

Warehouse Management System
5448 Project. Part 2 Individual

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Requirements

I have use cases 8, 10, 11, and 12. The table below shows a mapping from the use case to the requirements they cover. "U" requirements are the functionality requirements and "S" requirements are the stretch requirements.

Use Case	Requirements
UC-08: Fetch Product from Shelves	U-01, U-03, U-04, U-24, U-26, U-29, U-30, U-31, and U-49
UC-10: Place Order	S-04, S-05, S-06, S-08, S-09, S-10, S-11
UC-11: Edit Order	S-04, S-05, S-06, S-12
UC-12: Cancel Order	S-04, S-05, S-06, S-12

Use Cases

Use Case 08

Use Case ID:	UC-08
Use Case Name:	Fetch Product from Shelves
Description:	The Management System is notified of an order and a Retrieval Robot is sent to move the product from the shelf to the Packing Center.

Actors:	Packing Center, Retrieval Robot, Order System		
Pre-conditions:	An order is placed in the Order System. Order System divides orders into products and quantities. Product must be in stock. At least one Retrieval Robot must be idle.		
Post-conditions:	The correct quantity of the product is in the Packing Center awaiting shipment.		
Frequency of Use:	Potentially non-stop.		
Flow of Events:		Actor Action	System Response
	1	Order System notifies Management System of product and quantity to move.	System alerts the RetBot of the product and quantity. System updates UI to show RetBot is Busy.
	2	RetBot notifies System and Packing Center that product has been moved.	System updates the UI to show that RetBot is idle. System updates model and database with new inventory count.
	3	Packing Center makes product ready for shipment, then ships product.	
Variations:	2. If a RetBot Failure occurs the Warehouse Manager is notified.		
Exceptions:	Location of the product is inconsistent with the database; Inventory Manager notified.		
Developer Notes:	None		

Use Case 10

Use Case ID:	UC-10
Use Case Name:	Place Order
Description:	Customer or Customer Service Rep places an order.

Actors:	Customer, Customer Service Rep		
Pre-conditions:	Order System knows quantity of in-stock products.		
Post-conditions:	The order is divided up into products and quantities which are sent to the Management System for filling.		
Frequency of Use:	Potentially non-stop.		
Flow of Events:		Actor Action	System Response
	1	Customer or Customer Service Rep places an order of products and quantities.	System notifies Customer if the order is currently in-stock. If in-stock order is sent to the Management System. If not the Customer is notified that product is out-of-stock.
Variations:	None		
Exceptions:	None		
Developer Notes:	None		

Use Case 11

Use Case ID:	UC-11
Use Case Name:	Edit Order.
Description:	After a customer order has been placed a Customer Service Rep can edit the order.

Actors:	Customer Service Rep		
Pre-conditions:	A customer has placed an order and products have yet to be shipped. The customer has alerted the Rep of an order change.		
Post-conditions:	Order edited and customer notified.		
Frequency of Use:	Potentially after every order.		
Flow of Events:		Actor Action	System Response
	1	Customer Service Rep edits an order in the Order System.	System notifies Rep if it is too late and the product has already shipped. If not too late, the system sends updated order to the Management System.
Variations:	None		
Exceptions:	None		
Developer Notes:	None		

