

Use Case Modelling I

CSIT883 System Analysis and Project Management



UNIVERSITY
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Outline

Use Cases in the RMO Case

Brief Use Case Description

Use Case Diagram



The RMO CSMS Case

- The subsystems of Consolidated Sales and Marketing System (CSMS):
 - Customer Account Subsystem
 - Sales Subsystem
 - Order Fulfillment Subsystem
 - Marketing Subsystem
 - A fifth subsystem: Reporting Subsystem



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- The subsystems of Consolidated Sales and Marketing System (CSMS):
 - Customer Account Subsystem
 - Sales Subsystem
 - Order Fulfillment Subsystem
 - Marketing Subsystem
 - A fifth subsystem: Reporting Subsystem

} whose use cases will be detailed



The Sales Subsystem use cases

CSMS Sales Subsystem	
Use cases	Users/actors
Search for item	Customer, customer service representative, store sales representative
View product comments and ratings	Customer, customer service representative, store sales representative
View accessory combinations	Customer, customer service representative, store sales representative
Fill shopping cart	Customer
Empty shopping cart	Customer
Check out shopping cart	Customer
Fill reserve cart	Customer
Empty reserve cart	Customer
Convert reserve cart	Customer
Create phone sale	Customer service representative
Create store sale	Store sales representative



The Customer Account Subsystem use cases

CSMS Customer Account Subsystem	
Use cases	Users/actors
Create/update customer account	Customer, customer service representative, store sales representative
Process account adjustment	Management
Send message	Customer
Browse messages	Customer
Request friend linkup	Customer
Reply to linkup request	Customer
Send/receive partner credits	Customer
View "mountain bucks"	Customer
Transfer "mountain bucks"	Customer



Brief Use Case Description

- Brief use case description is often a one sentence description showing the main steps in a use case
- Some examples of brief use case descriptions for the Customer Account Subsystem

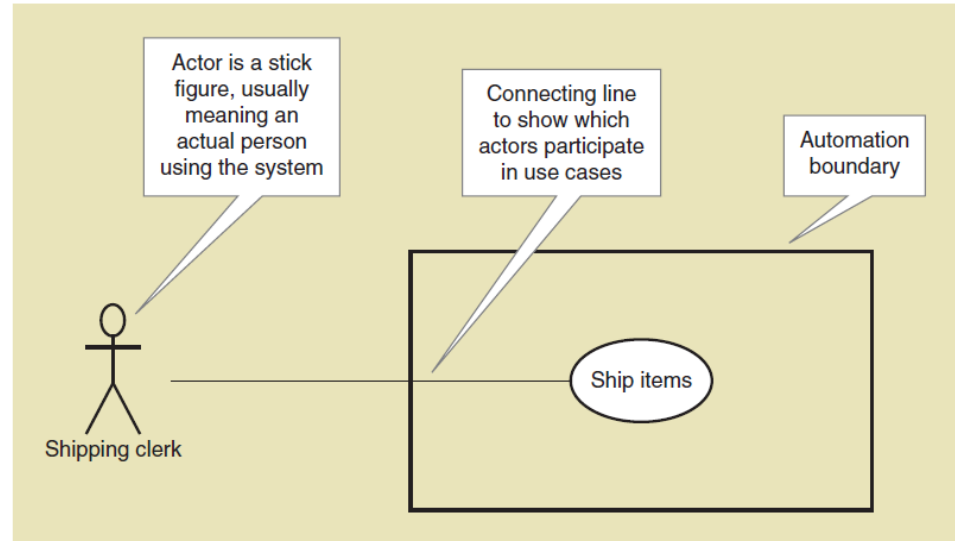
Use case	Brief use case description
<i>Create customer account</i>	User/actor enters new customer account data, and the system assigns account number, creates a customer record, and creates an account record.
<i>Look up customer</i>	User/actor enters customer account number, and the system retrieves and displays customer and account data.
<i>Process account adjustment</i>	User/actor enters order number, and the system retrieves customer and order data; actor enters adjustment amount, and the system creates a transaction record for the adjustment.



