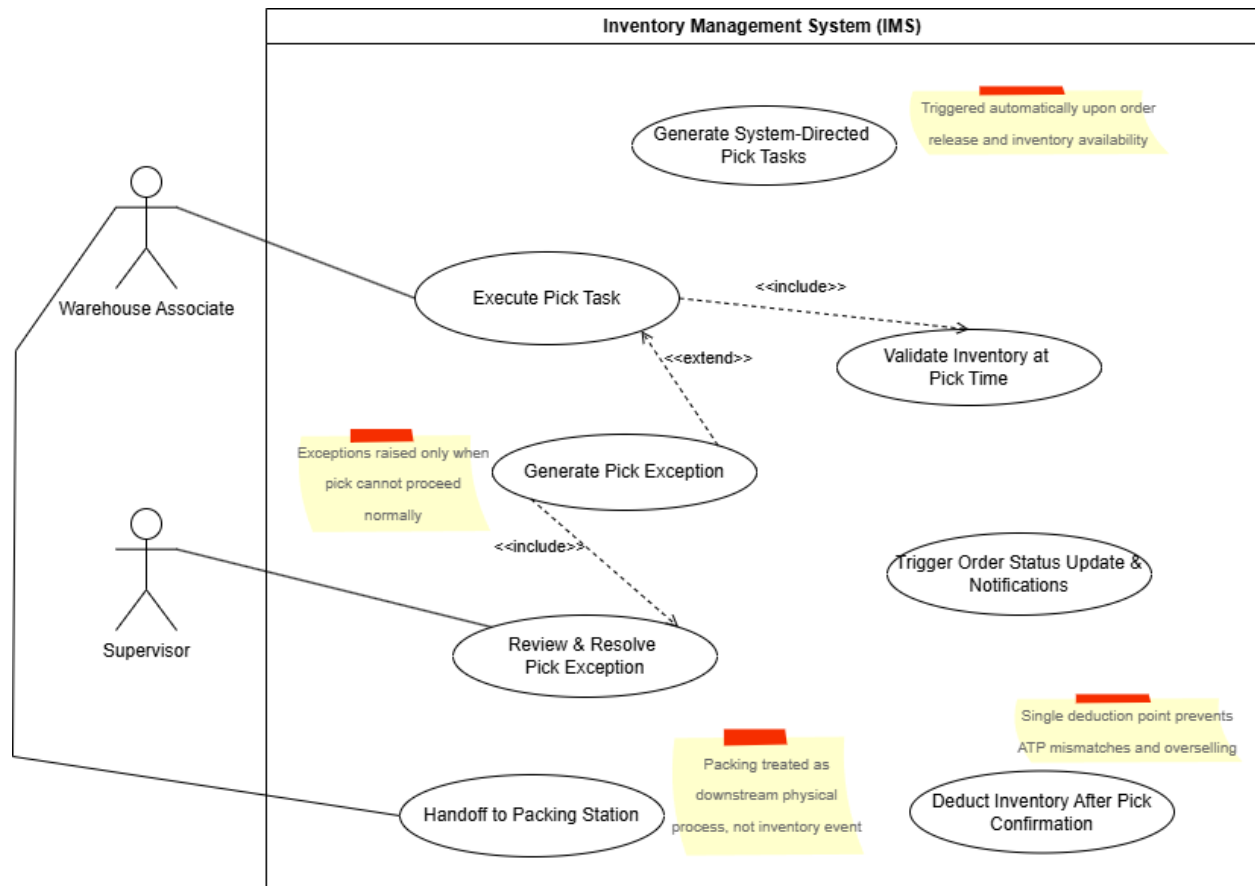


# Use Case Diagram



# Use Case Specifications & Wireframes

## UC-OP-01: Generate System-Directed Pick Tasks

### Primary Actor

IMS

### Brief Description

Create optimized pick tasks for warehouse execution.

