menu, so that I can decide if I want to dine at the restaurant.
<b>Confirmation:</b>	Is the menu in the customers language? Does the menu have prices?
<b>Story Identifier:</b>	STK111
<b>Story Name:</b>	<a href="#">View Menu</a>
<b>Description:</b>	As a hotel guest, I want to see a menu, so that I can meet my dietary requirements and/or allergies.
<b>Confirmation:</b>	Does the menu show dietary requirements? Does the menu show allergies contained within each item?

## Use Case Diagram



## Scenario Specifications

<b>Use case name:</b> Booking & Payment	<b>UniqueID:</b> UC001
<b>Area:</b> Accommodation, Gym, Spa, Restaurant, Wedding, Conference	
<b>Actor(s):</b> Hotel Guest, Customer, Hotel Database	
<b>Description:</b> Booking a type of experience at the hotel followed by making a payment for the selected booking.	
<b>Triggering Event:</b> Selecting an option to book and selecting book.	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Click book	Booking
2. Select available date(s)	Date and Time
3. Enter personal details	Customer
4. Proceed to payment	Payment
5. Choose payment method	Card Payment
6. Enter payment details	Card Payment
7. Click pay	Payment
8. Receive confirmation of booking	Confirmation
9. Receive a receipt for booking	Receipt
<b>Preconditions:</b> Available dates for the type of booking being made Having a valid payment method Having an email address or phone number	
<b>Postconditions:</b> Receiving confirmation of booking via email and/or phone Receiving a receipt of payment via email	
<b>Assumptions:</b> Users can select the type of booking and would have a valid payment method along with an email address.	
<b>Requirements met:</b> The user can make and pay for a booking	
<b>Outstanding issues:</b> Users should be able to select the type of booking, make a payment, and receive confirmation of their booking via email along with a receipt of their payment.	
<b>Priority:</b> 1	
<b>Risk:</b> High	



Use case name: Browse Rooms	UniqueID: UC002
<b>Area:</b> Accommodation	
<b>Actor(s):</b> Hotel Guest, Hotel Database	
<b>Description:</b> Browsing the types of rooms available at the hotel and viewing their availability and prices	
<b>Triggering Event:</b> The user selecting accommodation and proceeding to view the rooms	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select accommodation on the UI	Hotel
2. View the types of rooms at the hotel	Room
3. Select a type of room	Room
4. View the price of the room	Room
5. View the available dates for the type of room selected	Date and Time
<b>Preconditions:</b> The user being able to access the UI The user being able to select the accommodation tab on the UI	
<b>Postconditions:</b> Seeing the types of rooms that are available and their prices Seeing the dates available for the type of room selected	
<b>Assumptions:</b> The user can use the UI and browse rooms by selecting accommodation	
<b>Requirements met:</b> The user can browse the rooms	
<b>Outstanding issues:</b> Users should be able to access the UI with ease and browse rooms by clicking on accommodation. Users should be able to view the type of rooms and their corresponding prices Users should be able to view the availability for the type of room selected	
<b>Priority:</b> 2	
<b>Risk:</b> High	

Use case name: Book Room	UniqueID: UC003
<b>Area:</b> Accommodation	
<b>Actor(s):</b> Hotel Guest, Hotel Database	
<b>Description:</b> Booking a type of room selected along with the selected date(s)	
<b>Triggering Event:</b> The user browsing rooms and selecting a type of room followed by the date(s)	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select room	Room
2. Enter number of guests	Booking
3. Proceed to booking and payment	Booking
<b>Preconditions:</b> The user browsing the rooms available and selecting the dates for the room	
<b>Postconditions:</b> The user receives confirmation of the room booking along with a receipt of their payment	
<b>Assumptions:</b> The user has browsed the rooms available at the hotel and viewed the available dates	
<b>Requirements met:</b> The user can book a room	
<b>Outstanding issues:</b> Users should be able to book the room that they selected on the correct dates that they selected for the booking Users should be able to view a confirmation of their booking and receipt of payment	
<b>Priority:</b> 3	
<b>Risk:</b> Medium	

Use case name: Reserve Table	UniqueID: UC004
<b>Area:</b> Restaurant	
<b>Actor(s):</b> Hotel Guest, Customer, Restaurant Staff	
<b>Description:</b> Reserving a table in the restaurant at a particular date and time	
<b>Triggering Event:</b> The user selects to reserve a table	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select reserve table option	RoomBooking
2. Enter number of guests	RoomBooking
3. Select manual table selection	RoomBooking
4. Select an available table	Table, RoomBooking
5. Proceed to booking	Booking
<b>Preconditions:</b> The user is a hotel guest or customer.	
<b>Postconditions:</b> The HotelDB will contain the reservation. The user receives a confirmation of their booking.	
<b>Assumptions:</b> The user is making a booking for 6 or less people	
<b>Requirements met:</b> The user can reserve a table at the restaurant.	
<b>Outstanding issues:</b> User should be able to have a table automatically selected for them. When a user chooses to manually select a table, an overhead view of the restaurant layout should be shown. The user should be charged a card authorisation.	
<b>Priority:</b> 4	
<b>Risk:</b> Medium	

Use case name: Book Gym	UniqueID: UC005
<b>Area:</b> Gym	
<b>Actor(s):</b> Hotel Guest, Customer, Gym Staff, Hotel Database	
<b>Description:</b> Booking a personal training session at the gym	
<b>Triggering Event:</b> The user selects book PT session on the UI of the hotel booking system	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select gym on the UI	Gym
2. View the types of gym sessions offered by the gym at the hotel	GymSession
3. Select book gym session	GymSession, GymBooking
4. Choose the duration of the session	Date, Time
5. Proceed to booking and payment	Booking, Payment, Confirmation, Receipt
<b>Preconditions:</b> Selecting Gym on the UI Having a valid payment method	
<b>Postconditions:</b> Receiving a booking confirmation via email Receiving a receipt of payment via email	
<b>Assumptions:</b> The user selects gym on the UI to book a gym session	
<b>Requirements met:</b> The user can book a session at the gym.	
<b>Outstanding issues:</b> Users should be able to view the details of the personal training session and choose the duration of it	
<b>Priority:</b> 5	
<b>Risk:</b> Medium	

Use case name: Purchase Pass	UniqueID: UC006
<b>Area:</b> Gym	
<b>Actor(s):</b> Customer, Hotel database, hotel staff	
<b>Description:</b> Booking a pass for use of the gym followed by making a payment	
<b>Triggering Event:</b> Selecting the option to purchase the pass	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Selecting Purchase pass in the gym section	Booking
2. Proceed to pay for the pass	Booking
<b>Preconditions:</b> The user is a customer of the hotel	
<b>Postconditions:</b> The HotelDB will contain the pass ID The user will receive a confirmation for the pass	
<b>Assumptions:</b> The user wants to use the hotel gym	
<b>Requirements met:</b> The user can purchase a pass	
<b>Outstanding issues:</b> The user should be able to view the purchase confirmation on their receipt	
<b>Priority:</b> 6	
<b>Risk:</b> High	

Use case name: Book Spa	UniqueID: UC007
<b>Area:</b> Spa	
<b>Actor(s):</b> Hotel Guest, Customer, Spa	
<b>Description:</b> Booking the spa on a particular date	
<b>Triggering Event:</b> The user selects to book a spa treatment	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select book spa option	SpaBooking
2. Enter number of guests	SpaBooking
3. Select treatment package	SpaBooking
4. Proceed to booking	SpaBooking, Payment, Card Payment, Confirmation, Receipt
<b>Preconditions:</b> The user is a hotel guest or customer.	
<b>Postconditions:</b> The HotelDB will contain the reservation. The user receives a confirmation of their booking.	
<b>Assumptions:</b> The user is making a booking for 1 or 2 people	
<b>Requirements met:</b> The user can make a booking at the spa.	
<b>Outstanding issues:</b> User should be presented with a discount if they book for 2 people.	
<b>Priority:</b> 7	
<b>Risk:</b> Medium	

