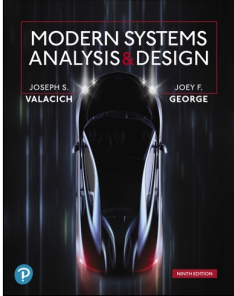


**Modern Systems Analysis and Design**  
Ninth Edition



**Appendix 7C**  
Business Process Modeling

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1

**Learning Objectives**

**7C.1** Understand how to represent business processes with business process diagrams

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2

**Business Process Modeling**

**7C.1** Understand how to represent business processes with business process diagrams

- **Business Process** – standard method for accomplishing a particular task necessary for an organization to function
- **Business Process Modeling Notation (BPMN)** – method of representing business processes that was established by the Object Modeling Group (OMG)

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3

### Basic Notation (1 of 3)

7C.1 Understand how to represent business processes with business process diagrams

- Four basic concepts of BPMN:
  - **Event** – trigger that initiates the start of a process
    - Represented by an oval
    - Represents the beginning (thin wall) or end (thick wall)
    - Starting event (colored green), ending event (colored red)
  - **Activity** – action that must take place for a process to be completed
    - Represented by a rectangle with rounded edges
    - Can be completed by people or computerized system

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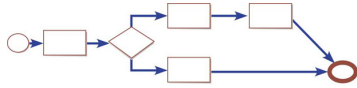
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### Basic Notation (2 of 3)

7C.1 Understand how to represent business processes with business process diagrams

- Four basic concepts of BPMN:
  - **Gateway** – decision point
    - Represented by a diamond shape
  - **Flow** – shows the sequence of action in a process
    - Represented by an arrow
    - Will show the order which activities occur



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### Basic Notation (3 of 3)

7C.1 Understand how to represent business processes with business process diagrams

- There are three different types of gateways in BPMN:
  1. Gateway with an "X" inside is called an exclusive OR gateway (XOR)
  2. Gateway with a "plus" sign inside is called an AND gateway meaning all the paths that follow a gateway can be followed in parallel
  3. Gateway with "O" inside and is called an OR gateway meaning that at least one path out of the gateway must be followed

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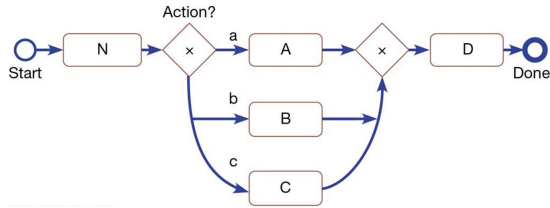
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Figure 7-40: An XOR Gateway



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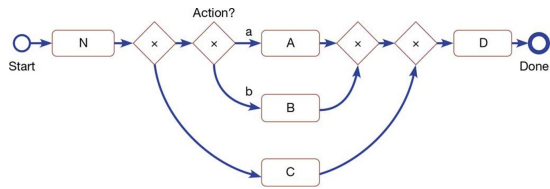
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Figure 7-41: A Process Featuring an AND Gateway and an XOR Gateway



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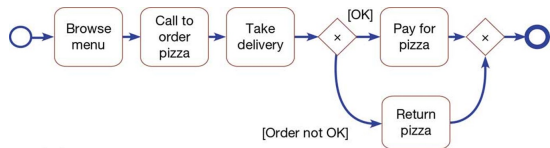
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Figure 7-42: A Simple BPMN Example



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### Flow Notation Variations

7C.1 Understand how to represent business processes with business process diagrams

- There are three variations of flow:
  1. **Flow: sequence** shows the arrow as a sequence
  2. **Flow: default** is shown with a slash line near the beginning representing a default flow usually following a gateway
  3. **Flow: message** is shown with a dotted line beginning with a circle signifying the flow of a message rather than a sequence



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### Swimlane and Pool BPMN

7C.1 Understand how to represent business processes with business process diagrams

- **Swimlane** – way to visually encapsulate a process
- **Pool** – way to encapsulate a process that has two or more participants



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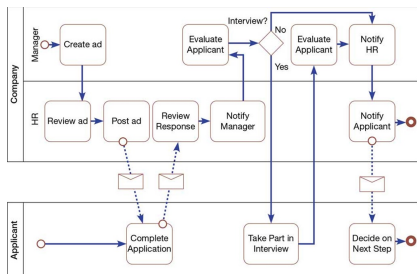
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### Figure 7-43: Depicting a Recruiting Process with BPMN



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### Summary

- In this appendix you learned how to:
  - Understand how to represent business processes with business process diagrams

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