CO457 Business Modelling

Module Week 14

Producing User Requirements

Converting Business Models into User Requirements

- Change business actors and workers into system actors
- **Find the steps in the business use-case scenarios that can be automated**
- Describe the user interfaces and report layouts
- Model a subset of business objects and relationships for the database
- **Isolate the business rules that apply to the IT system**
- Modify and add supplementary requirements specific to the system

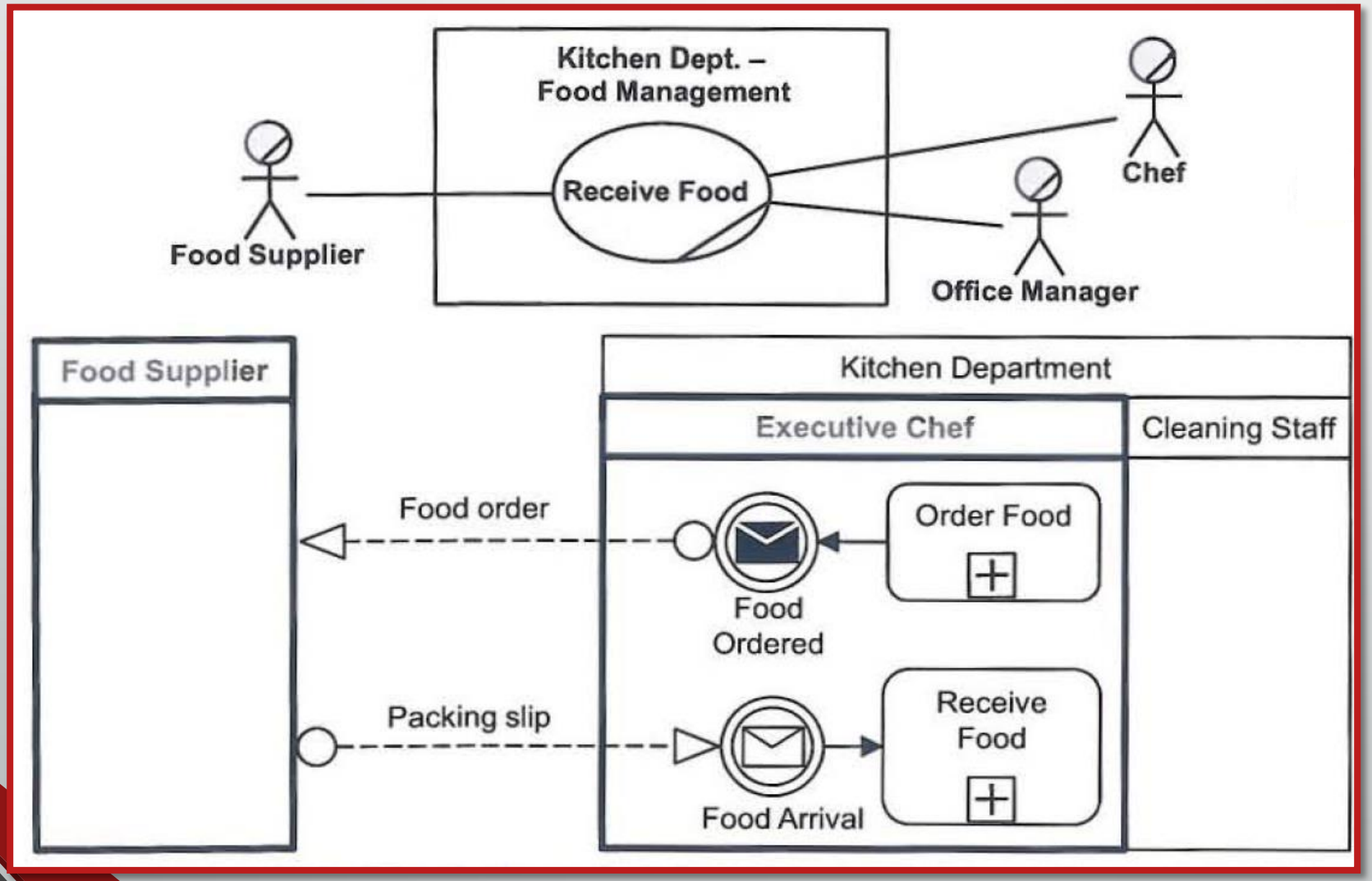
Actors and Workers Become Users

- For example, an IT system for ordering and receiving food
  - The Food Ordering and Receiving System (FORS)
  - Food suppliers will
    - Be notified of food orders by email
    - Access the system via the Internet
- **The subject boundary is the IT system**