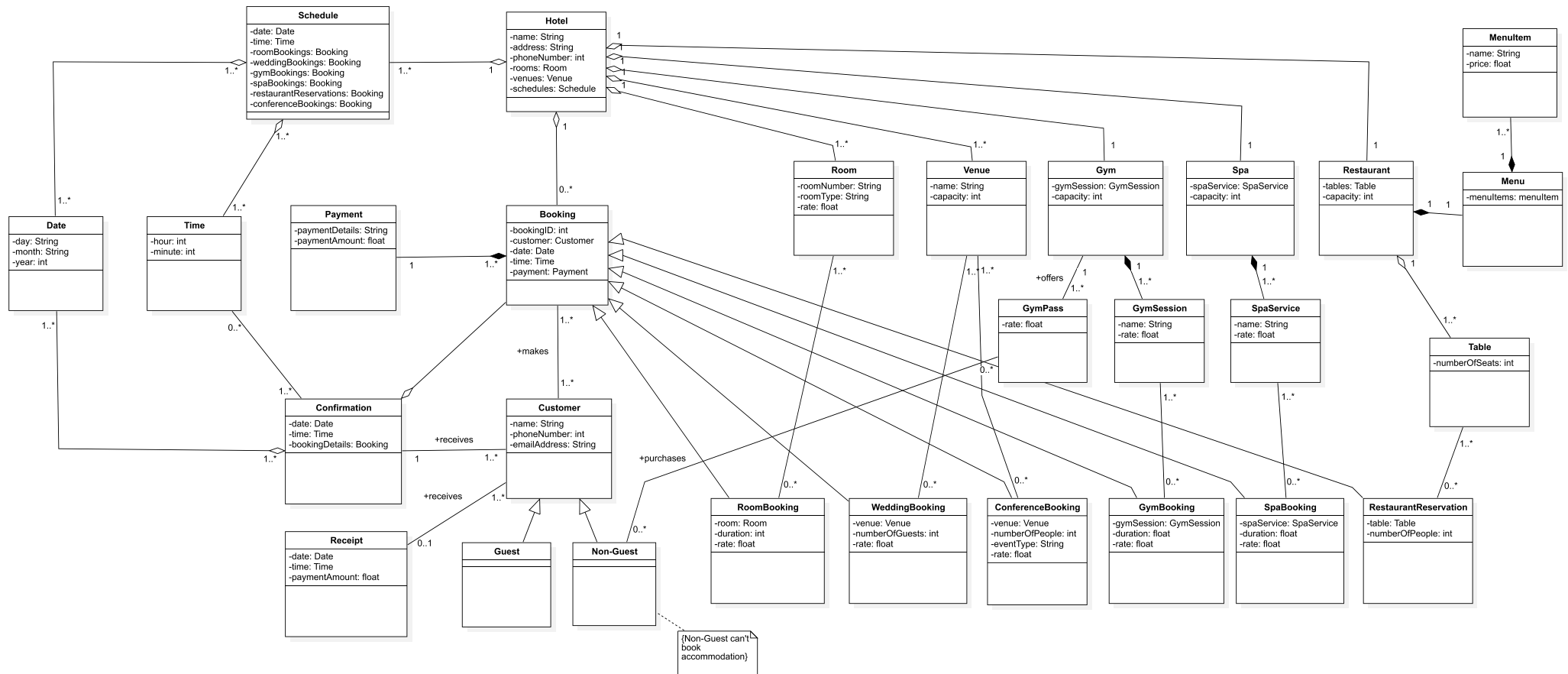
Use case name: Book Wedding	UniqueID: UC008
<b>Area:</b> Hotel	
<b>Actor(s):</b> Hotel Guest, Customer, Manager	
<b>Description:</b> Booking a wedding at the hotel on a particular date	
<b>Triggering Event:</b> The user selects to book a wedding	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1. Select book wedding option	WeddingBooking
2. Enter number of guests	WeddingBooking
3. Select civil or religious ceremony	WeddingBooking
4. Enter groom and bride details	Hotel Guest/Customer, WeddingBooking
5. Select indoor or outdoor ceremony	WeddingBooking
6. Select after party or dinner	WeddingBooking
7. Proceed to booking	WeddingBooking
<b>Preconditions:</b> The user is a hotel guest or customer.	
<b>Postconditions:</b> The HotelDB will contain the reservation. The user receives a confirmation of their booking.	
<b>Assumptions:</b> The user is making a booking for 50 to 150 people. The user is not already married.	
<b>Requirements met:</b> The user can make a booking for their wedding.	
<b>Outstanding issues:</b> The user should be contacted by the manager to arrange any other special details.	
<b>Priority:</b> 5	
<b>Risk:</b> Medium	

Use case name: Book Conference		UniqueID: UC009
Area: Conference		
Actor(s): Customer, Manager, Hotel DB		
Description: Booking out a conference for meeting at the hotel then followed by making a payment for the booked conference		
Triggering Event: Selecting an option to book a conference		
Trigger type: <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal		
Steps Performed (Main Path)		Information for Steps
1. Select conference room		ConferenceBooking
2. Proceed to booking and payment		Payment, Card Payment, Confirmation
Preconditions: The user browsing the conference rooms available and selecting the date		
Postconditions: The user receives confirmation of the conference booking along with a receipt of the payment		
Assumptions: The user has browsed the conference room availability and viewed the available dates		
Requirements met: The user can book a conference		
<b>Outstanding issues:</b> Users should be able to book the conference that they selected on the correct dates that they selected for the booking Users should be able to view a confirmation of their booking and receipt of payment		
Priority: 9		
Risk: Medium		

Use case name: View Availability		UniqueID: UC010
Area: Accommodation, Gym, Conference, Spa, Restaurant		
Actor(s): Hotel Guest, Customer, Hotel Database		
Description: Viewing the availability of a potential service prior to booking		
Triggering Event: The user wanting to book a particular experience at the hotel and to see if the dates they want to book the experience on are available		
Trigger type: <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal		
Steps Performed (Main Path)		Information for Steps
1. Choose the date(s) for the type of service selected on the calendar		Service, Date and Time
Preconditions: A type of service being selected on the interface. The user has selected the type of service prior to viewing the availability		
Postconditions: Available dates for the service are selected		
Assumptions: The user selects the type of service prior to viewing the availability		
Requirements met: The user can view the availability of a service		
Outstanding issues: Users should be able to click on date(s) on the calendar and see if they are available prior to proceeding to booking and payment		
Priority: 7		
Risk: High		

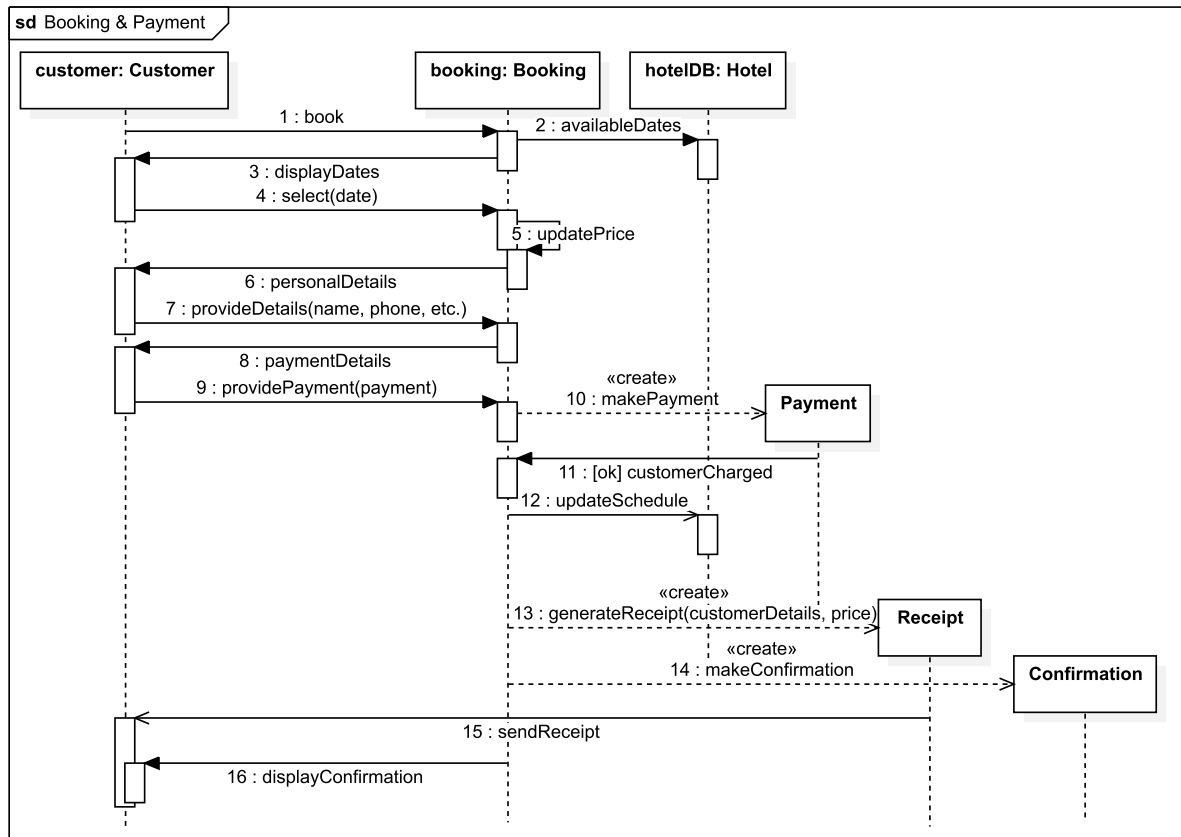
Use case name: View Menu	UniqueID: UC011
<b>Area:</b> Restaurant	
<b>Actor(s):</b> Hotel Guest, Customer, HotelDB	
<b>Description:</b> Viewing the contents of the menu	
<b>Triggering Event:</b> Selecting the option to view the menu	
<b>Trigger type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal	
<b>Steps Performed (Main Path)</b>	<b>Information for Steps</b>
1.Selecting to view the menu	Menu, HotelDB
2.Selecting the category of the menu	HotelDB
<b>Preconditions:</b> The user is a hotel guest or customer.	
<b>Postconditions:</b> The HotelDB will contain the menu	
<b>Assumptions:</b> The menu has a list of menu items	
<b>Requirements met:</b> The user can view the menu.	
<b>Outstanding issues:</b> The menu is displayed. Are the dietary needs displayed?	
<b>Priority:</b> 11	
<b>Risk:</b> High	

