

Information Systems Concepts



Tutorial: Online Shopping

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Based on Chapter 10 of Maciaszek, L.A.:

Requirements Analysis and System Design (3rd edition) Addison Wesley, 2007



Outline

- Use Case Modelling
- Activity Modelling
- Class Modelling
- Interaction Modelling



Online Shopping: Background (1)

- Buying computers over the Internet
using the manufacturer's web page
- Computers classified into
servers, desktops and laptops
- Customer can select standard configuration
or can configure their own configuration
 - For each new configuration,
the system can calculate its price
- To place an order, the customer must fill in
shipment and payment information



Online Shopping: Background (2)

- The system sends a confirmation e-mail message to the customer with details of the order
- Customer can check the order status online at any time
- Moreover, the system needs to
 - verify the customer's credentials and payment methods
 - request the ordered configuration from the warehouse
 - print an invoice
 - request the warehouse to ship the computer to the customer

Activity Modelling



Order Computer

- (1)** The use case begins when the Customer decides to order the configured computer by choosing the Continue (or similarly named) function when order details are displayed on the screen.
- (2)** The system requests the Customer to enter purchase details, including name of the salesperson (if known), shipment details (customers name and address), invoice details (if different from shipment details), a payment method (credit card or cheque) and any comments.
- (3)** The Customer chooses the Purchase (or similarly named) function to send the order to the manufacturer.
- (4)** The system assigns a unique order number and a customer account number to the purchase order and stores the order information in the database.
- (5)** The system e-mails the order number and customer number to the Customer, together with all the order details, as confirmation of acceptance of the order.
- (6)** The Customer activates the Purchase function before providing all mandatory information. The system displays an error message and requests that the missing information be supplied.
- (7)** The Customer chooses the Reset (or similarly named) function to revert to an empty purchase form. The system allows the Customer to enter the information again.



Step 5: Actions from Use Case Description

(3) The *Customer* chooses the *Purchase* (or similarly named) function to send the order to the manufacturer.

Get
Purchase Details

(4) The system assigns a unique order number and a customer account number to the purchase order and it stores the order information in the database.

Store Order

(5) The system e-mails the order number and the customer number to the *Customer*, together with all order details, as the confirmation of the order's acceptance.

E-mail
Order Details



Actions for the Use Case

(1)

Display Current
Configuration

Get Order
Request

(2)

Display
Purchase Form

(3)

Get
Purchase Details

(4)

Store Order

(5)

E-mail
Order Details

(6)

Display
Purchase Form

Get
Purchase Details

(7)

Display
Purchase Form

Step 6: Activity Diagram for the Use Case

