UC Name	*Supplier Communication Integration*
Summary	Facilitating communication between the e-commerce platform and suppliers regarding stock availability and replenishment.
Dependency	*Derived from Real-Time Inventory Management.*
Actors	Suppliers/Administrators/Managers
Preconditions	- Real-Time Inventory Management system is active and accurately tracking inventory. - Stable network infrastructure for reliable communication. - Defined communication channels established between the e-commerce platform and suppliers (e.g., email, API).

Description of the Main Sequence	**1. Detection of Inventory Needs:**
	  - The system detects inventory needs based on real-time stock levels and customer demand.
	  - Identifies items that are out of stock or running low.
	
	2. Notification to Suppliers:
	  - Upon detecting inventory needs, the system triggers notifications to suppliers.
	  - Notifications include details such as the items needing restocking, quantities required, and urgency.
	
	3. Supplier Response:
	  - Suppliers receive notifications through predefined communication channels (e.g., email, API).
	  - Suppliers provide information on restocking availability, quantities, and delivery schedules.
	
	4. Inventory Update:
	  - The system updates inventory status based on information provided by suppliers.
	  - Reflects expected availability dates, quantities, and delivery schedules for restocked items.

Description of the Alternative Sequence	*1. Failure in Supplier Communication:*
	  - If there's a failure in communicating with suppliers (e.g., network issues):
	  - The system activates error handling procedures to address the communication failure.
	  - Attempts to resend notifications or use alternative communication channels.

Nonfunctional requirements	*- Communication Reliability: Ensure reliable communication channels with suppliers.* *- Timeliness: Ensure timely communication to minimize stockouts and delays.* *- Data Security: Ensure secure transmission of sensitive inventory information.*

Postconditions	*Suppliers are informed about inventory needs accurately and promptly, facilitating timely replenishment and ensuring optimal stock levels for customers.*