

Information Gathering, Modelling and Workflows



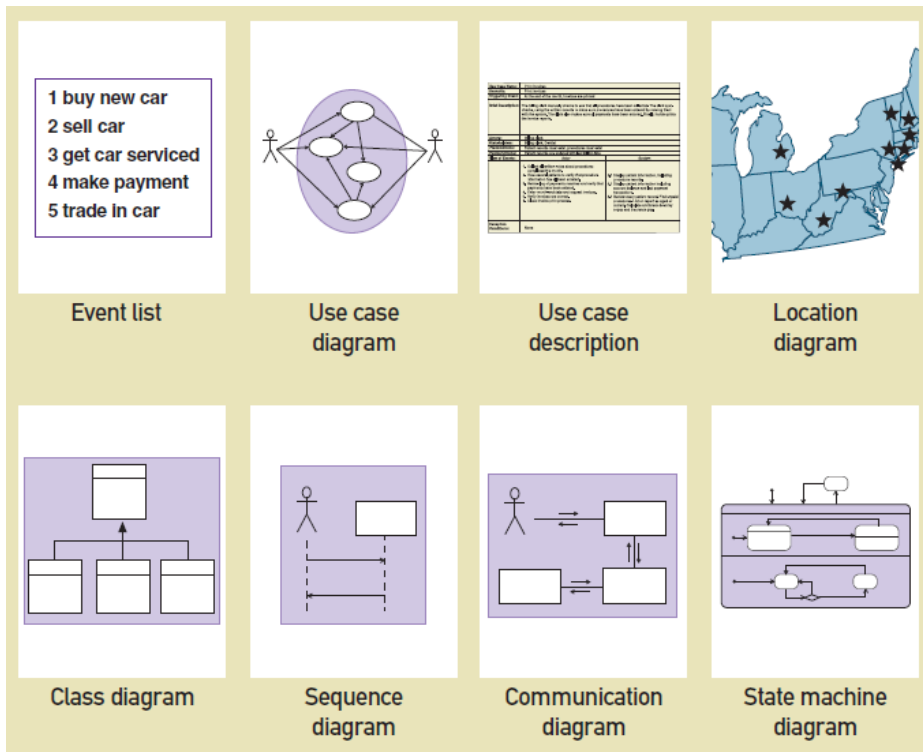
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Models and Modelling

- How do we define requirements?
After collecting information, create models
- Reasons for modelling:
 - Learning from modelling process
 - Reducing complexity by abstraction
 - Remembering all the details
 - Communicating with other development team members
 - Communicating with a variety of users and stakeholders
 - Documenting what was done for future maintenance/enhancement

Some Analysis and Design Models





Models and Modelling

- Model – a representation of some aspect of the system being built
- Types of Models
 - Textual model– something written down, described
 - Graphical models– diagram, schematic
 - Mathematical models– formulas, statistics, algorithms
- Unified Modelling Language (UML)
 - Standard graphical modelling symbols/terminology used for information systems