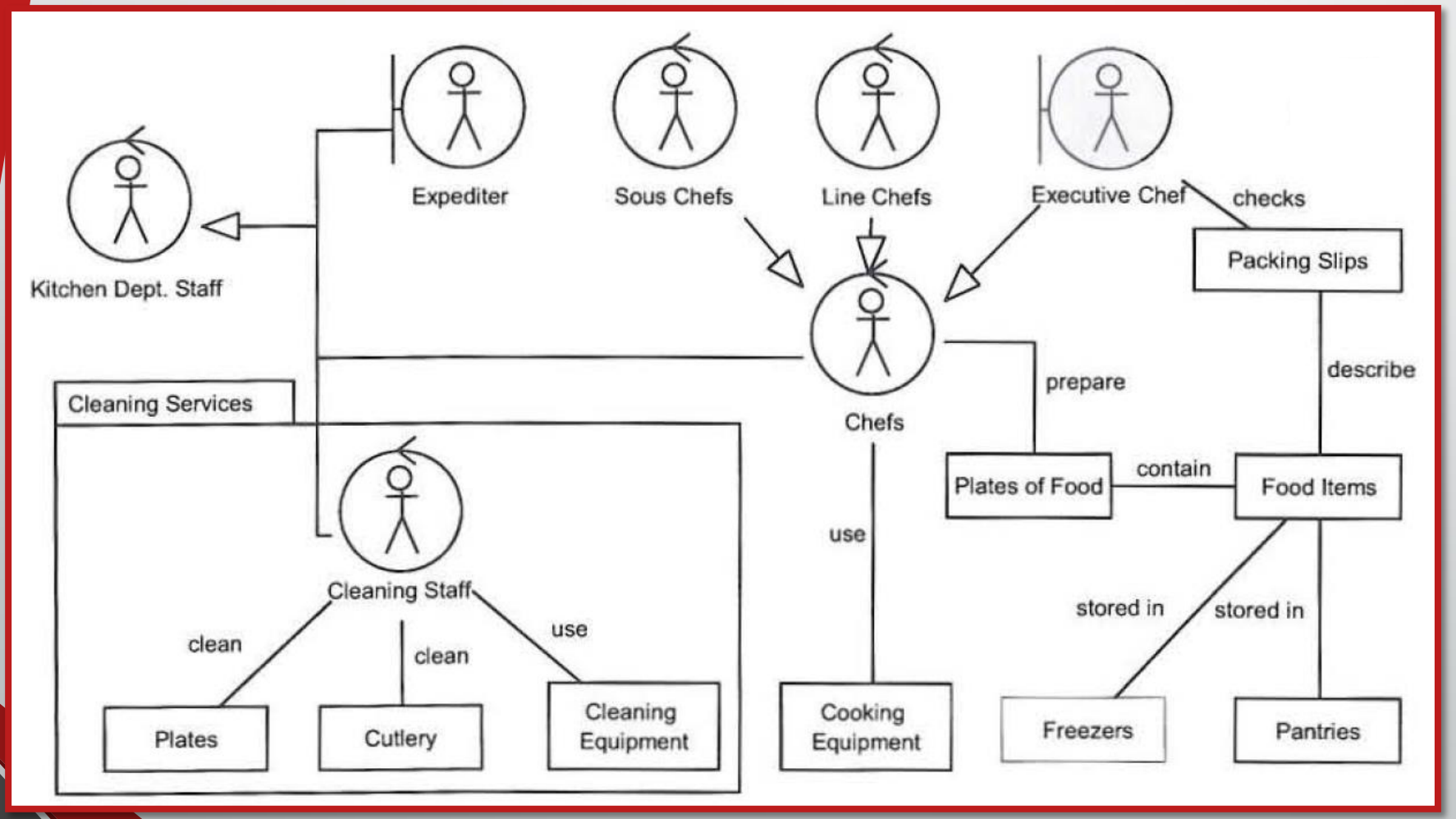
Actors and Workers Become Users

- **System actors are users of the system**
  - Actors on the business use-case model
  - Workers on the business domain model
  - Pools and lanes on the business process diagram
- In FORS, the actors will be
  - Food supplier
  - Executive chef
  - Office manager

