

Sequence Diagram for the Restaurant Management System

Create a sequence diagram for order modification in the restaurant management system and solve a challenge.

We'll cover the following

- Modifying an order
- Sequence challenge: The guest pays for the order

Sequence diagrams are a great way to understand the interactions between different entities and objects in the system. There can be different sequence diagrams that we can create for our restaurant management system. In this lesson, we will create sequence diagrams for the following two interactions:

- Modifying an order
- Sequence challenge:** The guest pays for the order.

Modifying an order

The sequence diagram for modifying an order should have the following actors and objects that will interact with each other:

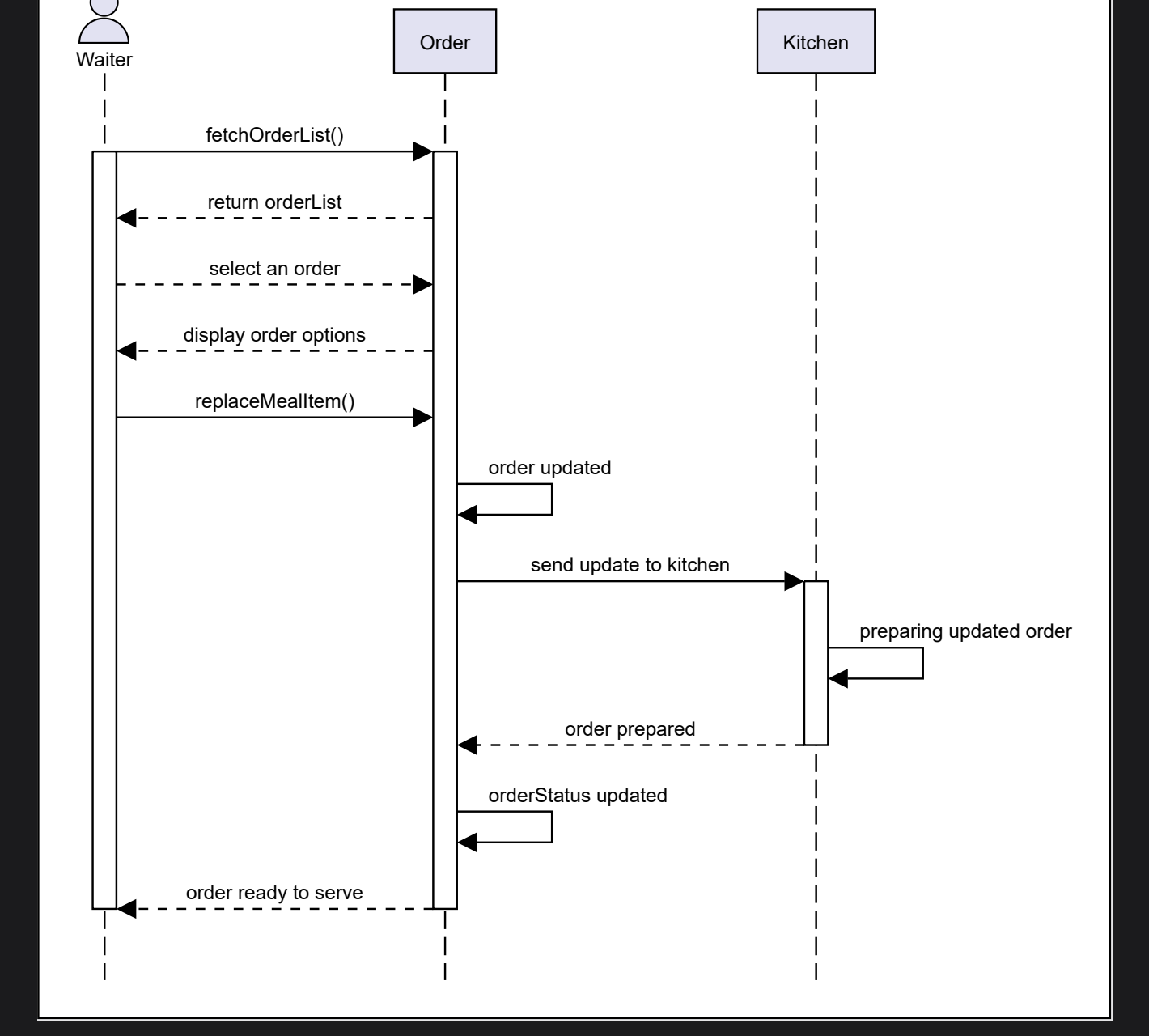
- Actor:** `Waiter`
- Objects:** `Order`, `Kitchen`, and `bill`

Note: Let us assume that the meal is not yet prepared.

Here're the steps in the order modification interaction:

- The waiter initiates the process by adding a meal item to the order.
- The order is then updated. The updated order is sent to the kitchen for preparation.
- The order is started to be prepared in the kitchen.
- Simultaneously, the waiter updates the bill, as per the modified order.
- After that, bill is updated.
- The kitchen sends a message about the order indicating that it is prepared.
- The order status is updated to "prepared."
- The waiter serves the order.