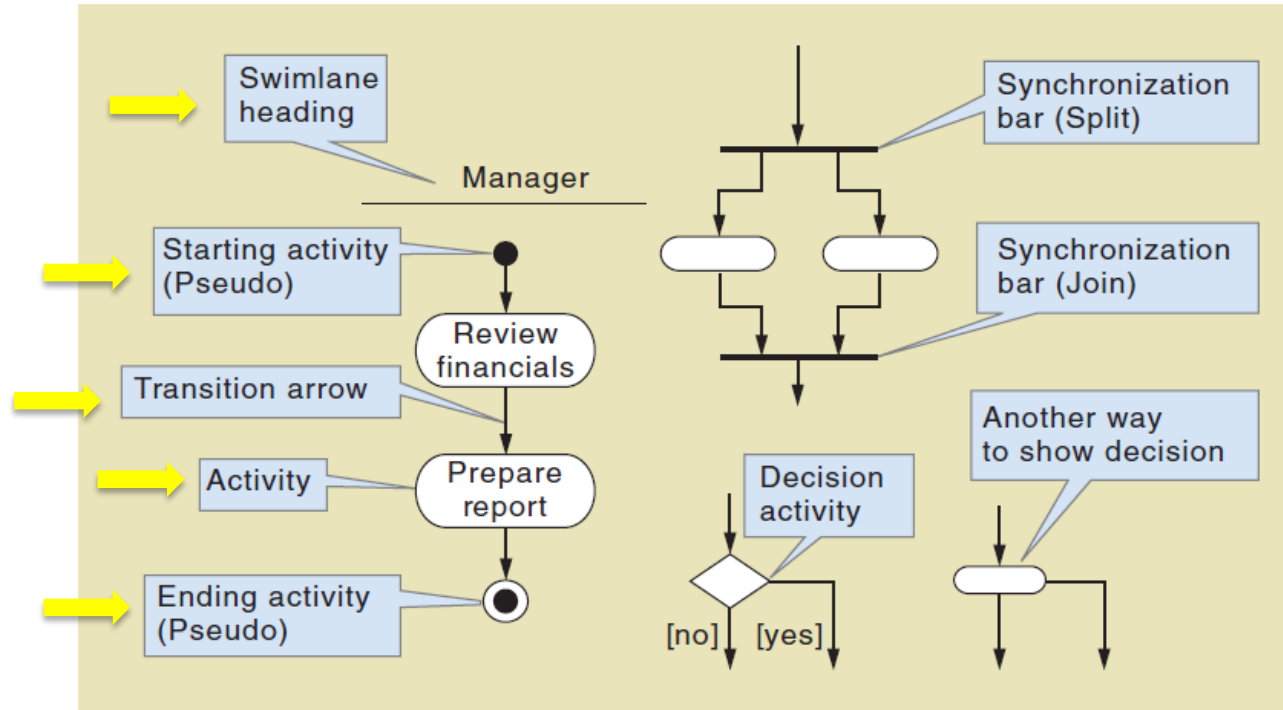


Documenting Workflows with Activity Diagrams

- **Workflow** – sequence of processing steps that completely handles one business transaction or customer request
- **Activity Diagram** – describes user (or system) activities, the person who does each activity, and the sequential flow of these activities
 - Useful for showing a graphical model of a workflow
 - A UML diagram

