UC Name	Customer Notification System			
Summary	Informing customers about stock availability status.			
Dependency	Derived from Real-Time Inventory Management.			
Actors	Customers, System.			
Preconditions	 Real-Time Inventory Management system is active and accurately tracking inventory. Stable network infrastructure for reliable communication. Defined notification mechanisms such as email or SMS. 			
Description of the Main Sequence	1. Monitoring Inventory Changes: - The system continuously monitors stock levels in real-time. - Detects changes such as items going out of stock or being restocked. 2. Customer Notification: - When an item goes out of stock, the system triggers a notification process. - Sends notifications to customers via predefined channels (e.g., email, SMS). - Notifications include information on the unavailability of items and expected restock dates. 3. Providing Information for Informed Decisions: - Customers receive notifications promptly, enabling them to make informed purchasing decisions. - Options for pre-orders or back-orders are provided if available.			
Description of the Alternative Sequence	 Failure in Notification Transmission: If there's a failure in transmitting notifications (e.g., network issues): The system activates error handling procedures to address the transmission failure. Attempts to resend notifications or use alternative communication channels. 			
Nonfunctional requirements	Non-functional Requirements: - Notification Delivery Speed: Ensure notifications are delivered promptly Notification Accuracy: Ensure notifications contain accurate information Notification Channel Reliability: Ensure reliability of communication channels.			
Postconditions	Customers are informed about stock availability status accurately and promptly, facilitating informed purchasing decisions.			