Use Case Diagrams

- Use case diagram—a UML model used to *graphically show uses cases and their relationships to actors*
 - Recall UML is a standard for diagrams and terminology for developing information systems
- **Actor** is the UML name for an end user
- **Automation boundary**— the boundary between the computerized portion of the application and the users who operate the application

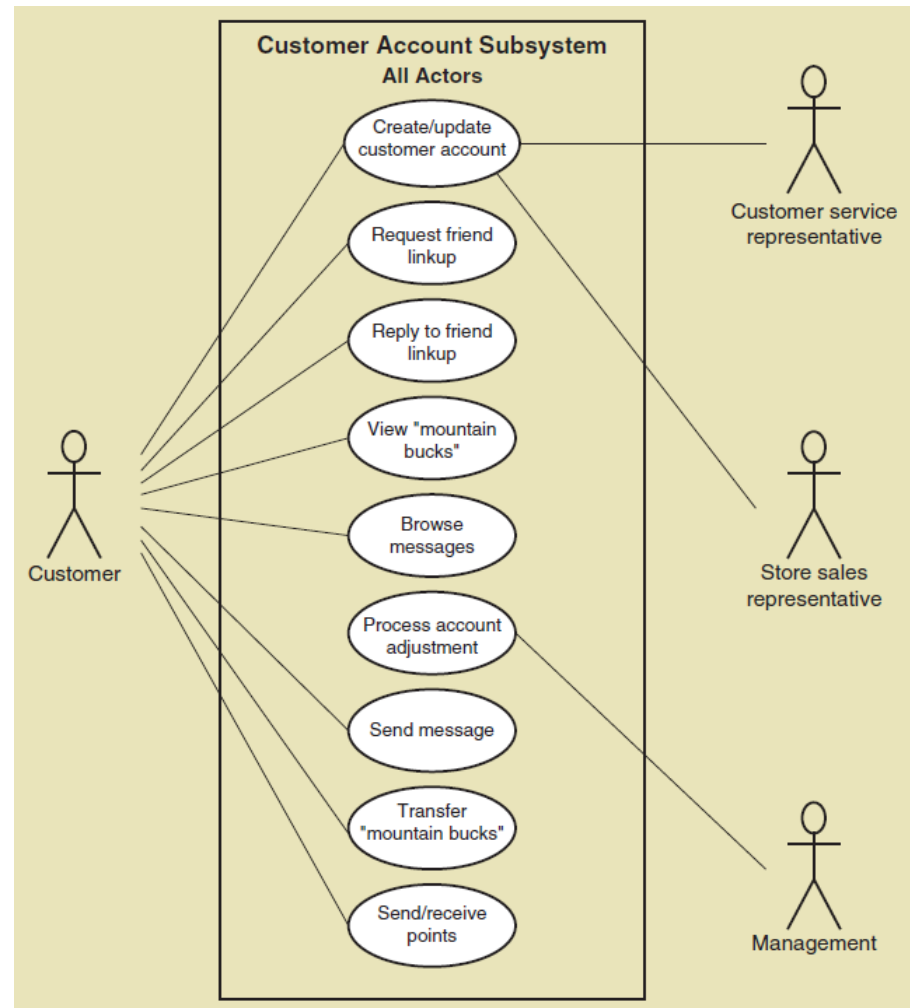
A simple use case (Ship items) with an actor:





The use case diagram for Customer Account Subsystem for all actors

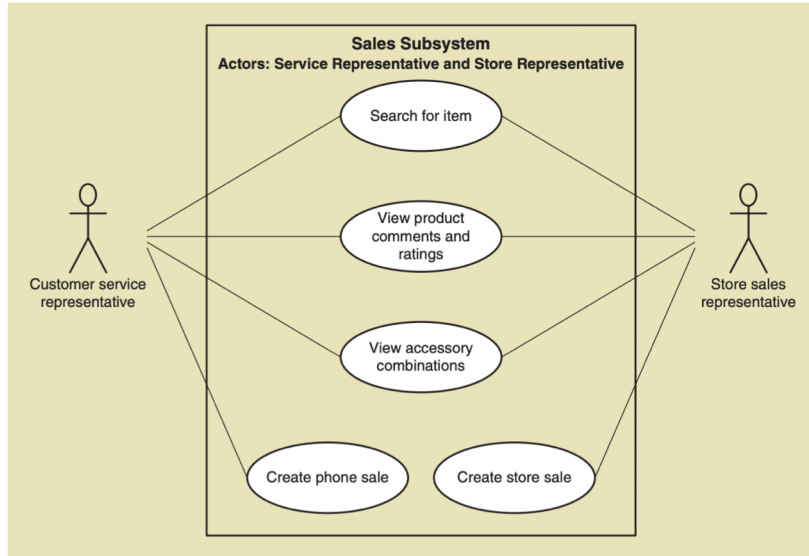
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Different Perspectives of Use Cases

Use cases involving the customer service representative and store sales representative for the Sales subsystem:



