LLM Automated Evaluation Results

Functional Requirement Evaluation Table

According to your request, I first analyzed the entire document. The data entities mentioned in the document are those managed internally by the system, extracted from the functional requirements, excluding external data sources or formats referenced in external interfaces. Based on the functional requirement descriptions, I identified 21 unique data entities: Customer, LoginSession, Product, Category, ShoppingCart, PaymentInformation, Order, OrderDetail, Inventory, Plugin, PluginSetting, EmailService, NotificationLog, BrowsingHistory, ProductView, SearchQuery, DocumentReference, RegistrationRecord, Administrator, Browser, and SystemAccessControl.

Next, I conducted a merge and count of functional requirements. The merge rules were as follows:

• Functional points operating on the same data entity are merged into a single requirement (for example, various approval operations under different amounts are merged as “Asset Approval”).

• Generic system settings (e.g., preferences, multilingual support) are directly excluded.

During the analysis, all 35 functional requirements (FR-01 to FR-35) were independent, with no identical functional points for the same entity that could be merged (e.g., FR-16 product addition, FR-17 product update, FR-18 product deletion are different operations and thus not merged). There were also no generic system setting requirements (such as multilingual or global preferences), so no requirements were excluded. After merging, the total number of functional requirements remained 35.

Subsequently, I evaluated hallucinated requirements:

• Hallucinated requirement judgment criteria: If the operation in the requirement involves a data entity that cannot be associated with any existing system entity, leading to a disconnected E-R diagram (i.e., an isolated node), it is considered a hallucination. The E-R diagram was constructed based on all 21 data entities, which are interconnected through functional requirements (e.g., Customer is linked to Order, Product to Category, etc.). All entities are connected with no isolated nodes.

• Strictness of evaluation: I adopted a relatively strict standard, ensuring each requirement received a specific judgment. The number of hallucinated requirements is 0. Regarding full traceability, FR-09 and FR-29 are considered not fully traceable. For testability, FR-09 is deemed untestable.

Below is the detailed evaluation table. Each functional requirement is listed along with its hallucination judgment and evaluation reason.

｜Functional Requirement｜Hallucinated Requirement｜Justification｜

| FR-01: Customer Registration Function｜No｜Involves the Customer entity; its structural linkage within the system is clearly defined with no isolated nodes. |

| FR-02: Customer Login Function｜No｜Involves the LoginSession entity, which is tightly coupled with Customer and has complete logical structure. |

| FR-03: Customer Logout Function｜No｜Involves the LoginSession entity, with a well-defined termination mechanism and complete system entity linkage. |

| FR-04: Customer Profile Management Function｜No｜Involves the Customer entity, with valid entity connection and clear structure. |

| FR-05: Product Search Function｜No｜Involves the Product entity; search operation is seamlessly connected with Product and Category entities. |

| FR-06: Product Filtering Function｜No｜Involves Product and Category entities; category-based filtering is consistent with the data model. |

| FR-07: Product View Function｜No｜Involves the Product entity; the product detail display relies on the existing data structure. |

| FR-08: Shopping Cart Management Function｜No｜Involves ShoppingCart, Customer, and Product entities; the structure is continuous and unbroken. |

| FR-09: Proceed to Checkout Function｜No｜Involves the ShoppingCart entity; though the “preparation” state is vague, the entity chain is complete. |

| FR-10: Payment Information Management Function｜No｜Involves the PaymentInformation entity, strongly associated with Customer, with a closed data structure. |

| FR-11: Order Placement Function｜No｜Involves core entities such as Order, Customer, and PaymentInformation; the structure is fully connected. |

| FR-12: Order Confirmation Function｜No｜Involves the Order entity; the confirmation flow aligns with the data model logic. |

| FR-13: Order Cancellation Function｜No｜Involves Order and ShoppingCart entities; status changes are coordinated with the model. |

| FR-14: Order Status Viewing Function｜No｜Involves the Order entity; the status is traceable and structurally clear. |

| FR-15: Product Purchase History Function｜No｜Involves Order, OrderDetail, and Customer entities; the history query process is clear. |

| FR-16: Product Addition Function｜No｜Involves Product and Category entities; the data path for new entries is complete. |

| FR-17: Product Update Function｜No｜Involves Product and Category entities; the update logic conforms to the model structure. |

| FR-18: Product Deletion Function｜No｜Involves the Product entity; deletion operation aligns with the system model. |

| FR-19: Category Management Function｜No｜Involves the Category entity, stably associated with Product; the management operation is standardized. |

| FR-20: Order Review and Management Function｜No｜Involves the Order entity; status changes are coordinated with the data structure. |

| FR-21: Order Detail Management Function｜No｜Involves the OrderDetail entity, which forms a closed structure with the Order entity. |

| FR-22: Inventory Management Function｜No｜Involves Inventory and Product entities; update paths are complete with no isolation. |

| FR-23: Plugin Installation Function｜No｜Involves Plugin and PluginSetting entities; installation procedures are well-defined in entity design. |

| FR-24: Plugin Configuration Function｜No｜Involves the PluginSetting entity; configuration updates conform to the system structure. |

| FR-25: Plugin Uninstallation Function｜No｜Involves the Plugin entity; the uninstallation path aligns with system resource release logic. |

| FR-26: Email Service Configuration Function｜No｜Involves the EmailService entity; the setup process is supported by an explicit model in the system. |

| FR-27: Email Notification Function｜No｜Involves the EmailService entity; message dispatch logic structurally depends on Order and other entities. |

| FR-28: User Account Management Function｜No｜Involves Customer and Administrator entities; access rights and management logic are clear. |

| FR-29: System Documentation Access Function｜No｜Involves the DocumentReference entity; the system documentation structure is reasonable. |

| FR-30: Registration Record Management Function｜No｜Involves the RegistrationRecord entity; archiving logic is complete. |

| FR-31: Browser Access Control Function｜No｜Involves Browser and SystemAccessControl entities; policy constraints are structurally closed. |

| FR-32: Browsing History Tracking Function｜No｜Involves the BrowsingHistory entity; behavioral records are clearly connected to system pathways. |

| FR-33: Product View Tracking Function｜No｜Involves the ProductView entity; browsing behavior is supported by entities in the system. |

| FR-34: Search Query Tracking Function｜No｜Involves the SearchQuery entity; search behavior is defined in the model. |

| FR-35: Notification Management Function｜No｜Involves the NotificationLog entity; tightly linked with Order status, with valid structure. |

Summary

• The document contains 21 data entities: Customer, LoginSession, Product, Category, ShoppingCart, PaymentInformation, Order, OrderDetail, Inventory, Plugin, PluginSetting, EmailService, NotificationLog, BrowsingHistory, ProductView, SearchQuery, DocumentReference, RegistrationRecord, Administrator, Browser, and SystemAccessControl.

• After merging based on identical functional points, there are 35 functional requirements (no merges, no exclusions).

• Number of hallucinated requirements: 0 (all involved data entities are linked to the system’s core structure, resulting in a weakly connected E-R diagram).

• Number of non-hallucinated requirements: 35 (since hallucinated requirements = 0).