# Class Diagram



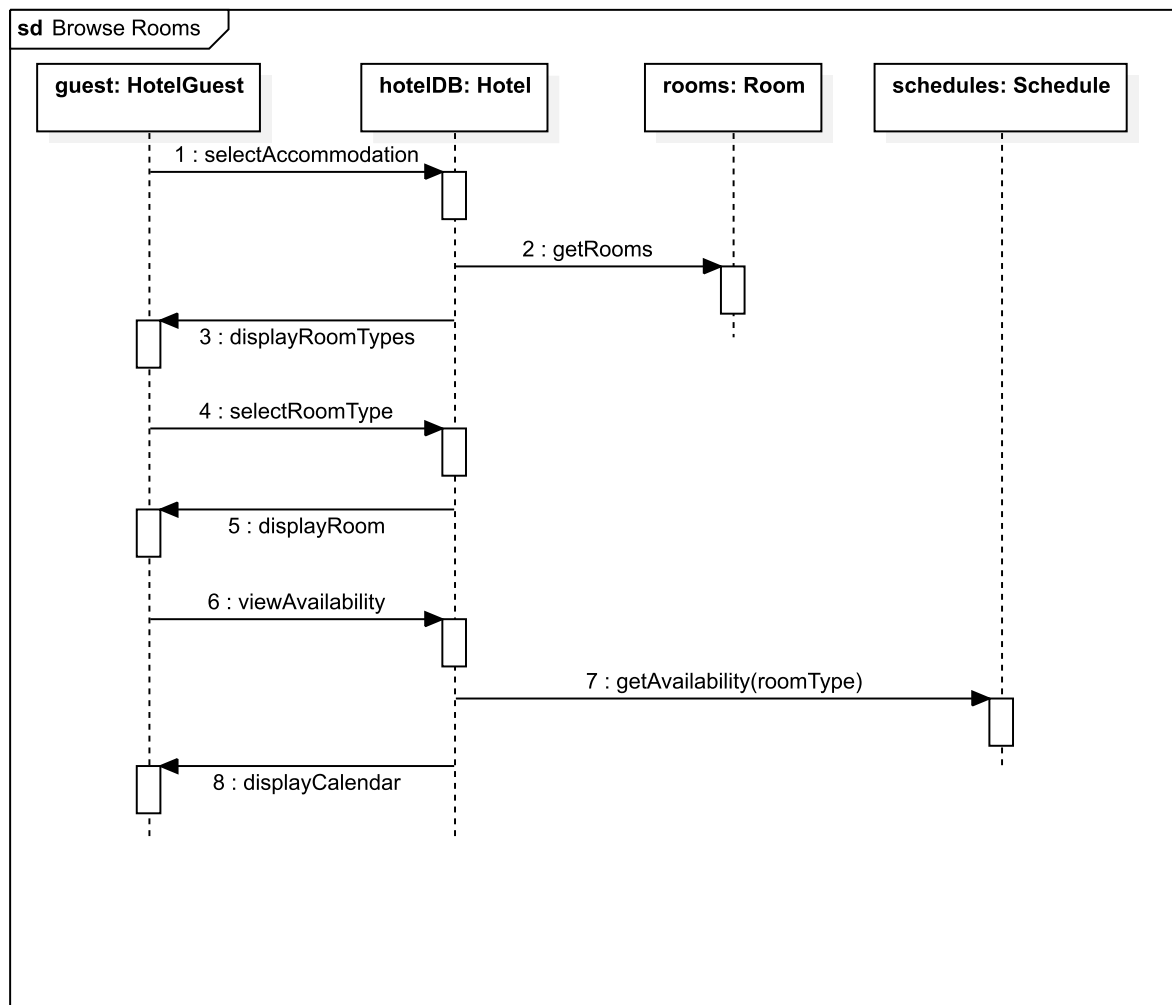
## Sequence Diagrams

### Booking & Payment

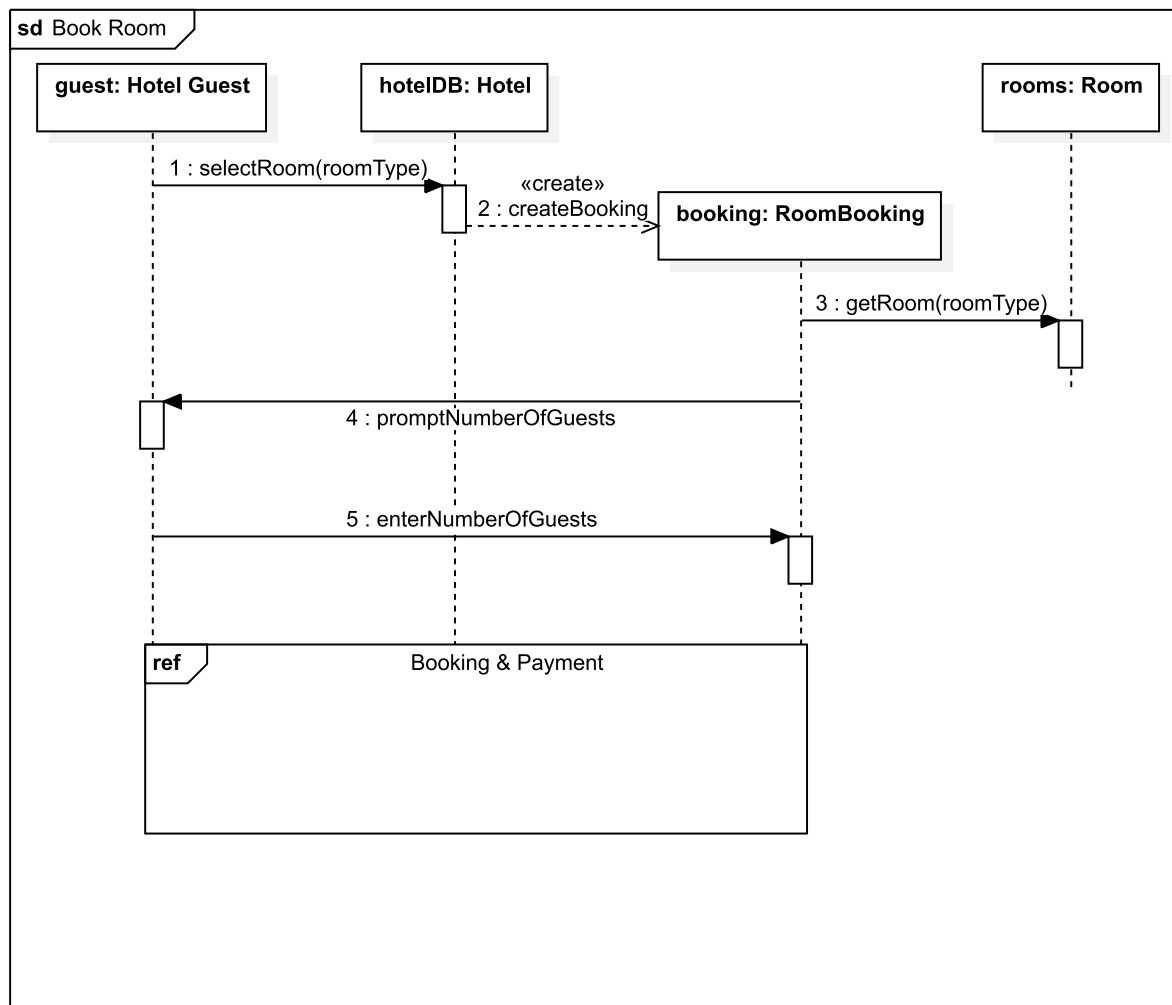




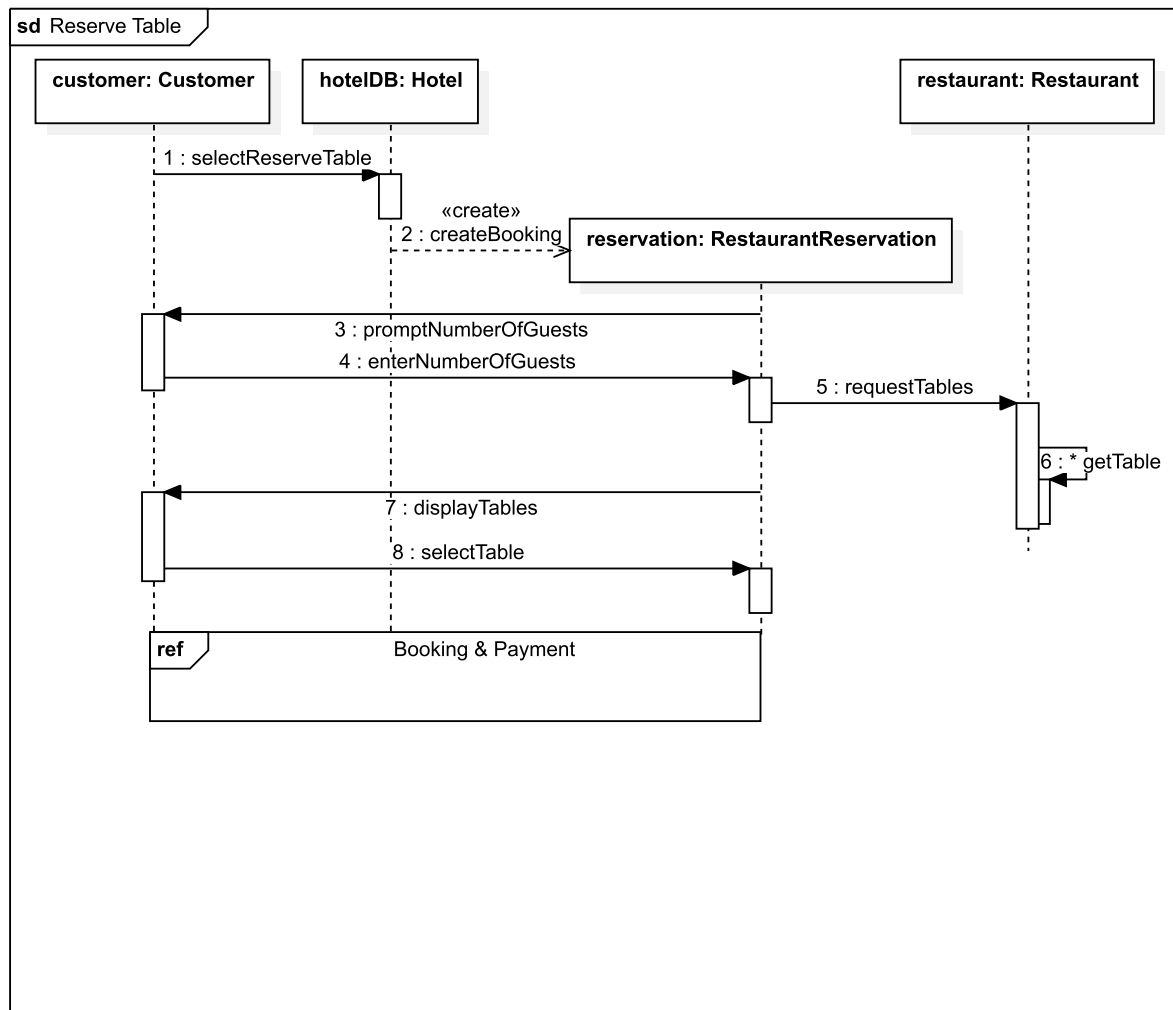
## Browse Rooms



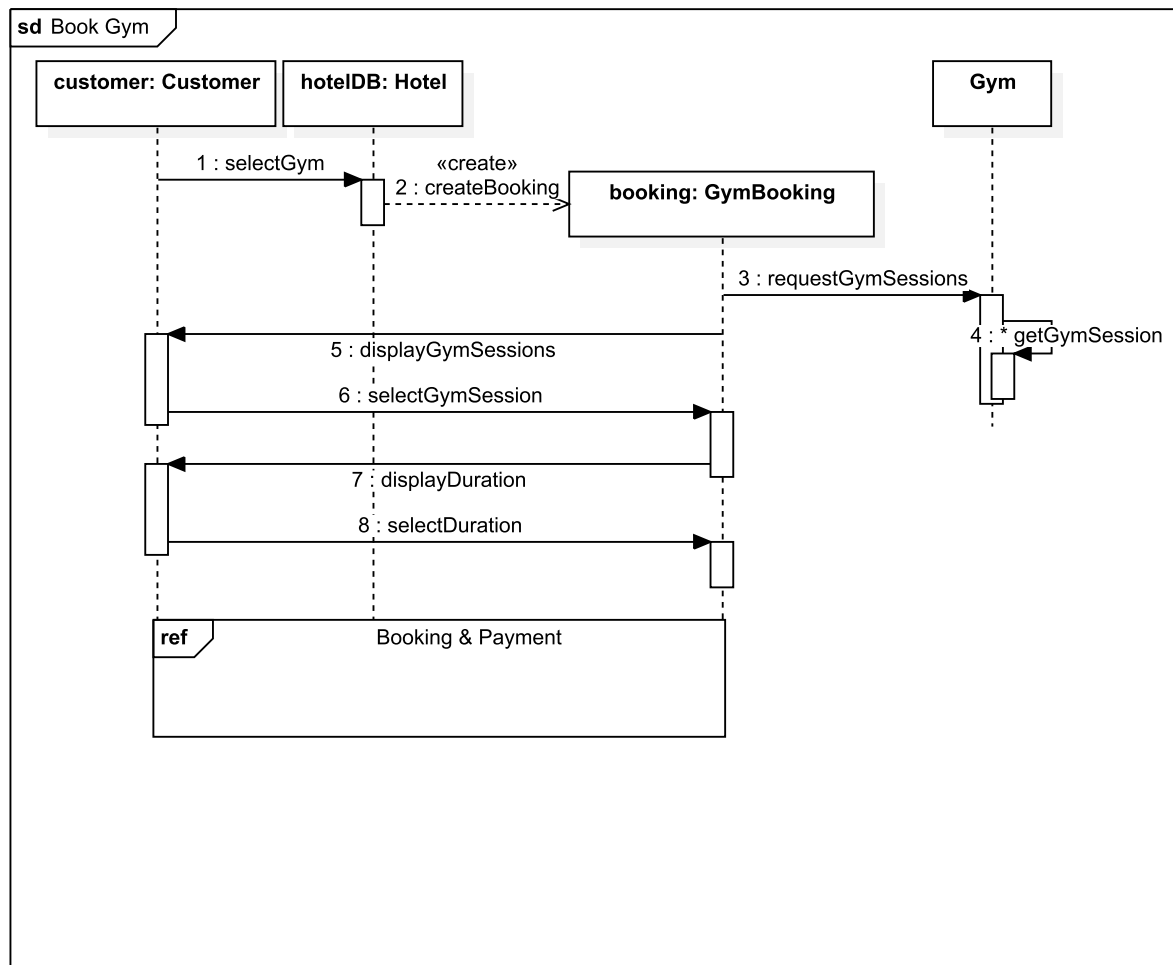
## Book Room



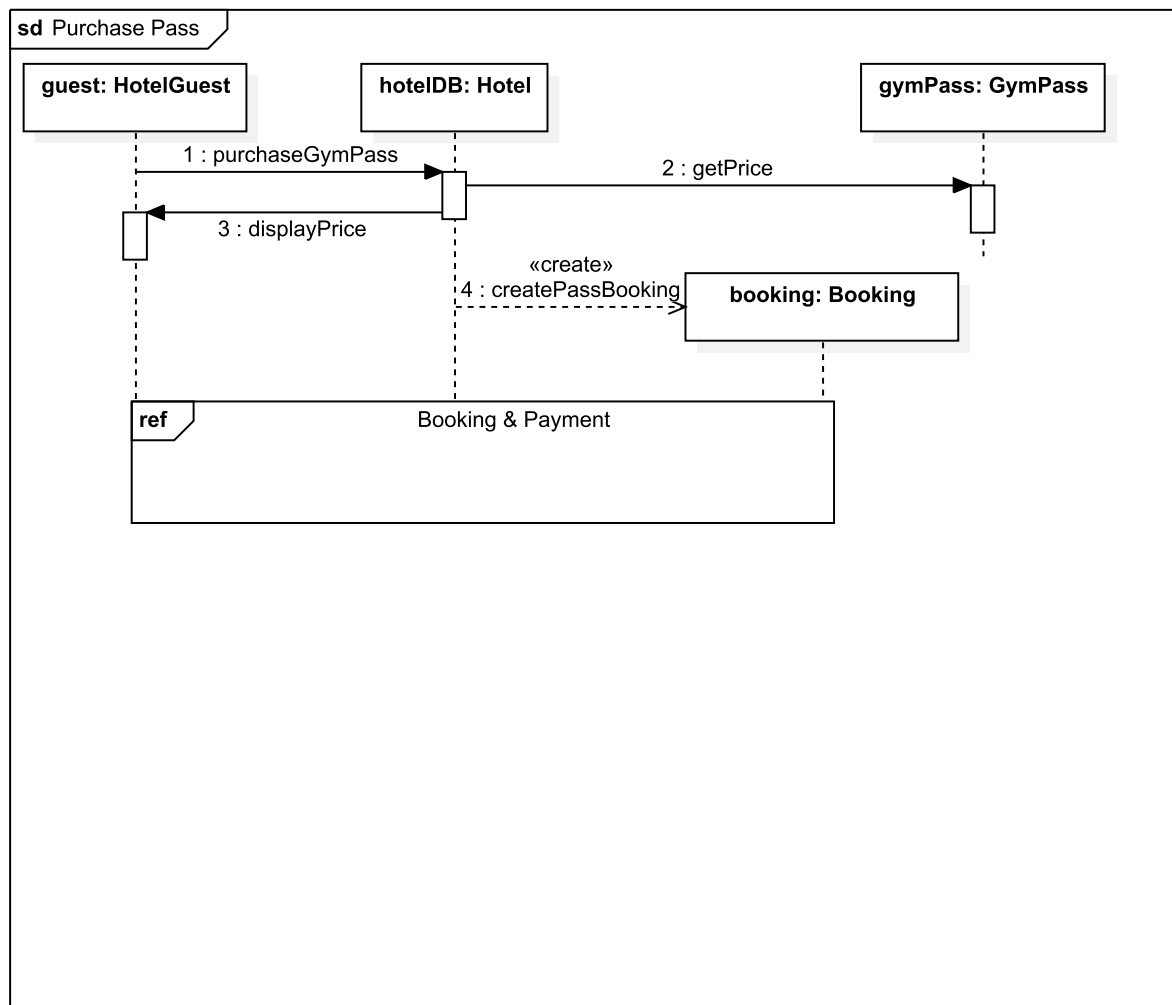
## Reserve Table



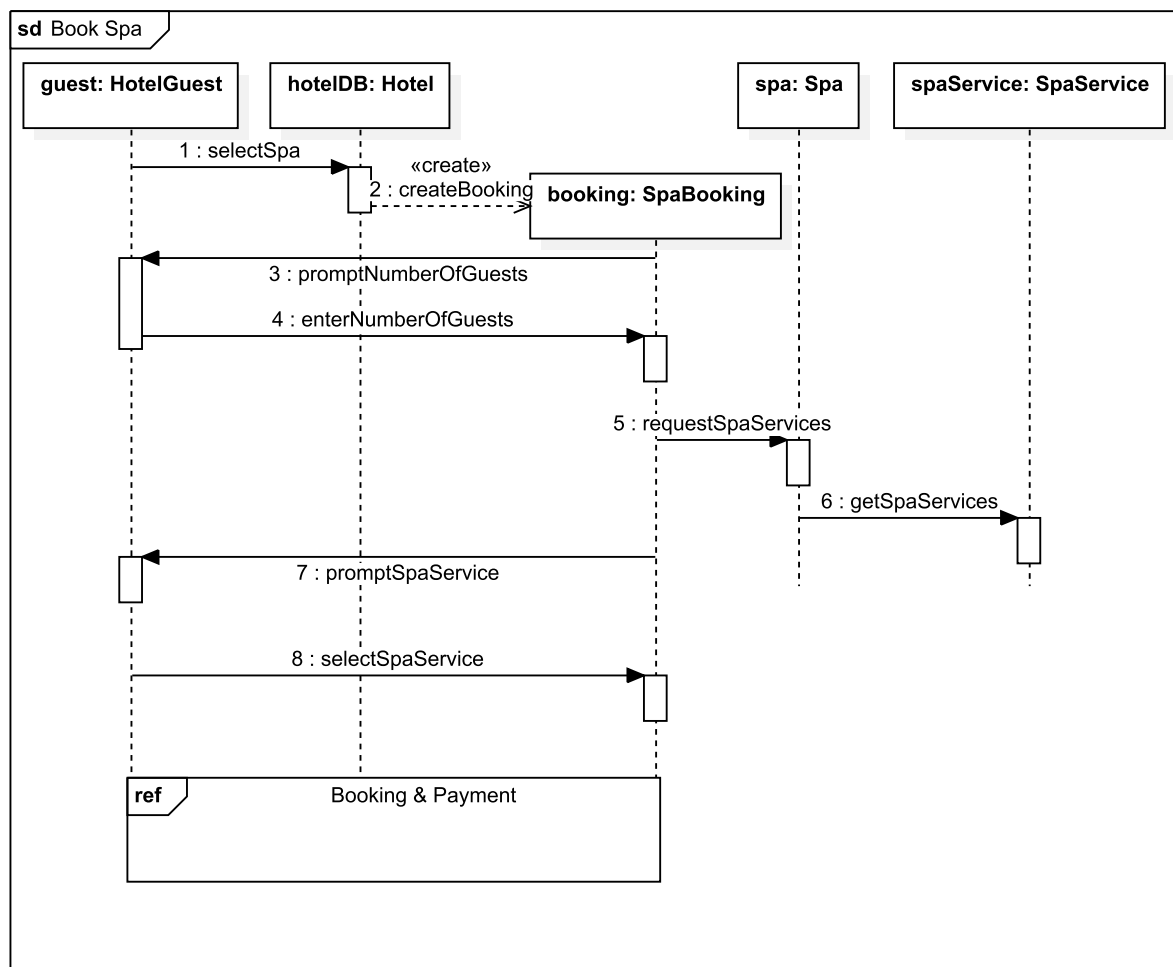
## Book Gym



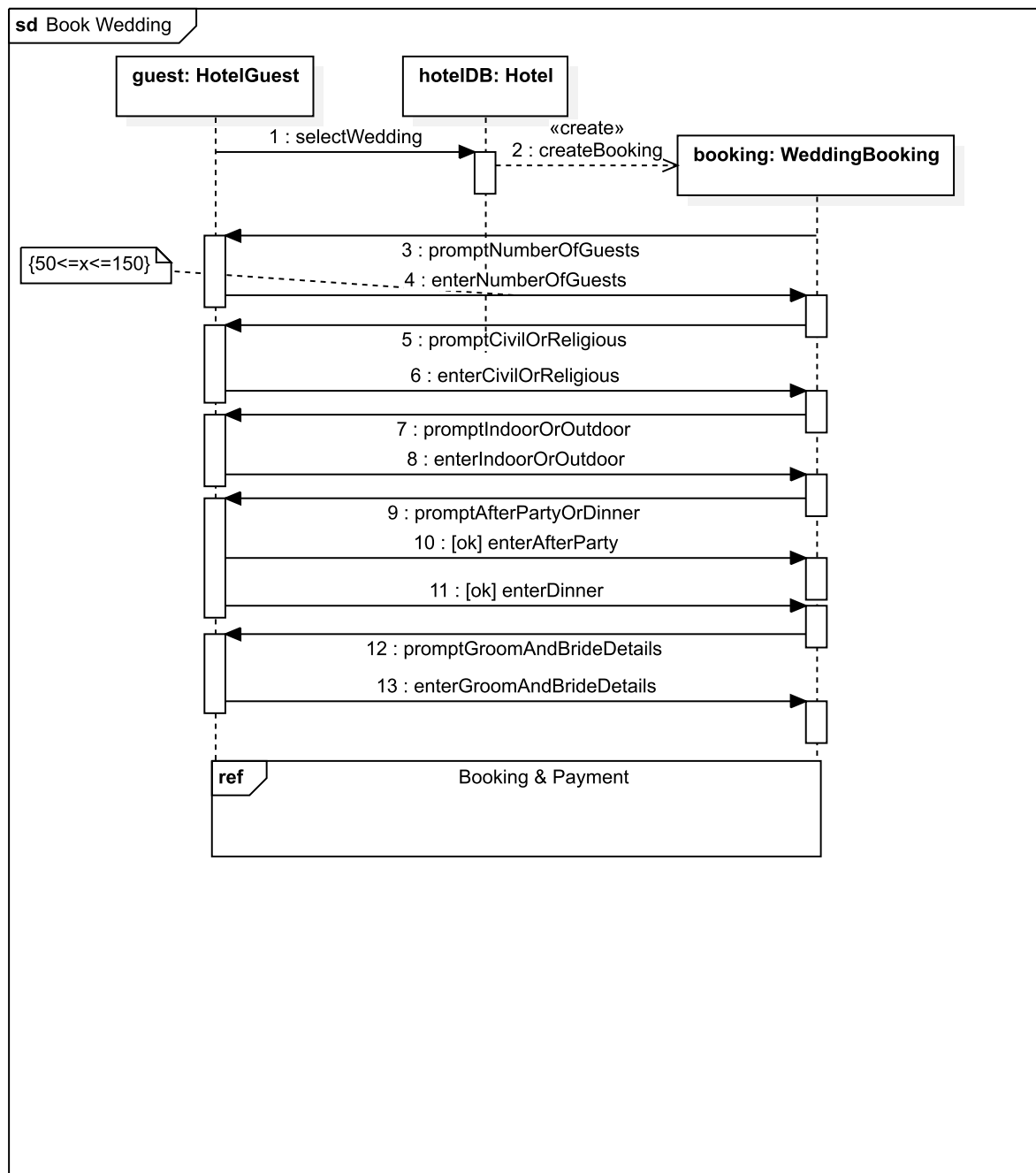
## Purchase Pass



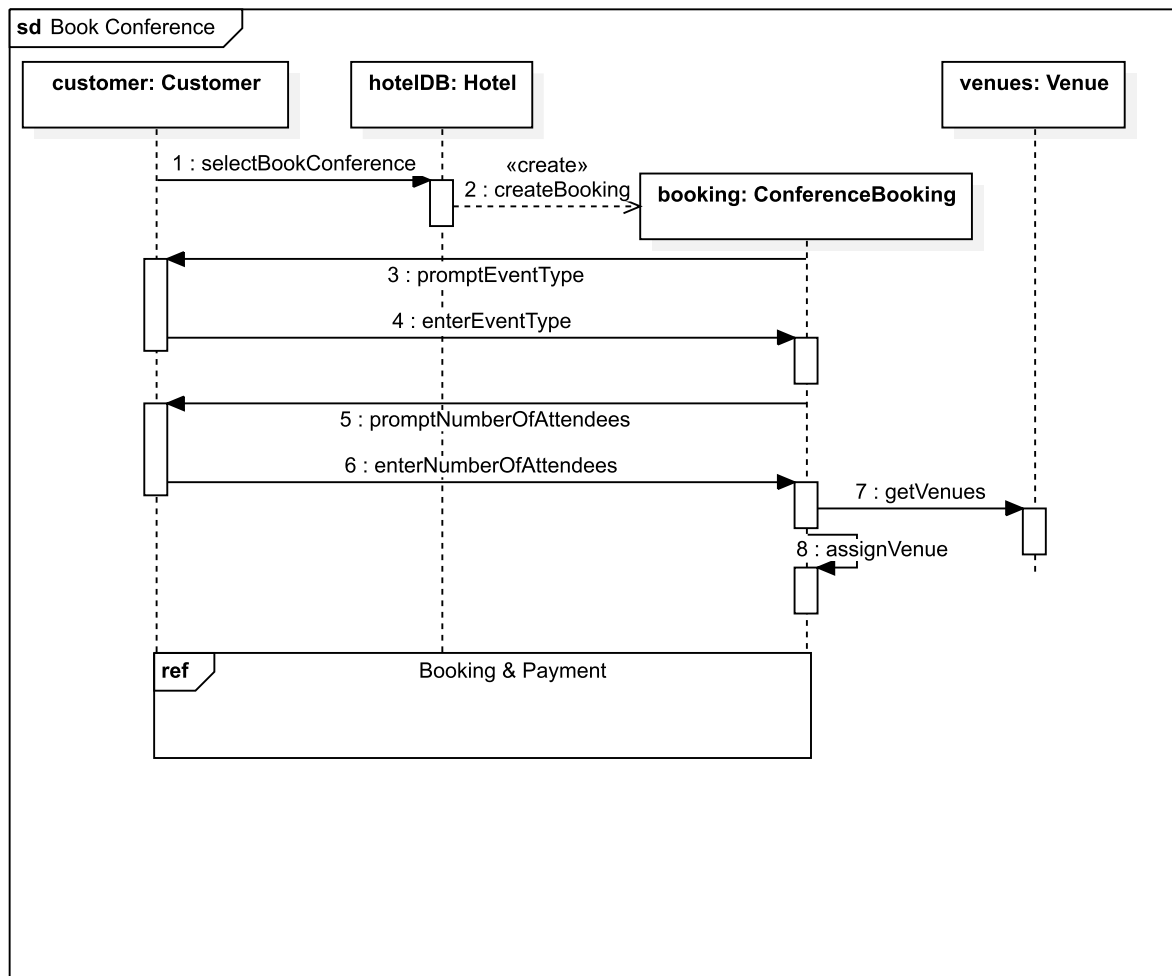
## Book Spa



## Book Wedding

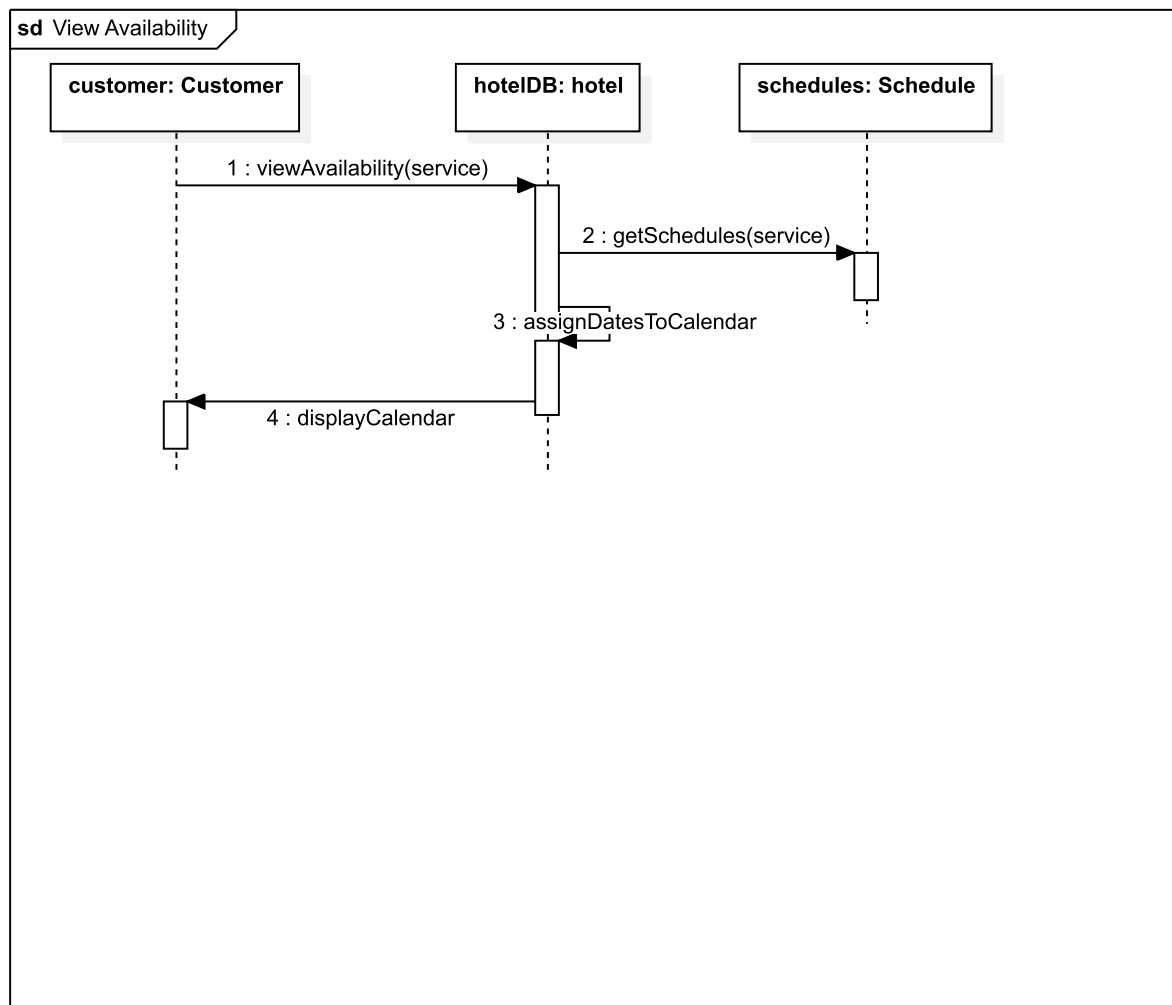


## Book Conference

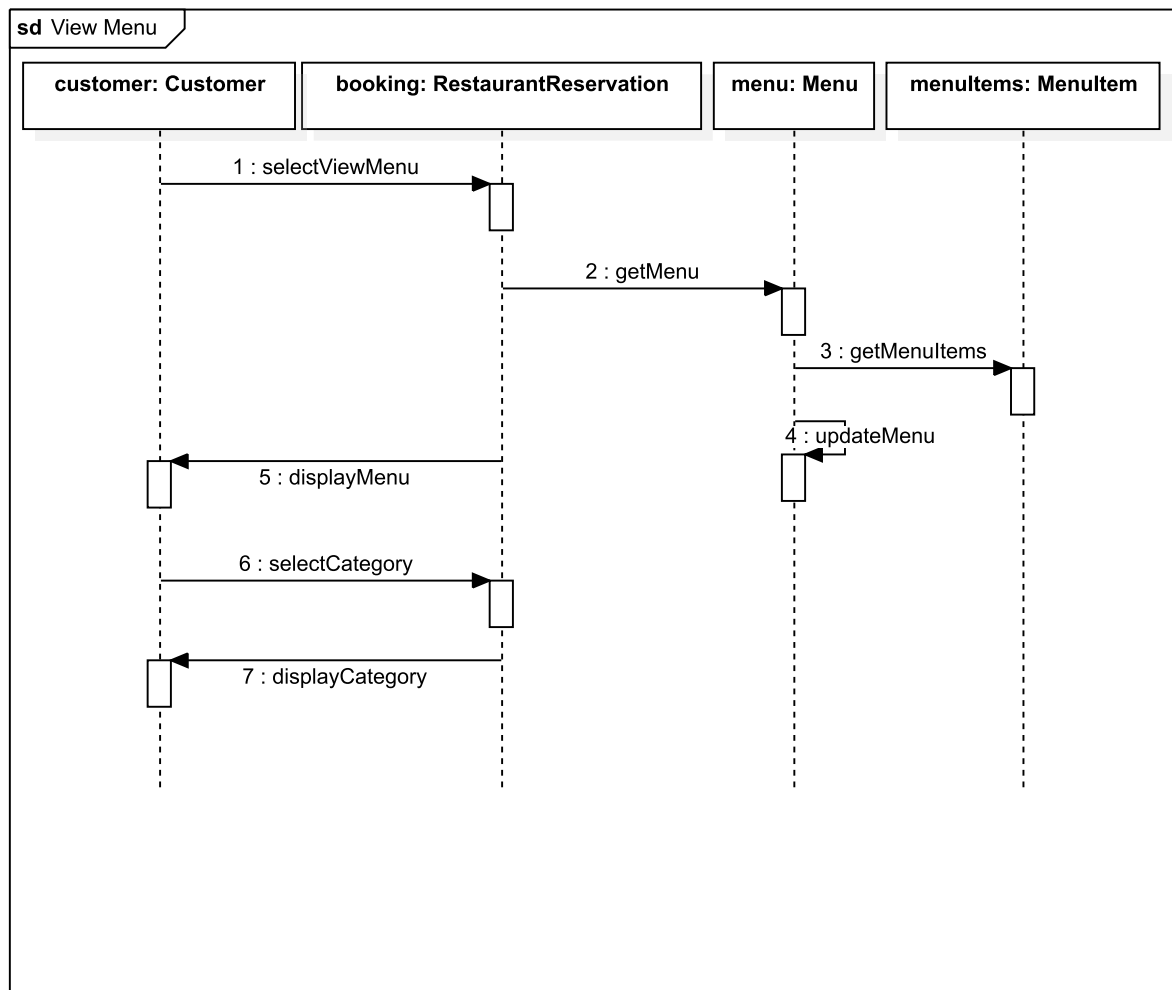




## View Availability



## View Menu



## Message Analysis Tables

### Booking & Payment

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	booking: Booking	book	Syn	-	-
2	booking: Booking	hotelDB: Hotel	availableDates	Syn	-	-
3	booking: Booking	customer: Customer	displayDates	Syn	-	-
4	customer: Customer	booking: Booking	select	Syn	date	-
5	booking: Booking	booking: Booking	updatePrice	Syn	-	-
6	booking: Booking	customer: Customer	personalDetails	Syn	-	-
7	customer: Customer	booking: Booking	provideDetails	Syn	name, phone, etc.	-
8	booking: Booking	customer: Customer	paymentDetails	Syn	-	-
9	customer: Customer	booking: Booking	providePayment	Syn	payment	-