Actors and Workers Become Users



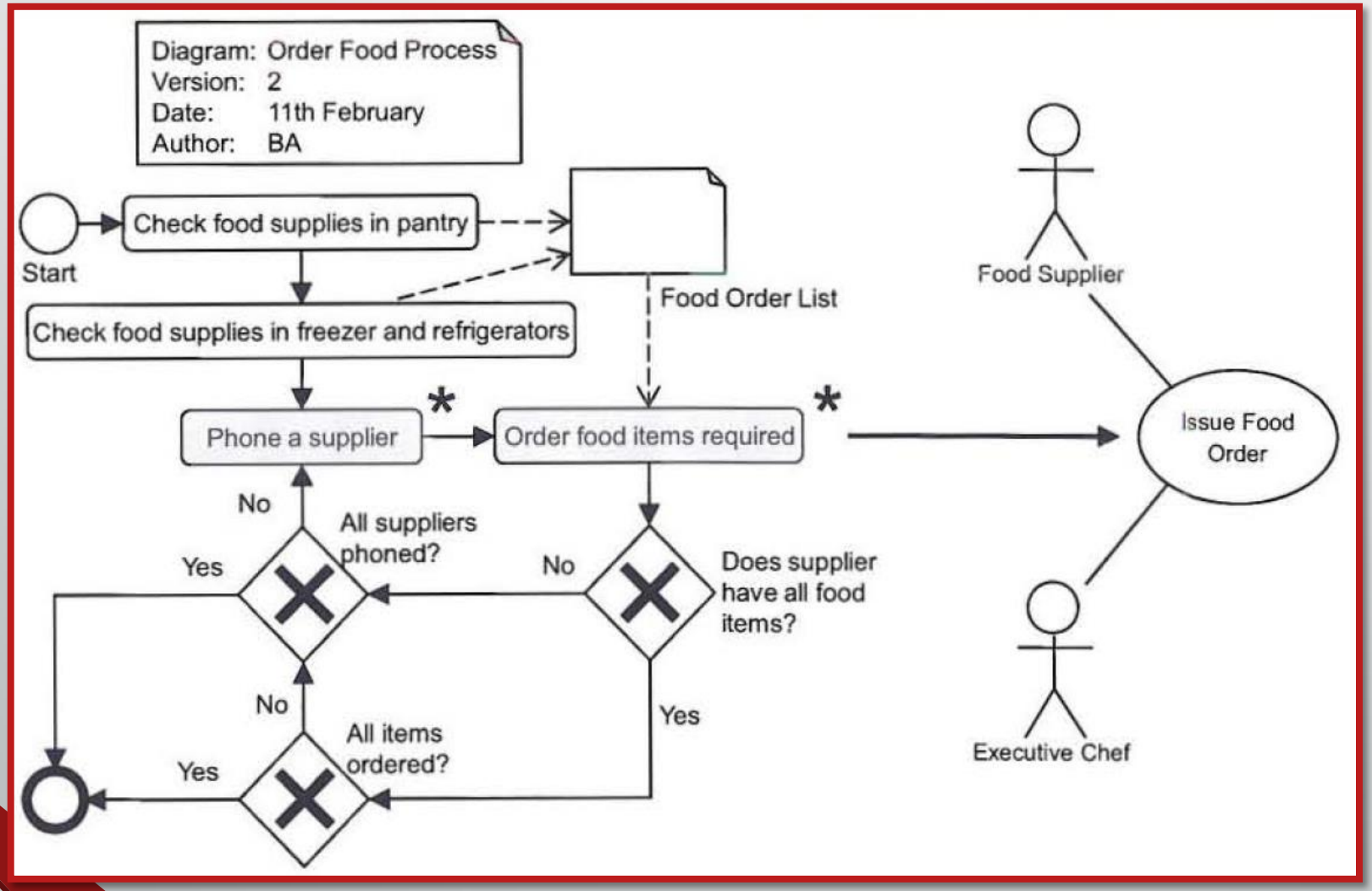
Actors and Workers Become Users



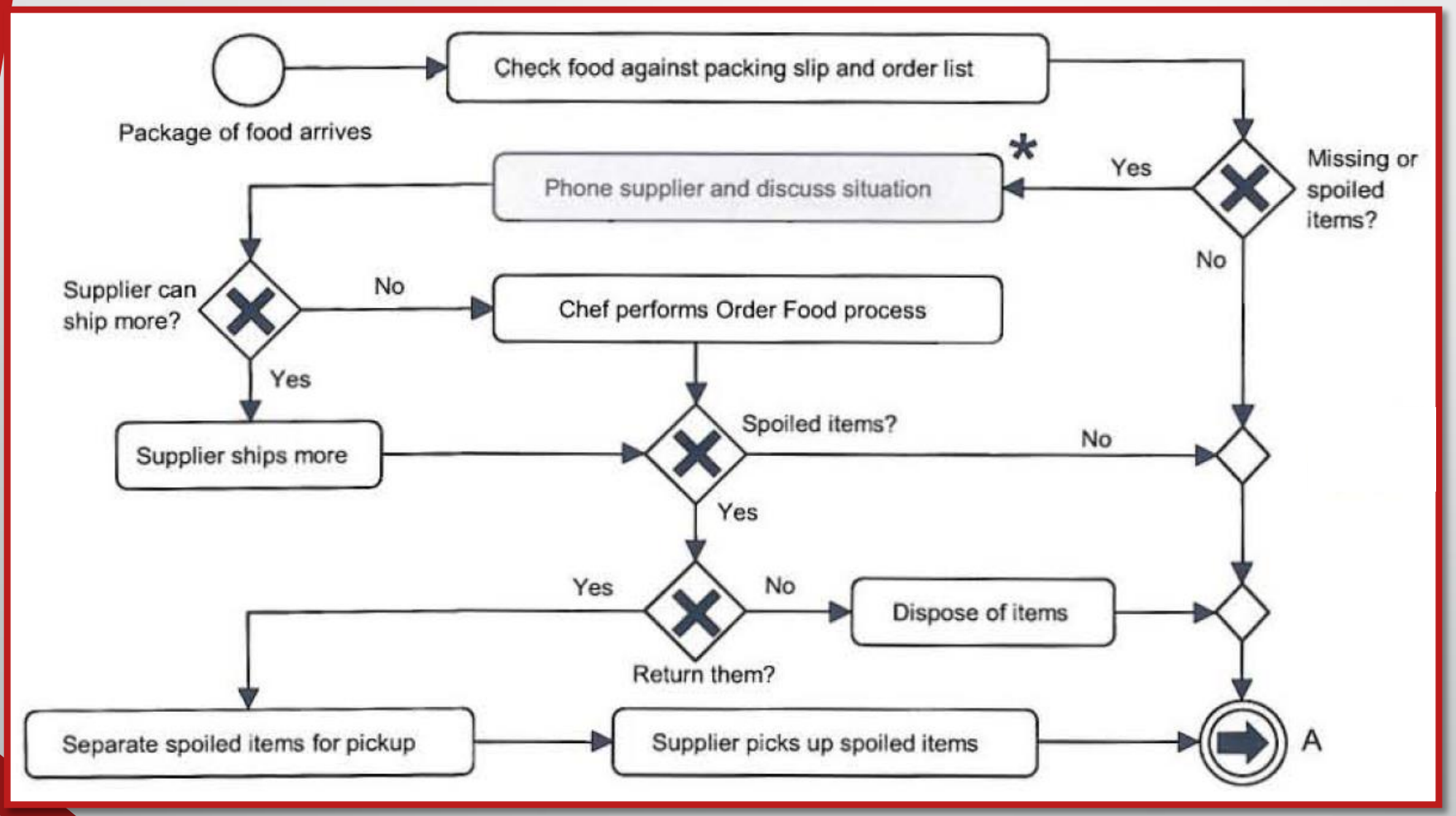
Business Activities Are Automated

- **The activities on the business process diagram that are to be automated become the system use cases**
  - Highlighted with a star on the diagram
  - Other activities remain manual
- Candidate activities for automation in FORS are:
  - Phone a supplier and order food items
    - The system use case would be Issue Food Order
    - Checking food supplies must remain manual
  - Phoning a supplier to discuss received food items
    - The system use case would be Correct Food Items
  - Marking the packing slip and give it to the office manager
    - The system use cases would be Update Packing Slip and Display Packing Slip
- **Each use case will need its scenarios described**

