### 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

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### 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.

(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.

(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.

Get
Purchase Details

Store Order

E-mail Order Details



#### **Actions for the Use Case**

(1)

Display Current Configuration Get Order Request

(2)

Display
Purchase Form

Get

(3)(4)

Store Order

Purchase Details

(5)

E-mail
Order Details

Display

Get

(6)

Purchase Form

Purchase Details

8

(7)

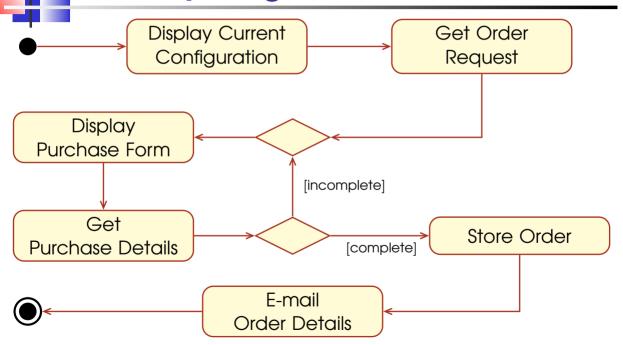
Display
Purchase Form

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# Step 6: Activity

**Activity Diagram for the Use Case** 



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10