10	booking: Booking	payment: Payment	makePayment	Syn	-	-
11	payment: Payment	booking: Booking	[ok] customerCharged	Syn	-	-
12	booking: Booking	hotelDB: Hotel	updateSchedule	Asyn	-	-
13	booking: Booking	receipt: Receipt	generateReceipt	Asyn	customerDetails, price	-
14	booking: Booking	confirmation: Confirmation	makeConfirmation	Syn	-	-
15	receipt: Receipt	customer: Customer	sendReceipt	Asyn	-	-
16	booking: Booking	customer: Customer	displayConfirmation	Syn	-	-

## Browse Rooms

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	guest: HotelGuest	hotelDB: Hotel	selectAccommodation	Syn	-	-
2	hotelDB: Hotel	rooms: Room	getRooms	Syn	-	-
3	hotelDB: Hotel	guest: HotelGuest	displayRoomTypes	Syn	-	-
4	guest: HotelGuest	hotelDB	selectRoomType	Syn	-	-
5	hotelDB: Hotel	guest: HotelGuest	displayRoom	Syn	-	-
6	guest: HotelGuest	hotelDB: Hotel	viewAvailability	Syn	-	-
7	hotelDB: Hotel	schedules: Schedule	getAvailability	Syn	roomType	-
8	hotelDB: Hotel	guest: HotelGuest	displayCalendar	Syn	-	-
9	Ref. Booking & Payment					

## Book Room

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	guest: Hotel Guest	hotelDB: Hotel	selectRoom	Syn	roomType	-
2	hotelDB: Hotel	booking: RoomBooking	createBooking	Syn	-	-
3	booking: RoomBooking	rooms: Room	getRoom	Syn	roomType	-