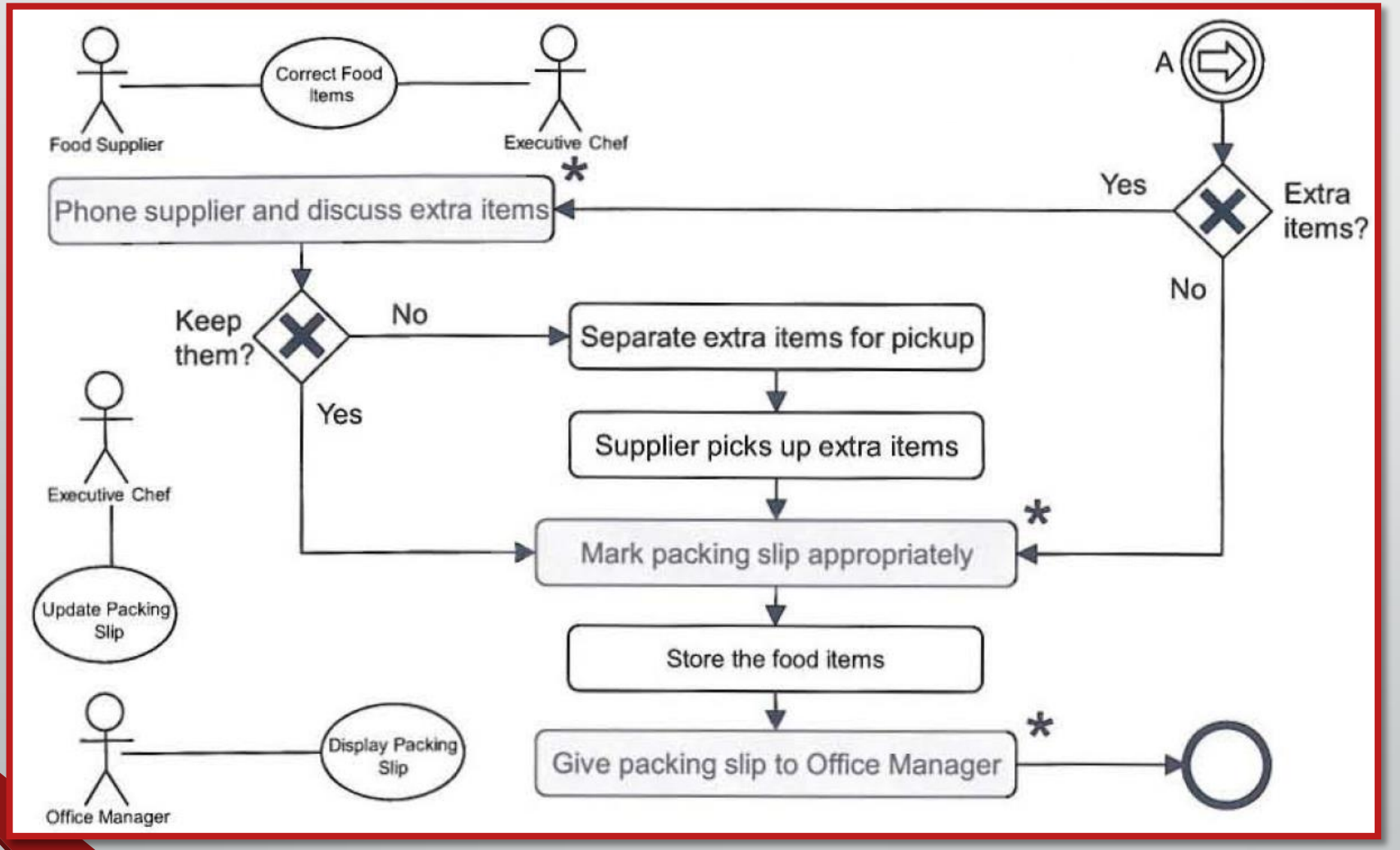
Order Food Process Is Automated



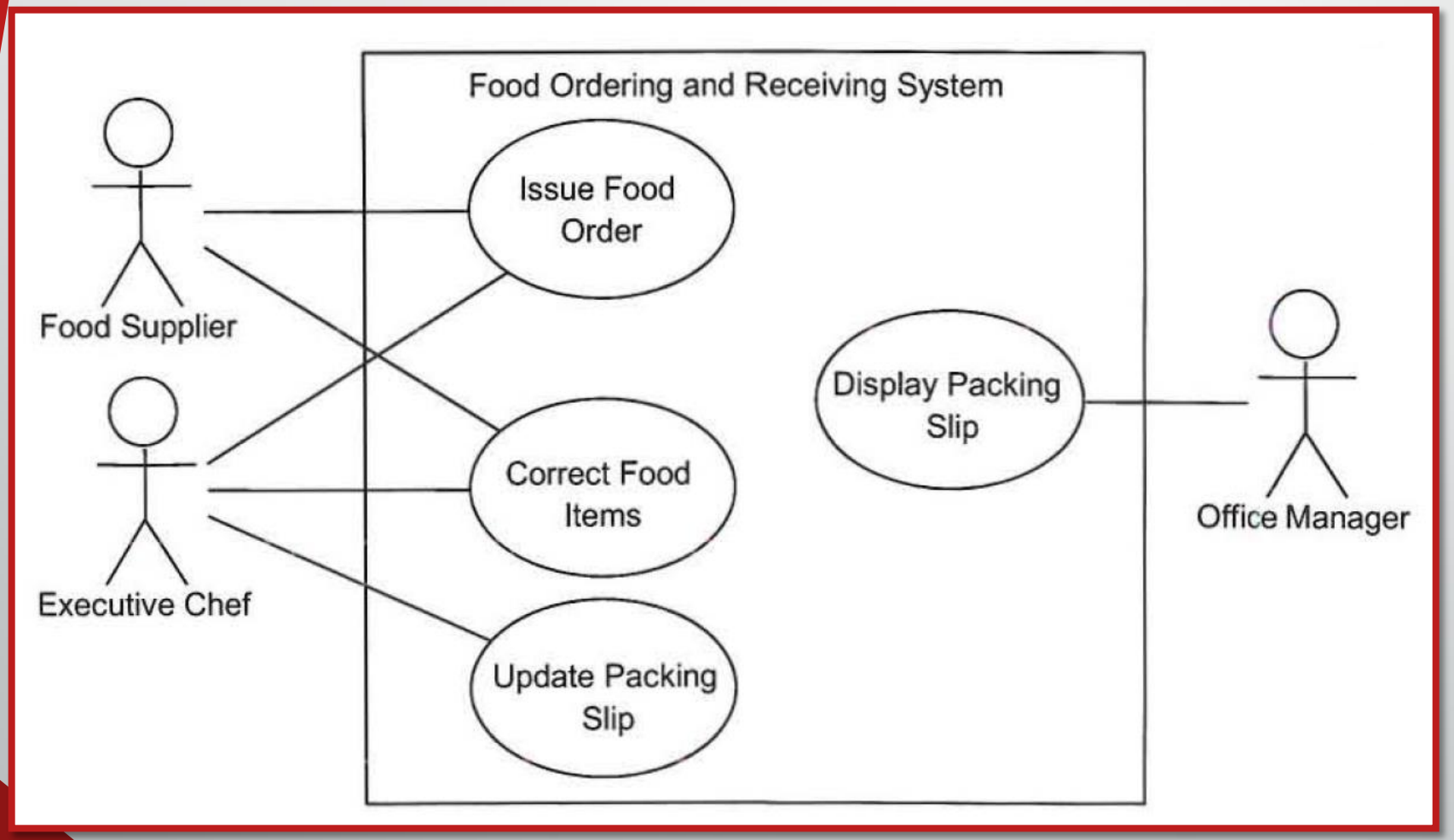
Receive Food Process Is Automated



Receive Food Process Is Automated



The System Use-Case Diagram



Business Interfaces Become User Interfaces

