

Use Case Modelling II

CSIT883 System Analysis and Project Management



UNIVERSITY
OF WOLLONGONG
AUSTRALIA





Outline

Fully Developed Use Case Description

Activity Diagram

System Sequence Diagram

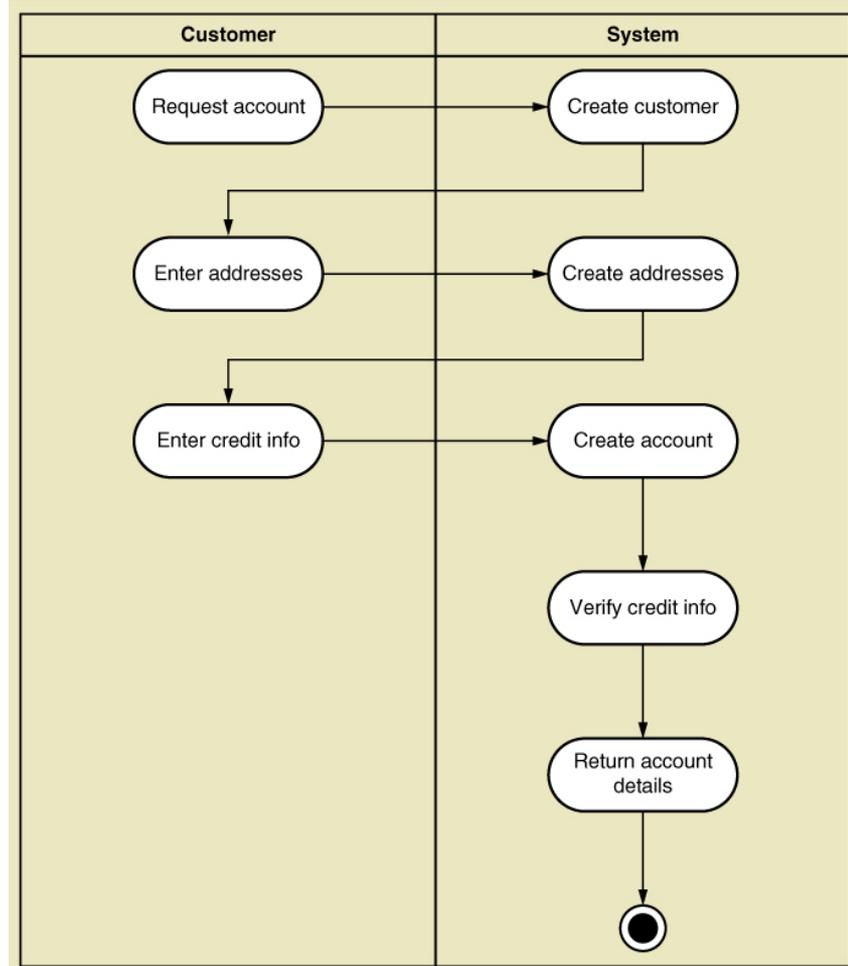
CRUD Analysis

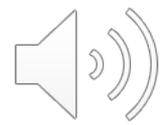