4	booking: RoomBooking	guest: Hotel Guest	promptNumberOfGuests	Syn	-	-
5	guest: Hotel Guest	booking: RoomBooking	enterNumberOfGuests	Syn	-	-
6	Ref. Booking & Payment					

## Reserve Table

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: Hotel	selectReserveTable	Syn	-	-
2	hotelDB: Hotel	booking: RestaurantReservation	createBooking	Syn	-	-
3	booking: RestaurantReservation	customer: Customer	promptNumberOfGuests	Syn	-	-
4	customer: Customer	booking: RestaurantReservation	enterNumberOfGuests	Syn	-	-
5	booking: RestaurantReservation	restaurant: Restaurant	requestTables	Syn	-	-
6	restaurant: Restaurant	restaurant: Restaurant	getTable	Syn	-	-
7	booking: RestaurantReservation	customer: Customer	displayTables	Syn	-	-
8	customer: Customer	booking: RestaurantReservation	selectTable	Syn	-	-
9	Ref. Booking & Payment					

## Book Gym

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: Hotel	selectGym	Syn	-	-
2	hotelDB: Hotel	booking: GymBooking	createBooking	Syn	-	-
3	booking: GymBooking	gym: Gym	requestGymSessions	Syn	-	-
4	gym: Gym	gym: Gym	getGymSession	Syn	-	-
5	booking: GymBooking	customer: Customer	displayGymSessions	Syn	-	-
6	customer: Customer	booking: GymBooking	selectGymSession	Syn	-	-
7	booking: GymBooking	customer: Customer	displayDuration	Syn	-	-