All use cases involving the customer actor for the Sales subsystem



Sales Subsystem
Actor: Customer

Search for item

View product comments and ratings

View accessory combinations

Fill shopping cart

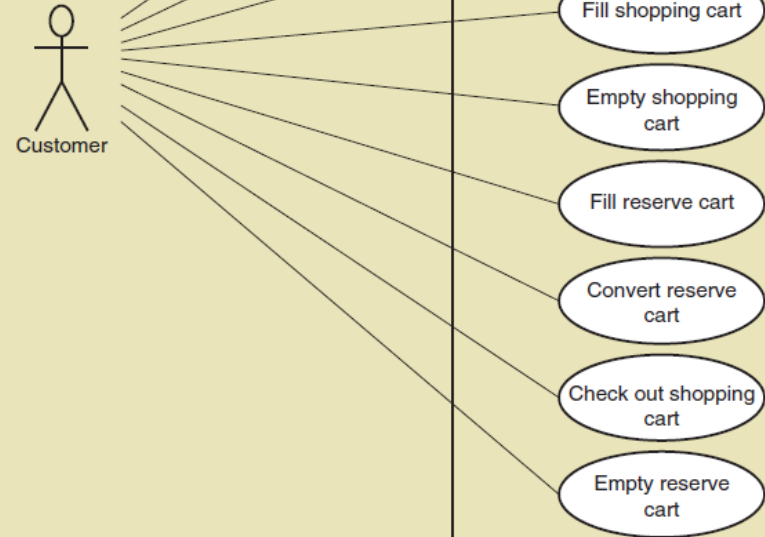
Empty shopping cart

Fill reserve cart

Convert reserve cart

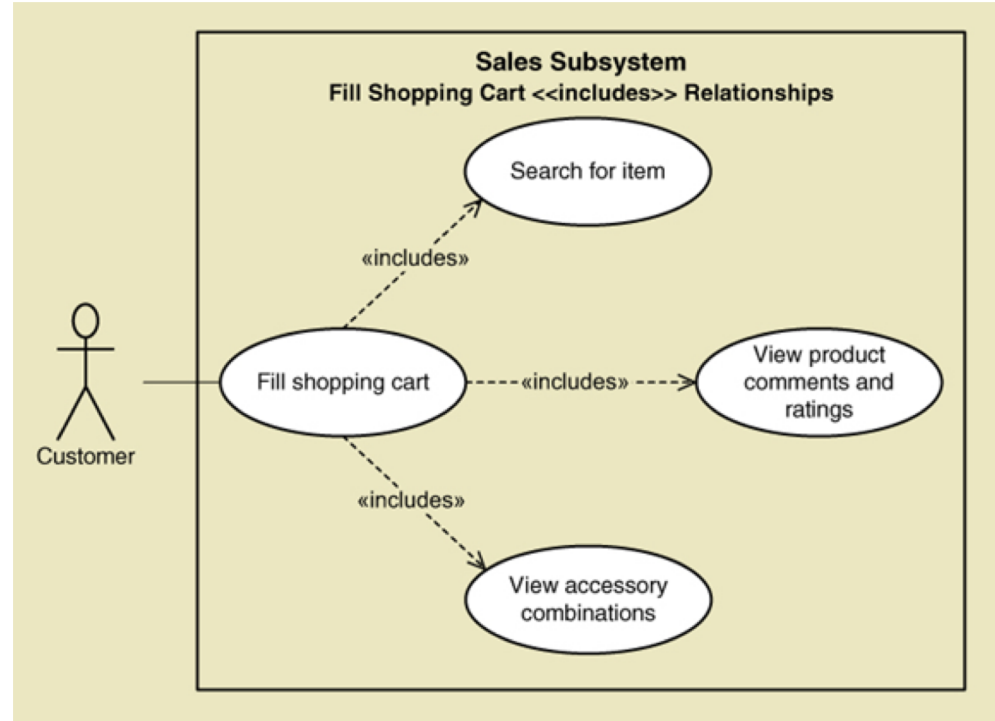
Check out shopping cart

Empty reserve cart



Use Case Diagrams—The <<Includes>> relationship

- A relationship between use cases where one use case is stereotypically included within the other use case—like a called subroutine. Arrow points to subroutine





Steps in Developing Use Case Diagrams

1. Identify all the stakeholders and users who would benefit by seeing a use case diagram
2. Determine what each stakeholder or user needs to review in a use case diagram: each subsystem, for each type of user, for use cases that are of interest
3. For each potential communication need, select the use cases and actors to show and draw the use case diagram.
4. Carefully name each use case diagram and then note how and when the diagram should be used to review use cases with stakeholders and users



Summary

- Brief use case descriptions are one-sentence overviews for use cases.
- The use case diagram is the UML diagram used to show the use cases and the actors.
- The use case diagram shows the actors, the automation boundary, the uses cases that involve each actor, and the <<includes>> relationship.
- A variety of use case diagrams are drawn depending on the presentation needs of the analysis.