UML Activity Diagram for Use Case

Create Customer Account

Note: this shows flow of activities only

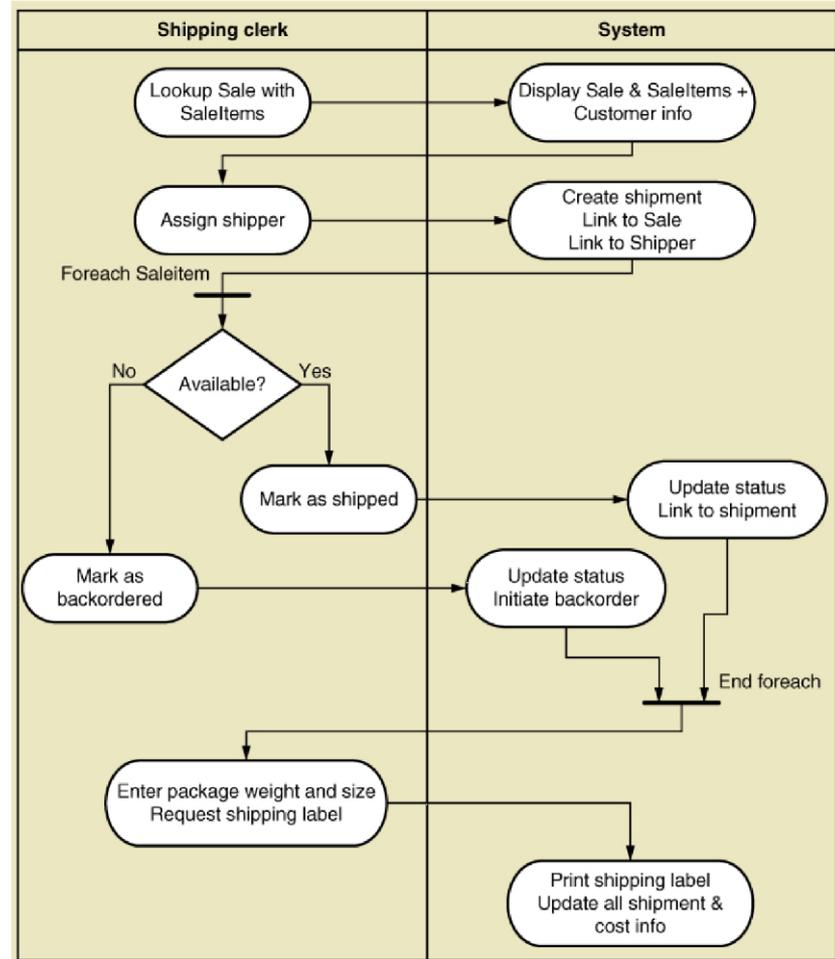




Activity Diagram for *Ship Items* Use Case

Note:

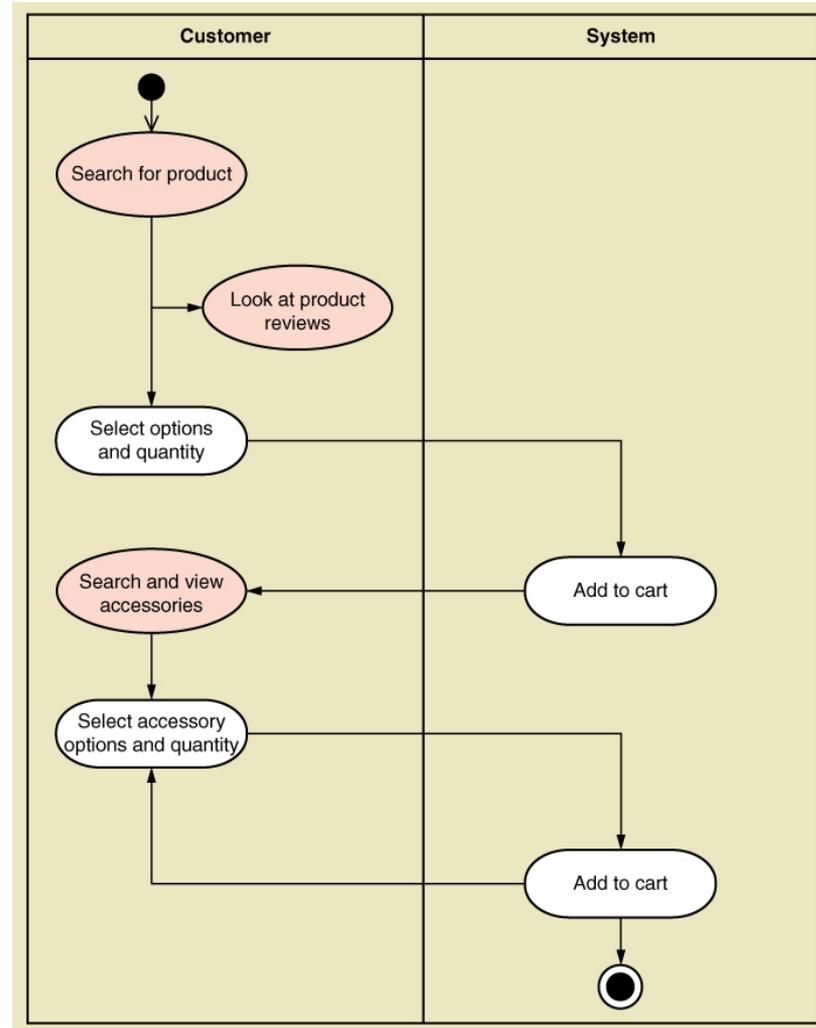
- Synchronization bar for loop
- Decision diamond