8	customer: Customer	booking: GymBooking	selectDuration	Syn	-	-
9	Ref. Booking & Payment					

### Purchase Pass

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: Hotel	purchaseGymPass	Syn	-	-
2	hotelDB: Hotel	gymPass: GymPass	getPrice	Syn	-	-
3	hotelDB: Hotel	customer: Customer	displayPrice	Syn	-	-
4	hotelDB: Hotel	booking: Booking	createPassBooking	Syn	-	-
5	Ref. Booking & Payment					

### Book Spa

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: Hotel	selectSpa	Syn	-	-
2	hotelDB: Hotel	booking: SpaBooking	createBooking	Syn	-	-
3	booking: SpaBooking	customer: Customer	promptNumberOfGuests	Syn	-	-
4	customer: Customer	booking: SpaBooking	enterNumberOfGuests	Syn	-	1-2
5	booking: SpaBooking	spaService: SpaService	getServices	Syn	-	-
6	booking: SpaBooking	customer: Customer	promptService	Syn	-	-
7	customer: Customer	spaBooking: Booking	chooseService	Syn	-	-
8	Ref. Booking & Payment					

## Book Wedding

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	guest: HotelGuest	hotelDB: Hotel	selectWedding	Syn	-	-
2	hotelDB: Hotel	booking: WeddingBooking	createBooking	Syn	-	-
3	booking: WeddingBooking	guest: HotelGuest	promptNumberOfGuests	Syn	-	-
4	guest: HotelGuest	booking: WeddingBooking	enterNumberOfGuests	Syn	-	50-150