- **Wherever an association crosses the system boundary on the system use-case diagram, a user interface is required**
  - Screen or report layout
- Describe what is on the screen or report
  - **Not how it appears**
    - That's user interface design

Business Interfaces Become User Interfaces

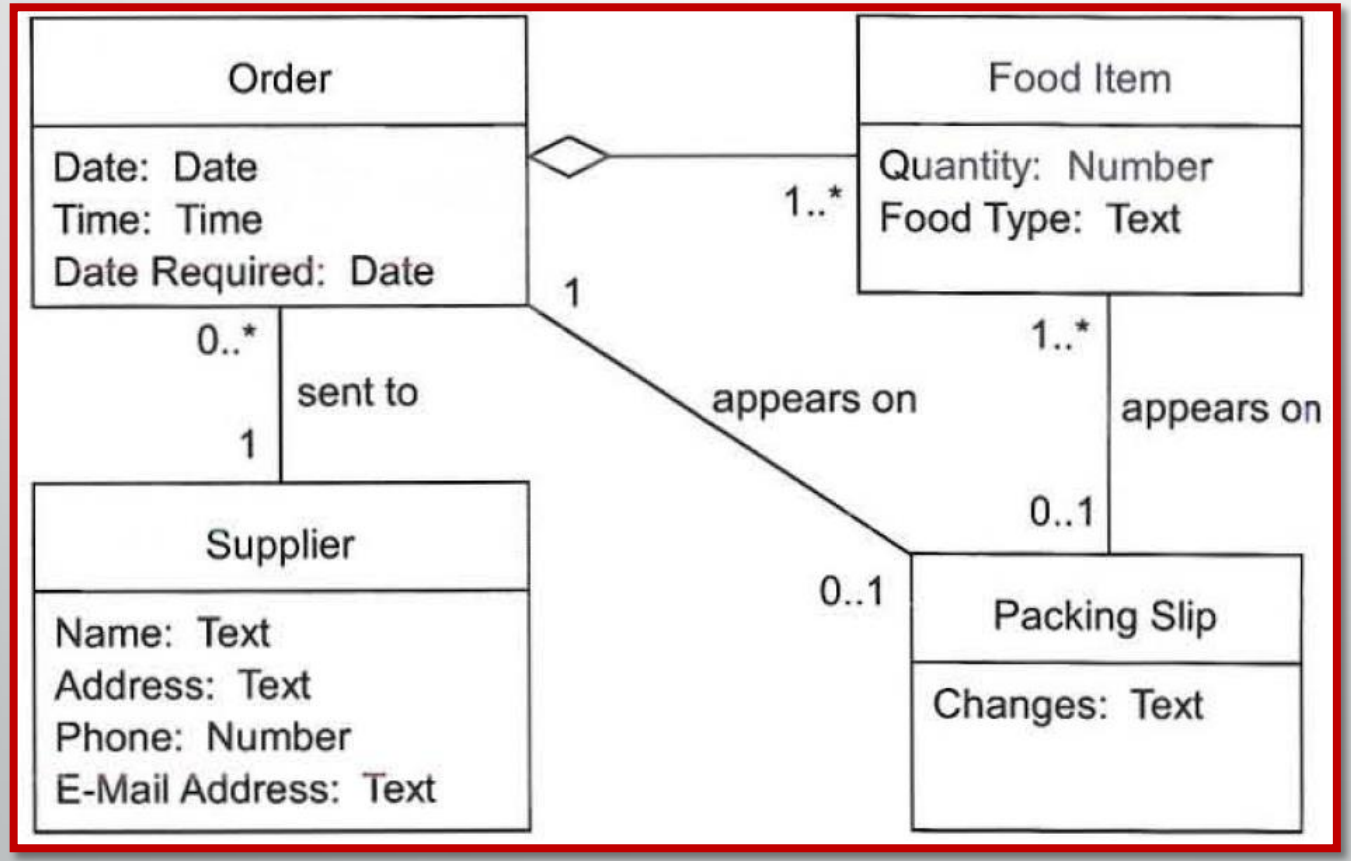
User Interface	Food Order Issue **Screen**
Users	The Executive Chef enters it. The Food Supplier can only read it.
Language	English
Description and/or layout	