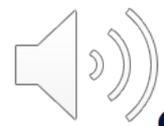




UML Activity Diagram for Use Case *Fill Shopping Cart*

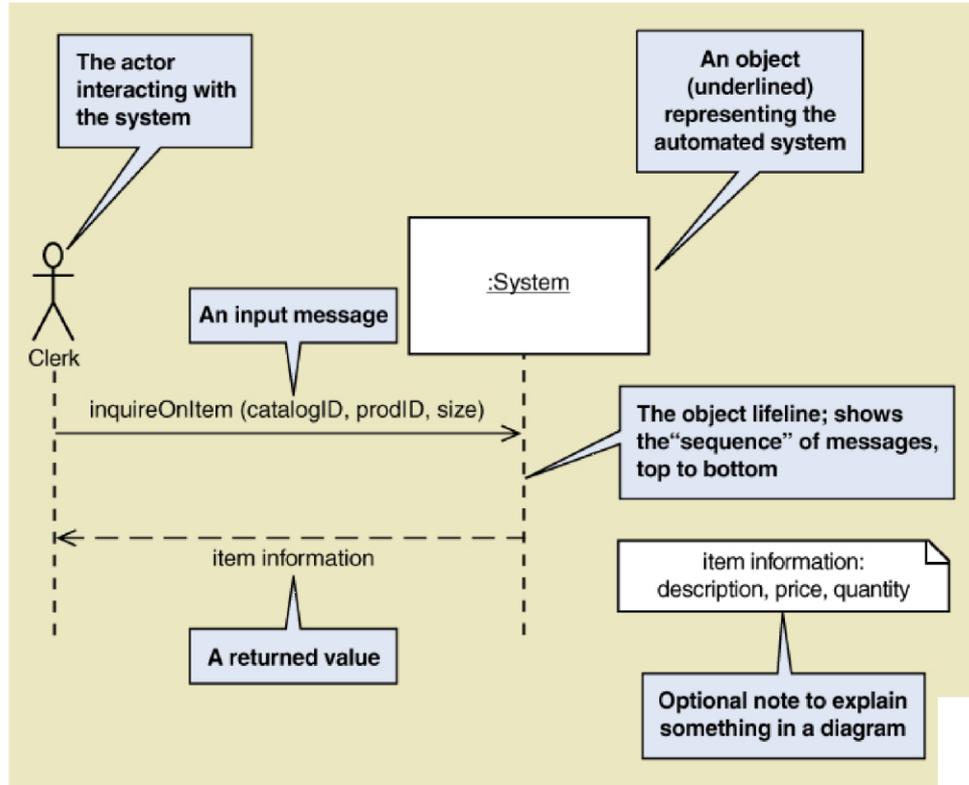
Note: this shows use case with <<includes>> relationship