5	booking: WeddingBooking	guest: HotelGuest	promptCivilOrReligious	Syn	-	-
6	guest: HotelGuest	booking: WeddingBooking	enterCivilOrReligious	Syn	-	-
7	booking: WeddingBooking	guest: HotelGuest	promptIndoorOrOutdoor	Syn	-	-
8	guest: HotelGuest	booking: WeddingBooking	enterIndoorOrOutdoor	Syn	-	-
9	booking: WeddingBooking	guest: HotelGuest	promptAfterPartyOrDinner	Syn	-	-
10	guest: HotelGuest	booking: WeddingBooking	[ok] enterAfterParty	Syn	-	-
11	guest: HotelGuest	booking: WeddingBooking	[ok] enterDinner	Syn	-	-
12	booking: WeddingBooking	guest: HotelGuest	promptGroomAndBrideDetails	Syn	-	-
13	guest: HotelGuest	booking: WeddingBooking	enterGroomAndBrideDetails	Syn	-	-
14	Ref. Booking & Payment					

## Book Conference

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: Hotel	selectBookConference	Syn	-	-
2	hotelDB: Hotel	booking: ConferenceBooking	createBooking	Syn	-	-
3	hotelDB: Hotel	customer: Customer	promptEventType	Syn	-	-
4	customer: Customer	hotelDB: Hotel	enterEventType	Syn	-	-
5	hotelDB: Hotel	customer: Customer	promptNumberOfAttendees	Syn	-	-
6	customer: Customer	hotelDB: Hotel	enterNumberOfAttendees	Syn	-	-
7	hotelDB	venues: Venue	getVenues	Syn	-	-
8	booking: ConferenceBooking	booking: ConferenceBooking	assignVenue	Syn	-	-
9	Ref. Booking & Payment					

