

Use Case Specifications

Use-Case Specification Outline

A use-case specification provides textual detail for a use case.

- **Use Case Description:** A short paragraph (5-10 sentences) that describes the role and purpose of the use case.
- **Use Case Name:** A very short phrase describing the interaction of an actor (person, program, system, etc.) with the system. Should begin with an active verb. Typically, the name expresses the objective or observable result of the use case, such as "Withdraw Cash" in the case of an ATM machine.
- **Actor(s):** A use case diagram shows the interaction between the system and entities external to the system. These external entities are referred to as actors. Actors represent roles, which may include human users, external hardware or other systems. A list of the human and non-human entities that communicate with the use case.
- **Trigger(s):** Description of the event or circumstance that causes the start of the use.
- **Precondition(s):** A state of the system that must be present before a use case is performed.
- **Post condition(s):** A list of possible states for the system immediately after a use case is finished.
- **Flow of events:** Presents the basic flow and alternative flows. The flow of events describes the behavior of the system step by step; it does not describe how the system works, the details of the presentation, or the details of the user interface. If information is exchanged, the use case must be specific about what is passed back and forth. For example, "The actor enters the customer name and address" is much more descriptive than "The actor enters customer information".
 - **Basic (Normal) flow:** Describes the ideal, primary behavior of the system.
 - **Alternative flow(s):** Describes exceptions or deviations from the basic flow, such as how the system behaves when the actor enters an incorrect user ID and the user authentication fails.

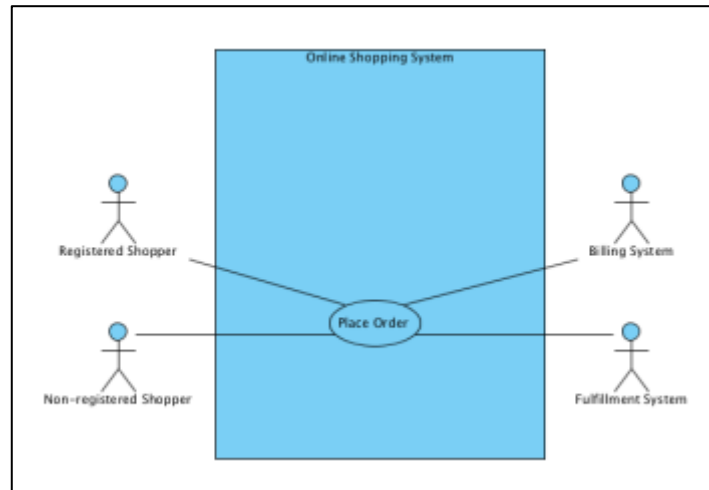
Optional Descriptions

- **Related business rules:** Business rules are the written and unwritten rules that dictate how a company runs its business. This section documents or refers to business rules that relate to this interaction.
- **Author:** The name of the individual entering information into the use case description.
- **Date:** The date of modification for the use case description.
- **Assumption(s):** Description of any conditions assumed to be true, but which might not be true.
- **Special requirement(s):** A nonfunctional requirement that is specific to a use case but is not specified in the text of the use case flow of events. Examples of special requirements include: legal and regulatory requirements; application standards; quality attributes of the system, including usability, reliability, performance, and supportability; operating systems and environments; compatibility requirements; and design constraints.
- **Extension point(s):** A point in the use-case flow of events at which another use case is referenced.

Use Case Description Template (for This Course)
Use Case Description
Use Case Name
Actors
Triggers
Preconditions
Post Conditions
Normal Flow
Alternate Flow

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Example 1: Online Shopping System



Use Case Description: After the user has selected items to purchase and then order the items. The user will provide payment and shipping information. The system will respond with confirmation of the order and a tracking number that the user can use to check on order status in the future. The system will also provide the user with an estimated delivery date for the order, which will include all selected items. The user may already have an account with the company with billing and shipping information.

Use Case Name: Place Order

Actors:

- Registered Shopper (Has an existing account, possibly with billing and shipping information)
- Non-registered Shopper (Does not have an existing account)
- Fulfillment System (Processes orders for delivery to customers)
- Billing System (Bills customers for orders that have been placed)

Triggers:

- The user indicates that she wants to purchase items that she has selected.

Preconditions:

- User has selected the items to be purchased.

Post conditions:

- The order will be placed in the system.
- The user will have a tracking ID for the order.
- The user will know the estimated delivery date for the order.

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Normal Flow:

1. The user will indicate that she wants to order the items that have already been selected.
2. The system will present the billing and shipping information that the user previously stored.
3. The user will confirm that the existing billing and shipping information should be used for this order.
4. The system will present the amount that the order will cost, including applicable taxes and shipping charges.
5. The user will confirm that the order information is accurate.
6. The system will provide the user with a tracking ID for the order.
7. The system will submit the order to the fulfillment system for evaluation.
8. The fulfillment system will provide the system with an estimated delivery date.
9. The system will present the estimated delivery date to the user.
10. The user will indicate that the order should be placed.
11. The system will request that the billing system should charge the user for the order.
12. The billing system will confirm that the charge has been placed for the order.
13. The system will submit the order to the fulfillment system for processing.
14. The fulfillment system will confirm that the order is being processed.
15. The system will indicate to the user that the user has been charged for the order.
16. The system will indicate to the user that the order has been placed.
17. The user will exit the system.

Alternate Flows:

3A1: The user enters billing and shipping information for the order. The user desires to use shipping and billing information that differs from the information stored in her account. This alternate flow also applies if the user does not maintain billing and / or shipping information in their account, or if the user does not have an account.

1. The user will indicate that this order should use alternate billing or shipping information.
2. The user will enter billing and shipping information for this order.
3. The system will validate the billing and shipping information.
4. The use case continues.

5A1: The user will discover an error in the billing or shipping information associated with their account, and will change it.

1. The user will indicate that the billing and shipping information is incorrect.
2. The user will edit the billing and shipping information associated with their account.
3. The system will validate the billing and shipping information.
4. The use case returns to step 2 and continues.

5A2: The user will discover an error in the billing or shipping information that is uniquely being used for this order, and will change it.

1. The user will indicate that the billing and shipping information is incorrect.
2. The user will edit the billing and shipping information for this order.
3. The use case returns to step 3A1 step 3.

10A1: The user will determine that the order is not acceptable (perhaps due to dissatisfaction with the estimated delivery date) and will cancel the order.

1. The user will request that the order be cancelled.
2. The system will confirm that the order has been cancelled.
3. The use case ends.