Business Interfaces Become User Interfaces

User Interface (continued)	Food Order Issue Screen	
Data items	**Name**	**Mandatory or Optional**
	Date and Time	Mandatory
	Date Required	Mandatory
	Supplier name	Mandatory
	Supplier phone number	Mandatory
	Supplier e-mail address	Mandatory
	List of Food items	Mandatory
	Quantity (for each food item)	Mandatory
Service(s) requested	• Issue this food order to the supplier • Clear entries and reset Date required • Exit the screen	
Business rules	1. Date and Time are read only, set to today's date and time. 2. The Date Required will be set for tomorrow but may be changed. 3. The Supplier phone number and e-mail address are read only and filled in when a supplier is selected from the list. 4. When Issue Order is selected, the order will be e-mailed to the supplier automatically, the order details will be saved and the screen cleared for the next order entry.	

Business Objects Become Data Entities

- A subset of the business domain objects and relationships are to be stored by the IT system



Business Rules Become System Constraints

- **The IT system must conform to any relevant business rules**
  - Missing, extra, and spoiled food items shall be described on the packing slip
  - Only food types sold by a supplier shall be ordered from that supplier
- **Supplementary requirements are needed for the system:**
  - **Security**
    - A user identification mechanism is required such that
    - Only the executive chef shall issue new food orders
    - The sous chef shall correct food items and update packing slips

Business Rules Become System Constraints

- Supplementary requirements are needed for the system:
  - **Operational**
    - The system shall be usable from 6 a.m. to midnight, seven days a week
  - **Response time**
    - Upon issue, a food order shall be processed in less than two seconds 98 percent of the time

Communicating Requirements

Communicating Your Models

- **Know your audience**
- **Decide on the purpose and desired outcome of your presentation or workshop**
  - Obtain strategic awareness
  - Plan the scope of a project
  - Elicit user feedback
    - Second and third iterations
- **Select the correct level of detail**
  - Overview presentation
  - Tactical review
  - Requirements workshop
  - Detailed walkthrough

Communicating Your Models

- **Plan and structure the presentation**
  - Duration
  - Location
  - Team roles
    - Presenter(s)
    - Scribe
  - Which models at what level of detail
  - Equipment
  - Agenda