### View Availability

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	hotelDB: hotel	viewAvailability	Syn	service	-
2	hotelDB: Hotel	schedules: Schedule	getSchedules	Syn	service	-
3	hotelDB: Hotel	hotelDB: Hotel	assignDatesToCalendar	Syn	-	-
4	hotelDB: Hotel	customer: Customer	displayCalendar	Syn	-	-

### View Menu

Sequence Num	Caller	Callee	Msg Name	Msg Type	Msg Param	Msg Constrain
1	customer: Customer	booking: RestaurantReservation	selectViewMenu	Syn	-	-
2	booking: RestaurantReservation	menu: Menu	getMenu	Syn	-	-
3	menu: Menu	menuItems: MenuItem	getMenuItems	Syn	-	-
4	menu: Menu	menu: Menu	updateMenu	Syn	-	-
5	booking: RestaurantReservation	customer: Customer	displayMenu	Syn	-	-
6	customer: Customer	booking: RestaurantReservation	selectCategory	Syn	-	-
7	booking: RestaurantReservation	customer: Customer	displayCategory	Syn	-	-
8	Ref. Booking & Payment					



## Test Cases

### Booking & Payment

Name	TC-001 Booking & Payment
Requirement	The user can make and pay for a booking
Preconditions	<ol style="list-style-type: none"><li>1. Available dates for the type of booking being made</li><li>2. Having a valid payment method</li><li>3. Having an email address or phone number</li></ol>
Steps	<ol style="list-style-type: none"><li>1. Select available date(s)</li><li>2. Click book</li><li>3. Enter personal details</li><li>4. Proceed to payment</li><li>5. Choose payment method</li><li>6. Enter payment details</li><li>7. Click pay</li></ol>
Expected results	<ul style="list-style-type: none"><li>• Receiving confirmation of booking via email and/or phone</li><li>• Receiving a receipt of payment via email</li><li>• Database contains booking information</li></ul>

### Browse Rooms

Name	TC-002: Browse Rooms
Requirement	The user can browse rooms
Preconditions	<ol style="list-style-type: none"><li>1. The user having access to the UI of the system</li><li>2. The user selecting accommodation on the UI</li></ol>
Steps	<ol style="list-style-type: none"><li>1. Choose double room</li></ol>
Expected results	The booking contains a double room

### Book Room

Name	TC-003: Book Room
Requirement	The user can book a room at the hotel
Preconditions	<ol style="list-style-type: none"><li>1. The user browsing rooms at the hotel</li><li>2. The user having a valid payment method</li><li>3. The user having an email address</li></ol>
Steps	<ol style="list-style-type: none"><li>1. Enter 2 guests for a double room selected</li></ol>
Expected results	<ol style="list-style-type: none"><li>1. The room booking contains a double room and 2 guests</li><li>2. The confirmation contains details of this booking and the dates selected</li></ol>

### Reserve Table

Name	TC-004: Reserve Table
Requirement	The user can reserve a table at the hotel's restaurant
Preconditions	The user is a hotel guest or customer
Steps	<ol style="list-style-type: none"><li>1. Enter 4 guests</li><li>2. Select table number T08</li></ol>
Expected results	The reservation contains 4 guests at table number T08

### Book Gym

Name	TC-005: Book Gym
Requirement	The user can book a session at the hotel's gym
Preconditions	<ol style="list-style-type: none"><li>1. The user selecting gym on the system's UI</li><li>2. The user having a valid payment method</li></ol>
Steps	<ol style="list-style-type: none"><li>1. Select book PT session</li><li>2. Enter 60 minutes for the duration</li></ol>
Expected results	The gym booking contains PT session and a duration of 60 minutes

### Purchase Pass

Name	TC-006: Purchase Pass
Requirement	The user can purchase a pass
Preconditions	The user is a customer of the hotel
Steps	Select purchase day pass for the gym
Expected results	The user receives a day pass sent to them via email

### Book Spa

Name	TC-007 Book Spa
Requirement	The user can make a booking at the spa.
Preconditions	<ol style="list-style-type: none"><li>1. The user is a hotel guest or customer.</li></ol>
Steps	<ol style="list-style-type: none"><li>1. Click book spa</li><li>2. Enter 2 guests</li><li>3. Select "royalty" treatment package</li><li>4. Continue to booking &amp; payment</li></ol>
Expected results	<ol style="list-style-type: none"><li>1. Booking contains "royalty" treatment package</li><li>2. Booking contains 2 guests</li><li>3. [Equivalent to TC-001 Booking &amp; Payment]</li></ol>

### Book Wedding

Name	TC-008: Book Wedding
Requirement	The user can make a booking for their wedding.
Preconditions	The user is a hotel guest or customer.
Steps	<ol style="list-style-type: none"><li>1. Click book wedding</li><li>2. Enter 120 guests</li><li>3. Select "religious"</li><li>4. Select "outdoor"</li><li>5. Check "after party"</li><li>6. Uncheck "dinner"</li><li>7. Enter "Darian" groom, "Vikki" bride</li><li>8. Continue to booking &amp; payment</li></ol>
Expected results	<ol style="list-style-type: none"><li>4. Booking contains 120 guests</li><li>5. Booking contains "religious", "outdoor"</li><li>6. Booking contains "after party"</li><li>7. Booking contains "Darian" groom, "Vikki" bride</li><li>8. [Equivalent to TC-001 Booking &amp; Payment]</li></ol>

### Book Conference

Name	TC-009: Book Conference
Requirement	The user can book a conference at the hotel
Preconditions	The user selecting book conference on the UI
Steps	<ol style="list-style-type: none"><li>1. Select "Fire Training"</li><li>2. Enter 40 attendees</li><li>3. Proceed to booking and payment</li></ol>
Expected results	<ol style="list-style-type: none"><li>1. The conference booking contains fire training as the event type</li><li>2. The conference booking contains 40 attendees</li></ol>

### View Availability

Name	TC-010: View Availability
Requirement	The user can view the availability of a desired service at the hotel
Preconditions	The user has selected a service type
Steps	<ol style="list-style-type: none"><li>1. Select 10<sup>th</sup>-12<sup>th</sup> February on the calendar</li></ol>
Expected results	<ol style="list-style-type: none"><li>1. The system displays if the dates 10<sup>th</sup>-12<sup>th</sup> February are available</li></ol>

### View Menu

Name	TC-011: View Menu
Requirement	The user can view the menu at the hotel's restaurant
Preconditions	The user is a hotel guest or customer
Steps	View the desserts category
Expected results	The desserts category is presented to the user on the UI along with the price of each dessert option and any allergens

## Contributions

<i>Date</i>	<i>Person(s)</i>	<i>Work</i>
08 October 2024	Kyle, Darian	Use case diagram initial draft
09 October 2024	Milo, Darian	User stories initial draft
10 October 2024	Kyle	Use case diagram UML
14 October 2024	Kyle	Uploaded project summary
15 October 2024	Kyle, Darian	Use case diagram final
16 October 2024	Darian, Milo, Kyle	User stories final
18 October 2024	Kyle	Scenario specifications - booking & payment, book room, browse room, book gym
20 October 2024	Darian	Scenario specification reserve table
22 October 2024	Darian	Scenario specification book wedding
04 November 2024	Darian	Scenario specification book spa
04 November 2024	Kyle	Scenario specification - view availability
04 November 2024	Milo	Scenario specification view menu, book conference
07 November 2024	Kyle	Initial class diagram
07 November 2024	Milo	Alternative class diagram
09 November 2024	Kyle	Updated class diagram and inserted it into working document
13 November 2024	Darian	Sequence diagram booking & payment
14 November 2024	Kyle	Sequence diagram browse rooms
14 November 2024	Kyle	Sequence diagram book room, reserve table
15 November 2024	Kyle	Sequence diagram book gym
15 November 2024	Kyle	Message analysis tables - browse rooms, book room, reserve table, book gym
17 November 2024	Darian	Sequence diagram purchase pass
18 November 2024	Darian	Sequence diagram book spa
19 November 2024	Darian	Sequence diagram book wedding
20 November 2024	Darian	Message analysis tables - booking & payment, purchase pass, book spa, book wedding
21 November 2024	Kyle	Sequence diagram book conference, view availability, view menu. Pasted all sequence diagrams into working document
21 November 2024	Darian	Test case booking & payment
21 November 2024	Kyle	Finished message analysis tables and pasted them into working document
23 November 2024	Darian	Test case purchase pass, book spa, book wedding; Book wedding steps rework
26 November 2024	Kyle	Test case browse rooms, book room, reserve table, book gym
26 November 2024	Kyle	Test case book conference, view availability, view menu
26 November 2024	Darian	Updated sequence diagrams book room, reserve table, book gym, book conference,
26 November 2024	Darian	Updated message analysis tables book room, reserve table, book gym, book conference,
26 November 2024	Darian	Updated message analysis tables browse rooms

<i>28 November 2024</i>	Darian, Milo, Kyle	Edited scenarios, sequence diagrams and message analysis tables
<i>28 November 2024</i>	Darian	Final editing and formatting to document and diagrams throughout