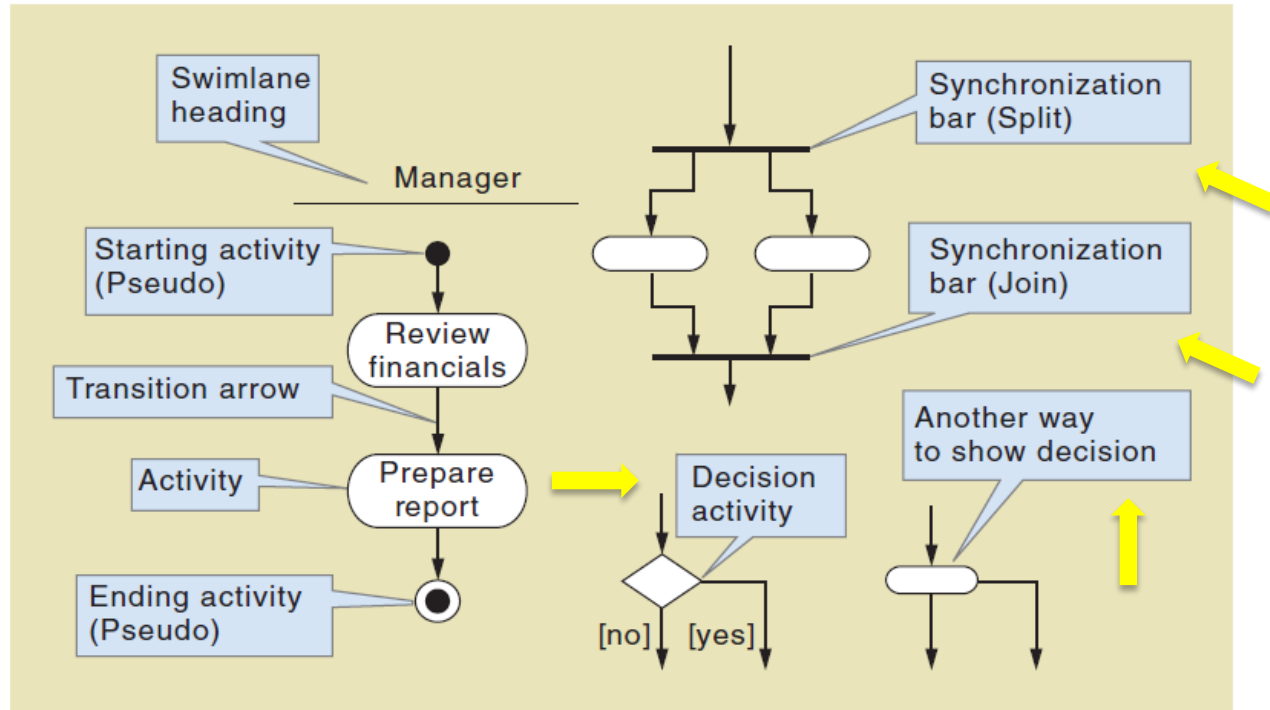


Activity Diagrams Symbols



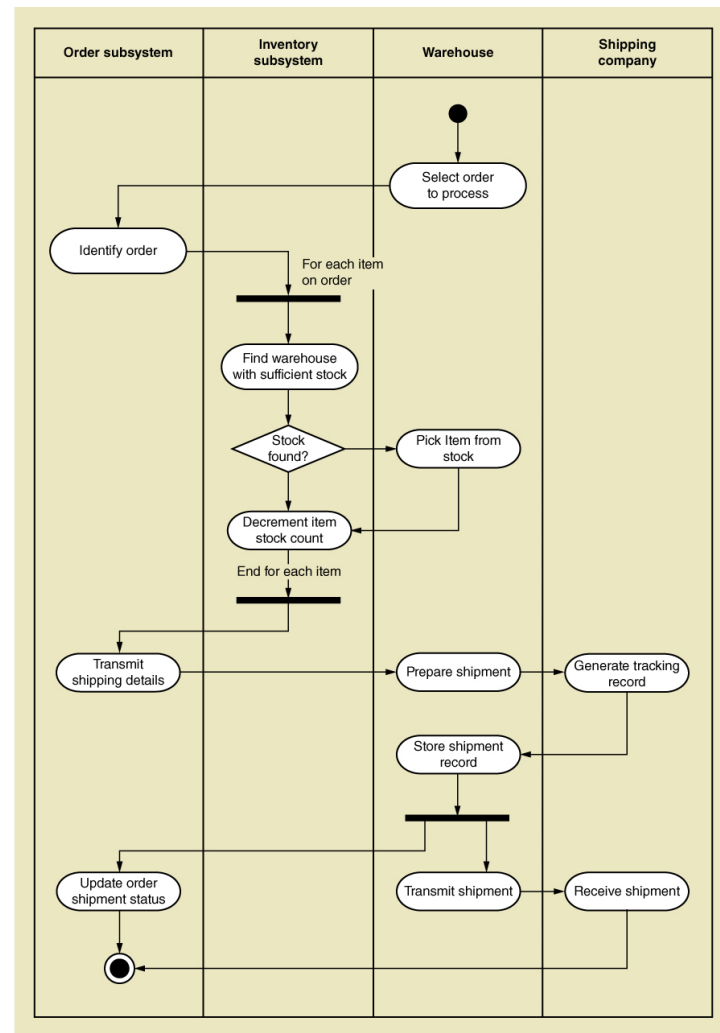


Activity Diagrams Symbols



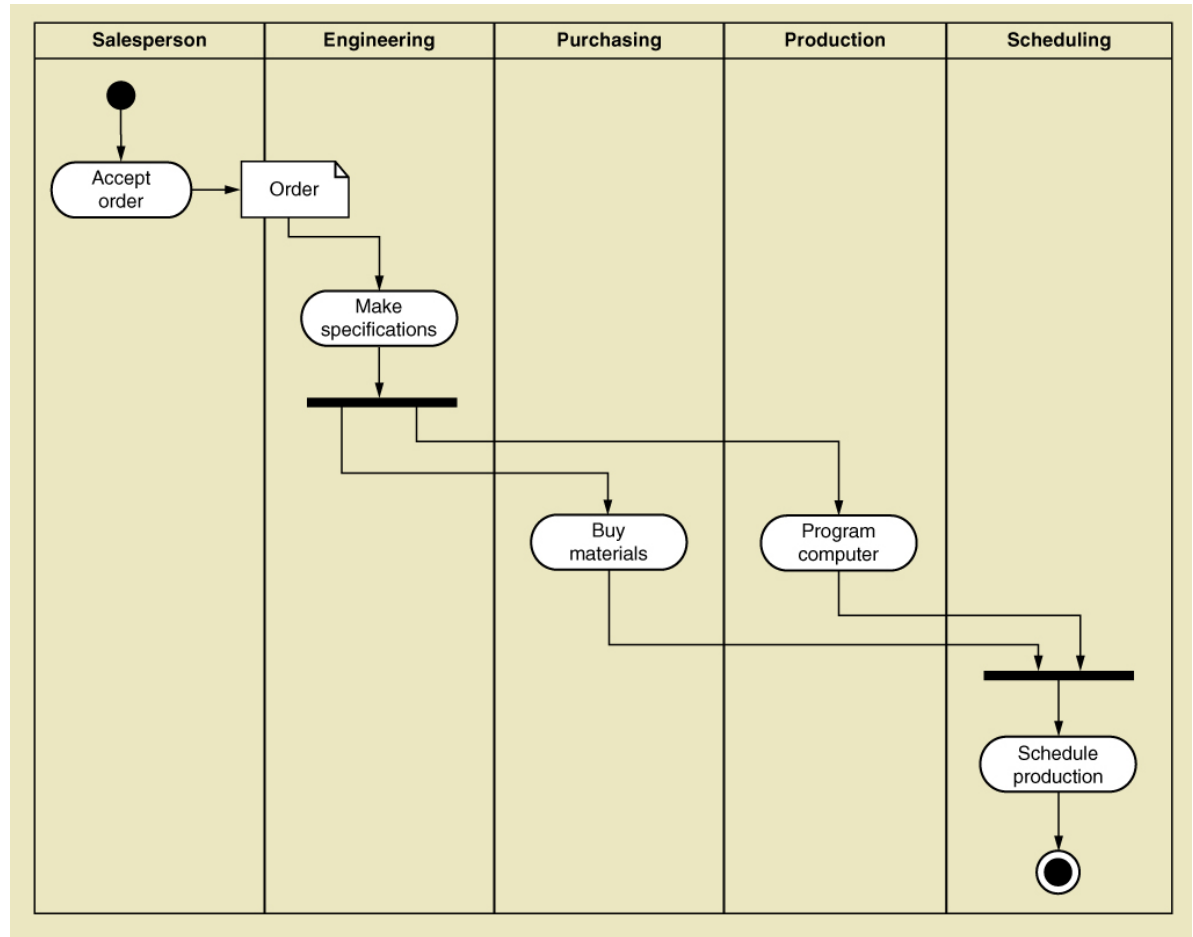


Activity Diagram for RMO Order Fulfillment





Activity Diagram with Concurrent Paths





Documenting Workflows with Activity Diagrams

Steps to develop an activity diagram:

- Identify the agents to create the appropriate swimlanes
- Identify appropriate ovals for the activities in the swimlanes
- Connect the ovals with arrows
- Use decision symbols and synchronisation bars when needed
 - Use a decision symbol to represent an either/or situation—one path or the other path but not both
 - Use synchronization bars for parallel paths—situations in which both paths are taken. Include a beginning and an ending synchronization bar