



Modern Systems Analysis and Design

Seventh Edition

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Chapter 7 Appendix B

**Represent System Logic With Activity
Diagrams**



Learning Objectives

- ✓ Understand how to represent system logic with activity diagrams.



Process Modeling: Activity Diagrams

■ Activity Diagrams

- Show the conditional logic for the sequence of system activities needed to accomplish a business process.
- Clearly show parallel and alternative behaviors.
- Can be used to show the logic of a use case.



Use Activity Diagrams to:

- Depict the flow of control from activity to activity.
- Help in use case analysis to understand what actions need to take place.
- Help in identifying extensions in a use case.
- Model work flow and business processes.
- Model the sequential and concurrent steps in a computation process.

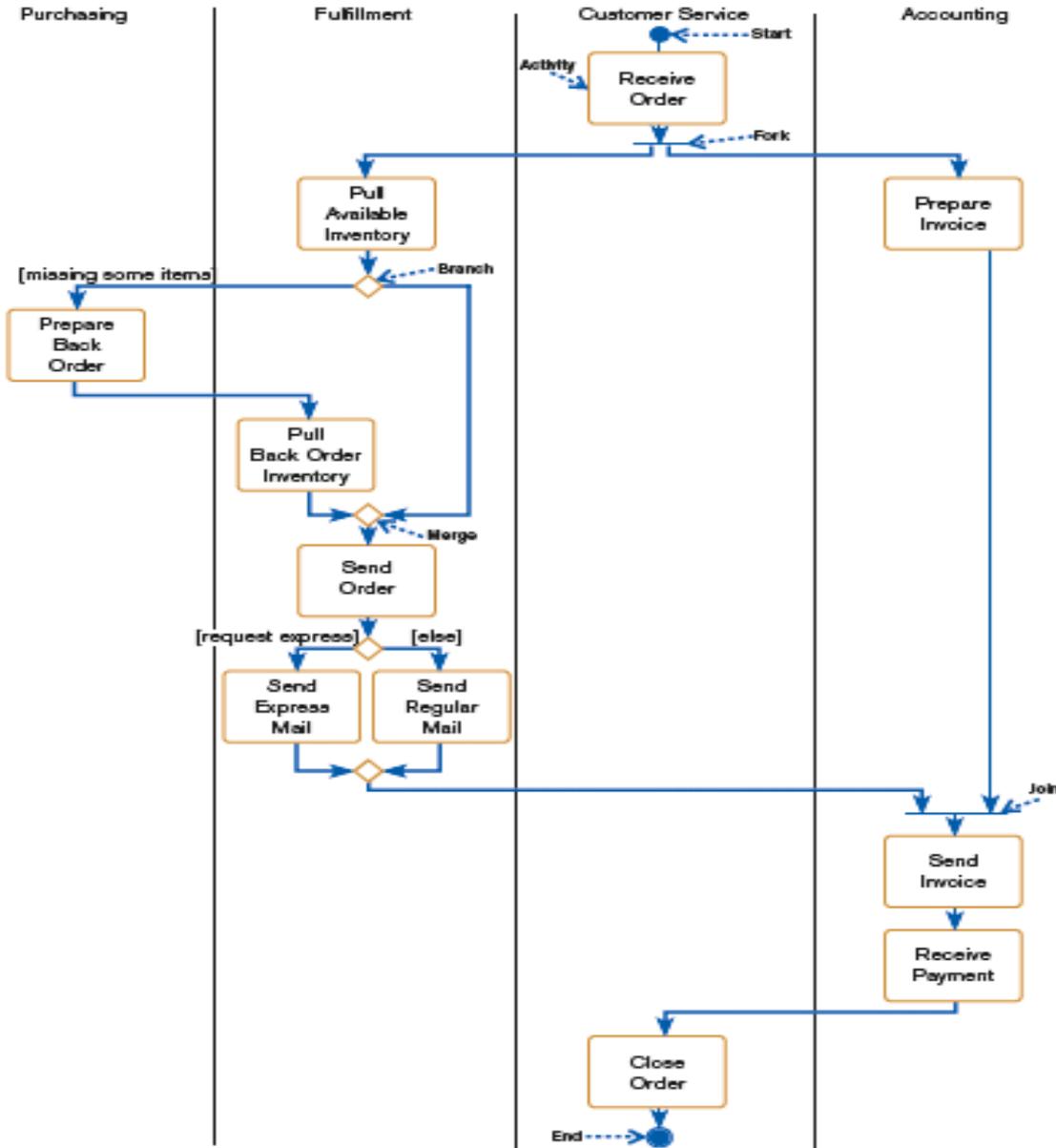


FIGURE 7-36
Activity diagram for a customer order process



Process Modeling: Activity Diagrams (Cont.)

- Elements of Activity Diagrams:
 - **Activity:** a behavior that an object carries out while in a particular state
 - **Branch:** a diamond symbol containing a condition whose results provide transitions to different paths of activities
 - **Merge:** a circular symbol where different paths converge



Process Modeling: Activity Diagrams (Cont.)

- **Fork:** the beginning of parallel activities
- **Join:** the end of parallel activities
- **Swimlanes:** columns representing different organizational units of the system



Summary

- In this appendix you learned how to:
 - ✓ Understand how to represent system logic with activity diagrams.



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