Based on the order above, the sequence diagram of modifying an order in a restaurant management system is given below:

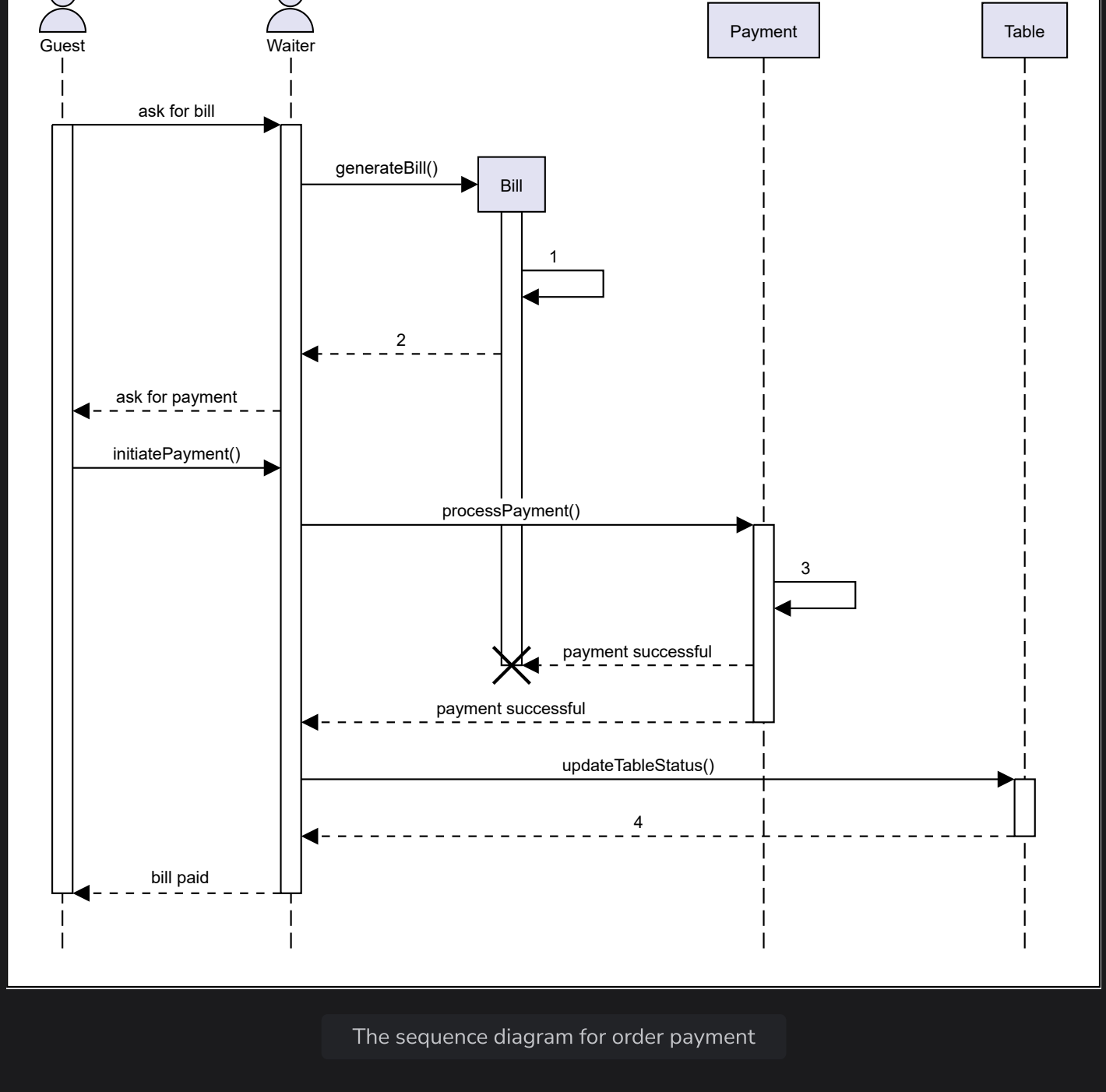


The sequence diagram for modifying an order

Sequence challenge: The guest pays for the order

Let's complete a sequence diagram for the order payment at the restaurant.

A skeleton of the sequence diagram, given that the payment is successful, is provided below:



The sequence diagram for order payment

Notice that the arrows in the diagram above are numbered from 1 to 5. The message boxes shown below are the messages to be exchanged between the actor(s) and object(s). Can you rearrange the messages below in the correct sequence they should appear in the skeleton of the sequence diagram above?

Rearrange the sequence.

ask for Bill

generateBill()

calculateBill()

bill()

ask for Payment

InitiatePayment()

processPayment()

updatePaymentStatus()

payment successful

payment successful

updateTableStatus()

tableStatus updated

bill paid

Reset

Show Solution

Submit

Alternatively, click the "Show complete diagram" button to view the complete sequence diagram of the check-out interaction.

Hide complete diagram