### Preconditions

- Customer orders released
- Inventory available in system

### Postconditions

- Pick tasks available to associates

### Main Success Scenario

1. IMS evaluates open orders
2. Determines optimal pick locations
3. Generates pick tasks and queues them

### Business Rules & Notes

- One active pick task per order line
- Tasks prioritized by order SLA

## SYSTEM-DIRECTED ORDER PICKING

Task ID:

[PT-77421]

Order ID:

[ORD-88942]

SKU:

Milk 2L (SKU-060)

Required Qty:

4 units

### Pick Location:

Aisle A | Shelf 03 | Slot 08

Scan Pick Location

Scan SKU

Confirm Pick

### System Message:



Pick confirmed



Inventory deducted

## UC-OP-02: Execute Pick Task

### Primary Actor

Warehouse Associate

### Brief Description

Pick items accurately for customer orders.

### Preconditions

- Pick task assigned and visible

### Postconditions

- Pick completed or exception raised

### Main Success Scenario

1. Associate selects pick task
2. Navigates to pick location
3. Scans location label
4. Picks required quantity
5. Confirms pick

### Alternative Flow

- If quantity unavailable → UC-OP-04

### Business Rules & Notes

- Location scan mandatory
- Partial picks require confirmation

## UC-OP-03: Validate Inventory at Pick Time

### Primary Actor

IMS

### Brief Description

Prevent pick-time errors.

### Preconditions

- Associate submits pick confirmation

### Postconditions

- Pick validated

### Main Success Scenario

1. IMS validates SKU and location
2. Confirms available quantity
3. Approves pick

### Business Rules & Notes

- Validation occurs in real time
- Invalid picks blocked immediately

## UC-OP-04: Generate Pick Exception

### Primary Actor

IMS

### Brief Description

Capture and escalate pick issues.

### Preconditions

- Pick validation fails

### Postconditions

- Exception recorded

### Main Success Scenario

1. IMS creates pick exception
2. Logs exception reason
3. Flags order for follow-up

### Business Rules & Notes

- Exceptions do not auto-adjust inventory
- Replenishment may be triggered separately

## UC-RP-05: Review & Resolve Pick Exception

### Primary Actor

Warehouse Supervisor

### Brief Description

Resolve Picking exception issues efficiently.

### Preconditions

- Exception generated

### Postconditions

- Exception resolved

### Main Success Scenario

1. Supervisor reviews exception
2. Approves adjustment, reroutes task, or rejects
3. Confirms resolution

### Business Rules & Notes

- Supervisor approval required
- All actions audit logged

PICKING EXCEPTION REVIEW

Exception ID:  
[OP-EX-3021]

Order ID:  
ORD-88942

SKU ID	REQUIRED QTY	AVAILABLE QTY	VARIANCE
SKU-060	68	52	-2

Reason (Auto-Detected):

!

Quantity mismatch

Suggested Actions:

☐ Short Pick Allowed

☐ Trigger Replenishment

☐ Reassign Order

Supervisor Notes:

Confirm Action



## UC-OP-06: Auto-Deduct Inventory After Pick Completion

### Primary Actor

IMS

### Brief Description

Ensure accurate inventory deduction.

### Preconditions

- Pick validated successfully

### Postconditions

- Inventory updated

### Main Success Scenario

1. IMS deducts QOH
2. Recalculates ATP
3. Records transaction

### Business Rules & Notes

- Single deduction point only
- No deduction at packing

## UC-OP-07: Handoff to Packing Station

### Primary Actor

Warehouse Associate

### Brief Description

Move picked items to packing.

### Preconditions

- Pick completed

### Postconditions

- Order ready for packing

### Main Success Scenario

4. Associate transfers items to packing area
5. Marks task as handed off

### Business Rules & Notes

- Packing does not revalidate inventory

## UC-OP-08: Trigger Order Status Update & Notifications

### Primary Actor

IMS

### Brief Description

Keep order flow synchronized.

### Preconditions

- Inventory deduction completed

### Postconditions

- Order visible as ready for dispatch

### Main Success Scenario

1. IMS updates order status
2. Notifies downstream systems

### Business Rules & Notes

- Notifications are asynchronous
- Failure does not block order flow