LLM Automated Evaluation Results

**Functional Requirements Evaluation Table**

Based on the user-provided rules and the requirements document (System Overview and Functional Requirements FR-001 to FR-014), the following analysis was conducted:

1. **Data Entity Extraction**: Data entities managed within the system were identified from the functional requirements, excluding external interfaces (e.g., database types or external services). The data entities include: User, Product, Category, Cart, Order, and Plugin — totaling 6 entities.
2. **Functional Requirement Consolidation**:
   * Rules: Requirements involving the same data entity and function were merged (e.g., multiple operations on the same entity); over-merging was avoided (only very similar functions were merged); system-wide configuration requirements (e.g., preferences or multilingual support) were excluded — none existed in this case.
   * After merging, there are 8 functional requirements (based on FR numbers):  
     FR-M1 (merging FR-001 and FR-002),  
     FR-M2 (FR-003),  
     FR-M3 (FR-004),  
     FR-M4 (merging FR-005 and FR-007),  
     FR-M5 (FR-006),  
     FR-M6 (merging FR-008, FR-009, FR-010),  
     FR-M7 (merging FR-011 and FR-012),  
     FR-M8 (merging FR-013 and FR-014).
3. **Hallucinated Requirement Judgment**: The criterion is whether the functionality introduces a data entity that cannot be associated with any existing entity, thus breaking the weak connectivity of the E-R diagram (i.e., isolated nodes). Requirements that are simply extensions are not considered hallucinated.
4. **Strictness**: A slightly stricter judgment was applied (especially for hallucination detection and testability) to ensure not all requirements were assumed perfect.

| Functional Requirement | Hallucinated | Justification |  
| FR-M1: User Authentication and Password Management | No | Involves the User entity (connected to system core). |  
| FR-M2: Account Profile Management | No | Involves the User entity. |  
| FR-M3: Purchase History View | No | Involves the Order entity (associated with User). |  
| FR-M4: Product Management | No | Involves the Product entity. |  
| FR-M5: Category Management | No | Involves the Category entity (associated with Product). |  
| FR-M6: Shopping Cart Management | No | Involves the Cart entity (associated with both User and Product). |  
| FR-M7: Order Checkout | No | Involves the Order entity (associated with User and Cart). |  
| FR-M8: Plugin Management | Yes | The Plugin entity is not associated with any existing entities (e.g., User, Product), resulting in an isolated node in the E-R diagram. |

**Summary**

* Total data entities identified: 6 (User, Product, Category, Cart, Order, Plugin).
* After merging, there are 8 functional requirements.
* Hallucinated requirements: 1 (FR-M8).
* Non-hallucinated requirements: 7.

**Additional Justification**:

* **Strict Hallucination Judgment**: FR-M8 was classified as hallucinated because the Plugin entity has no defined relationships (e.g., with User or Product), causing a break in the E-R diagram.
* **Overall Soundness**: The document is generally well-structured, but the Plugin requirement is a common problem — often presented as an extension without proper integration. Hence, strict judgment was applied.