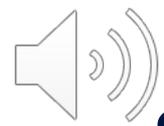




System Sequence Diagram (SSD) Notation

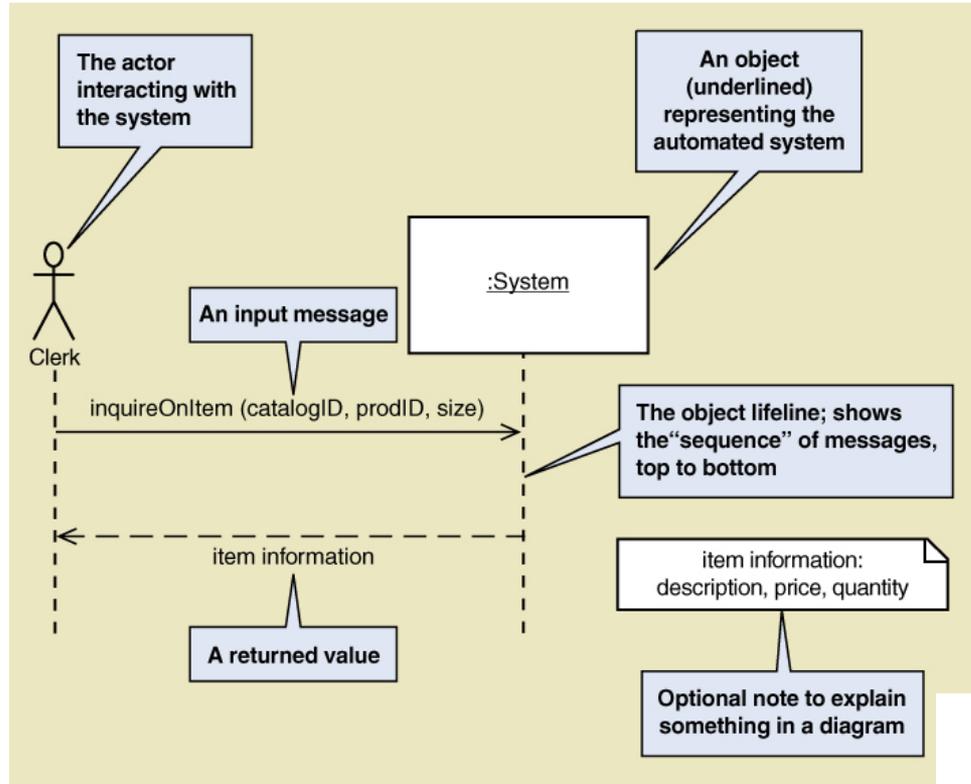
- **System sequence diagram** – a diagram showing the sequence of messages between an actor and the automated part of the system during a use case or scenario





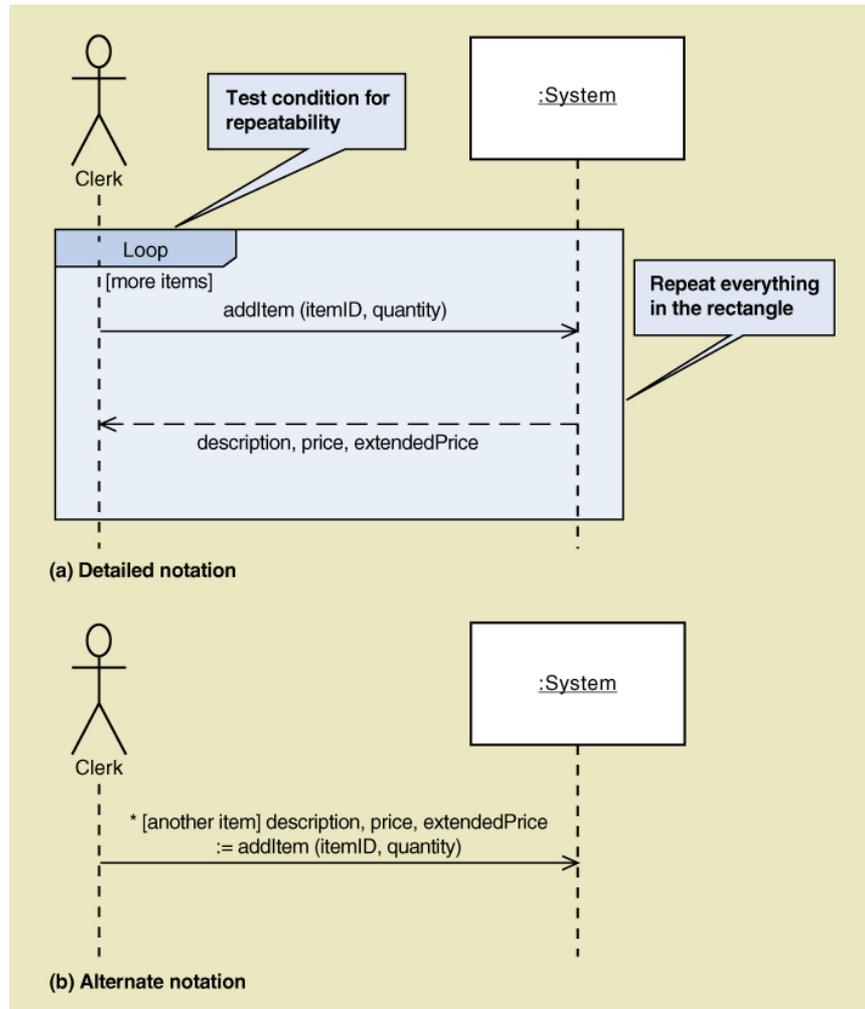
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- **System sequence diagram** – a diagram showing the sequence of messages between an actor and the automated part of the system during a use case or scenario