Use Case 12

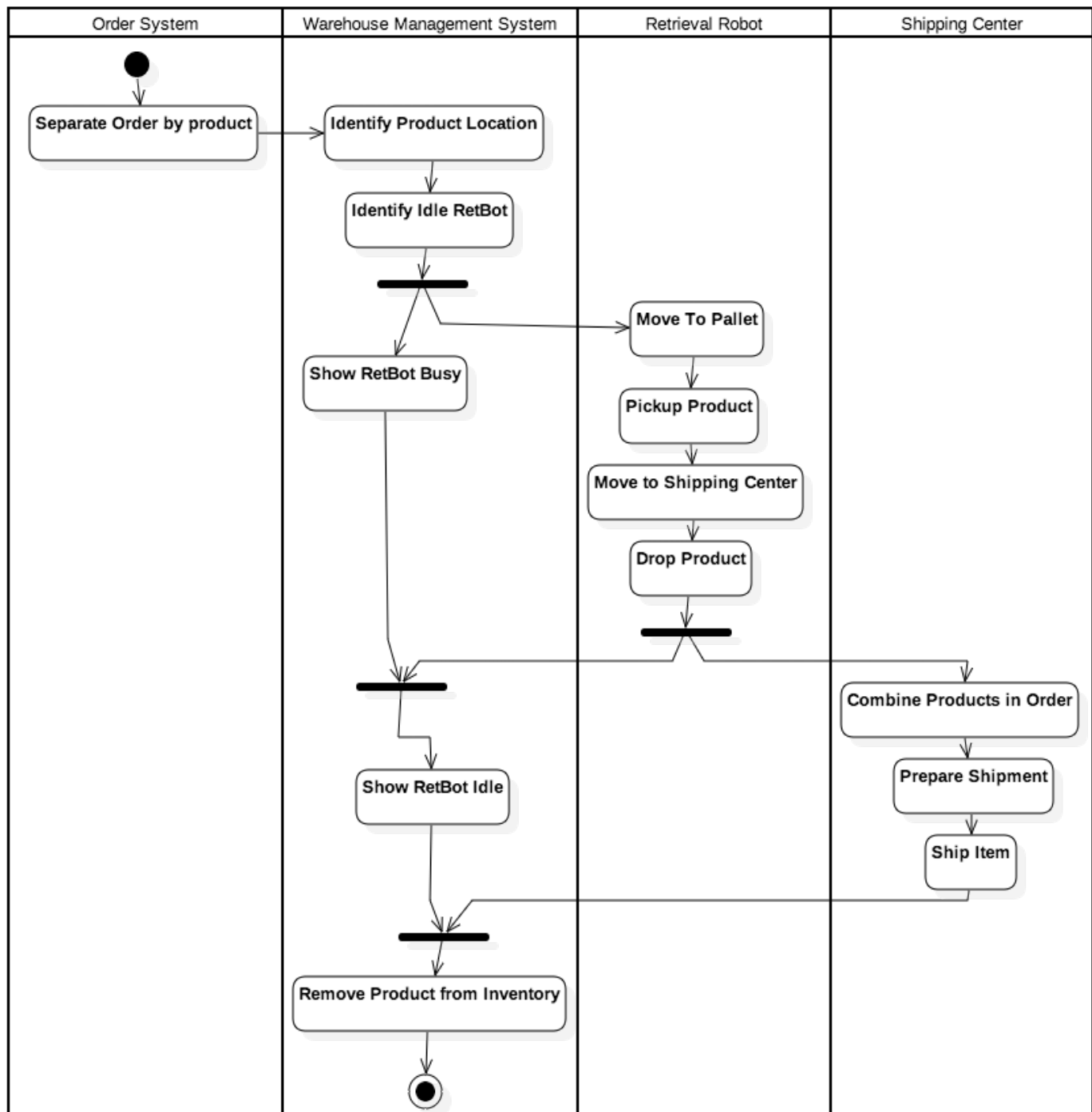
Use Case ID:	UC-12
Use Case Name:	Cancel Order
Description:	After a customer order has been placed a Customer Service Rep can cancel the order.

Actors:	Customer Service Rep		
Pre-conditions:	A customer has placed an order and products have yet to be shipped. The customer has alerted the Rep that they wish to cancel the order.		
Post-conditions:	Order is returned to shelves and the customer is notified.		
Frequency of Use:	Potentially after every order.		
Flow of Events:		Actor Action	System Response
	1	Customer Service Rep cancels the order in the Order System.	System notifies Rep if it is too late and the product has already shipped. If not too late, the system sends cancel notification to the Management System.
Variations:	None		
Exceptions:	None		
Developer Notes:	None		

Activity Diagram

Use Case 08, Fetch Product from Shelf

Requirements: U-01, U-03, U-04, U-24, U-26, U-29, U-30, U-31, and U-49



Sequence Diagram

Use Case 08, Fetch Product from Shelf

Requirements: U-01, U-03, U-04, U-24, U-26, U-29, U-30, U-31, and U-49

