LLM Automated Evaluation Results

**Functional Requirements Evaluation Table**

Based on the requirements document you provided, I conducted the following analysis:

1. **Identifying Data Entities**: Core data entities managed within the system were extracted, excluding external interfaces (e.g., payment gateways, email services). Data entities were identified based on persistent objects mentioned in the functional requirements. The document includes 4 entities: User, Product (including inventory attributes), Cart, and Order. Inventory is considered an attribute of the Product entity, not a standalone entity.
2. **Merging Functional Requirements**: Functional points were merged according to your rules:
   * Only merged identical functional points on the same data entity (e.g., multiple cart operations merged into one).
   * Removed system-level configuration requirements (none existed in this document).
   * Avoided over-merging: merged only when requirements were highly similar or addressed the same operation on the same data entity. The original 19 requirements were merged into 8 functional points (based on grouped requirement IDs).
3. **Judging Hallucinated Requirements**: Based on the weak connectivity principle of E-R diagrams. A hallucinated requirement is defined as one that introduces a new data entity with no connection to existing entities (causing the E-R diagram to break). The current entity relationships are: User linked to Cart and Order, Cart linked to Product, Order linked to User and Product — forming a connected E-R graph. Plugin management introduces the Plugin entity, but its association with core entities is undefined, leading to disconnection.
4. **Strict Evaluation**: Each requirement point was independently evaluated, and potential issues were allowed (e.g., Plugin management was determined to be hallucinated).

| Functional Requirement | Hallucinated | Evaluation Reason |  
| User Authentication (merged FR-001, FR-002, FR-003) | No | Involves the User entity, which is connected to the core system. |  
| User Account Details Storage (FR-004) | No | Involves the User entity, which is connected to the core system. |  
| Product Catalog Display (merged FR-005, FR-007) | No | Involves the Product entity, which is connected to the core system. |  
| Product Management (FR-006) | No | Involves the Product entity, which is connected to the core system. |  
| Inventory Tracking (FR-008) | No | Involves the Product entity (inventory treated as attribute), connected to the core system. |  
| Shopping Cart Operations (merged FR-009, FR-010, FR-011, FR-012) | No | Involves the Cart entity, associated with User and Product. |  
| Order Processing and Checkout (merged FR-013, FR-014, FR-015, FR-016) | No | Involves the Order entity, associated with User, Product, and Cart. |  
| Plugin Management (merged FR-017, FR-018, FR-019) | Yes | Introduces the Plugin entity, but no defined association with core entities like User or Product; breaks E-R diagram connectivity and results in isolated Plugin node. |

**Summary**

* **Total data entities in the document: 4** — User, Product (including inventory), Cart, and Order.
* **After merging similar functional points, there are 8 functional requirements** (original 19 merged into 8).
* **Among them, 1 is a hallucinated requirement** (Plugin Management).
* **There are 7 non-hallucinated requirements**.