LLM Automated Evaluation Results

Functional Requirements Evaluation Table

According to the user’s request, I conducted a detailed review of the provided requirements document. The evaluation process included the following steps:

1. Data Entity Statistics: Data entities managed internally by the system were extracted from the functional requirements and external interfaces, excluding external data sources or formats. A total of 8 data entities were identified: Customer data entity, User data entity, Product data entity, Shopping Cart data entity, Order data entity, Payment Information data entity, Plugin data entity, User Authentication data entity.

2. Functional Requirement Consolidation Statistics: Based on the rules, identical functional points involving the same data entity were merged (only when the functions were extremely similar, such as the same operation on the same entity), and general system configuration requirements (e.g., preference settings, multilingual support) were excluded. The document contained no general configuration-type requirements, and overly fine-grained functional items were only merged if clearly redundant. After review:

• FR-16 (View Order History) and FR-17 (View Order Details) both involve the “view” operation on Order, but differ in input and output (history list vs. individual details), so not merged.

• FR-03 (View Customer Information) and FR-04 (Update Customer Information) correspond to read and write operations on Customer and are not merged.

• No other requirements were identified as candidates for merging.

• The total number of functional requirements remained 29 (FR-01 to FR-29).

3. Hallucination Requirement Identification: According to the definition, hallucinated requirements refer to those involving data entities that are not connected to any defined entity in the system (resulting in a disconnected E-R diagram). All functional requirements involved at least one defined data entity, and the E-R diagram was fully connected (e.g., Customer is linked to Order, Product is linked to Shopping Cart, User is linked to Authentication), thus there were no hallucinated requirements.

4.

Below is the complete evaluation table. Each functional requirement has been individually evaluated to ensure completeness. The justification is based strictly on the requirement document content.

| Functional Requirement | Hallucinated Requirement | Justification |

| FR-01: Customer Registration | No | Involves the Customer entity, functional description is clear, and a valid registration pathway exists in the actual system |

| FR-02: User Registration | No | Similar to FR-01, the entity is clearly defined and the process is reasonable without isolation |

| FR-03: View Customer Information | No | Based on Customer ID query, the entity, input, and output are all reasonable and data path is closed |

| FR-04: Update Customer Information | No | The update process is logically clear and the entity operation matches the system structure |

| FR-05: Deactivate Customer Account | No | Status change reflects real business needs, the entity exists, and functionality is complete |

| FR-06: User Login | No | Based on credential-based authentication, matches standard system login mechanisms |

| FR-07: User Logout | No | Symmetric to login, entity and process definitions are reasonable with clearly bounded functionality |

| FR-08: Add Product | No | Involves the Product entity, addition logic aligns with product management in the system |

| FR-09: View Product Details | No | Product query follows standard procedure, relies on existing entity, and display logic is reasonable |

| FR-10: Update Product Information | No | Modifying product details is common in business logic, with well-defined input and output paths |

| FR-11: Remove Product | No | Product removal is a real operation with logic consistent with system behavior |

| FR-12: Add Product to Shopping Cart | No | Adding to shopping cart is standard functionality, based on well-defined entity |

| FR-13: View Shopping Cart | No | Viewing shopping cart contents is a common interaction feature, with complete structure |

| FR-14: Modify Shopping Cart | No | Modifying shopping cart items is standard operation, logic is coherent and actionable |

| FR-15: Checkout and Process Order | No | Involves multiple entities and modules; despite external dependencies, core logic contains no hallucinations |

| FR-16: View Order History | No | Querying historical orders is reasonable and relies on a stable Order entity structure |

| FR-17: View Order Details | No | Clearly uses Order ID for retrieval, aligns with system business scenarios |

| FR-18: Update Order Status | No | Status updates are part of the order lifecycle management, and the entity is valid |

| FR-19: Cancel Order | No | Order cancellation and inventory rollback are typical business logic with coherent structure |

| FR-20: View Payment Information | No | Payment information queries are based on existing records, and functionality paths are complete |

| FR-21: Add Plugin | No | Plugin installation serves as a system extension, and functionality is properly anchored |

| FR-22: Update Plugin | No | Plugin update is a common feature; structure relies on Plugin entity and meets actual needs |

| FR-23: Remove Plugin | No | Plugin removal is reasonable and the involved paths are traceable |

| FR-24: Create Administrator Account | No | Admin account creation falls within access control management, supported by system structure |

| FR-25: Update Administrator Account | No | Updating admin information is logically clear and well-integrated with access control system |

| FR-26: Delete Administrator Account | No | Admin removal is based on actual security management needs and has functional justification |

| FR-27: Add Authentication Method | No | Adding authentication methods supports system security extension and is functionally feasible |

| FR-28: Update Authentication Method | No | Modifying authentication parameters is a typical security configuration need, path is closed-loop |

| FR-29: Remove Authentication Method | No | Deleting authentication methods is clearly defined and supported by system logic |

Summary:

• The entire document involves 8 data entities.

• After merging similar functional points (no actual merging), the total number of functional requirements is 29.

• Among them, 0 are hallucinated requirements (all requirements involve defined entities and the E-R diagram is connected).

• The number of non-hallucinated requirements is 29 (since there are no hallucinations, all are valid).

Evaluation Explanation:

• Hallucination Judgement: All functional points involve data entities (such as Customer, User, etc.) that are defined in the document, and are interconnected through relationships (e.g., Customer-Order, Product-Shopping Cart), forming a connected E-R diagram. No isolated entities or functions exist, thus no hallucinations were identified.

• Strictness: The evaluation was slightly strict (e.g., CRUD operations were not merged), but the document quality is high, so all requirements meet the standards. No problematic requirements were identified.