SSD Message Examples with Loop Frame





SSD Message Examples with Loop Frame

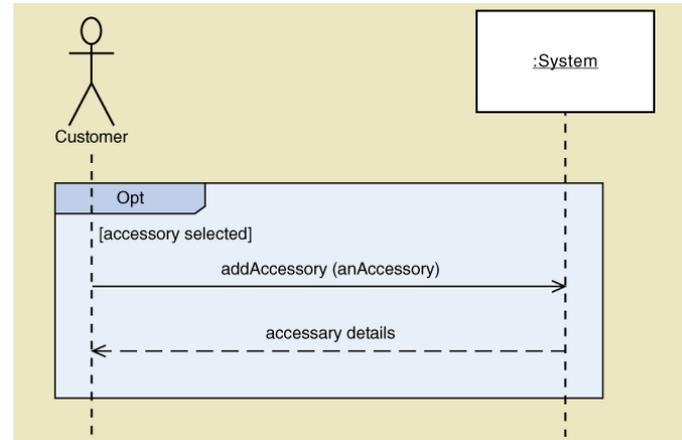
- **[true/false condition] return-value := message-name (parameter-list)**
 - An asterisk (*) indicates repeating or looping of the message
 - Brackets [] indicate a true/false condition. This is a test for that message only. If it evaluates to true, the message is sent. If it evaluates to false, the message isn't sent.
 - Message-name is the description of the requested service written as a verb-noun.
 - Parameter-list (with parentheses on initiating messages and without parentheses on return messages) shows the data that are passed with the message.
 - Return-value on the same line as the message (requires :=) is used to describe data being returned from the destination object to the source object in response to the message.



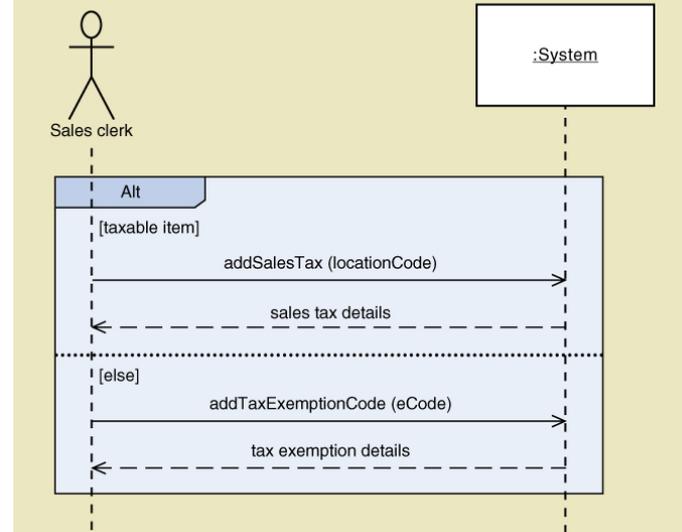
SSD Message Examples

(a) Opt Frame (optional)

(b) Alt Frame (if-else)



(a) Opt frame notation



(b) Alt frame notation