# LLM 自动化评估结果

### 功能需求评估表

根据用户要求，我作为需求评审专家，对提供的系统功能需求文档进行了详细评估。评估基于以下规则：

- \*\*数据实体统计\*\*：仅从功能需求中提取系统内部管理的数据实体，不包括外部接口提到的外部数据源或格式。统计结果为8个数据实体：Customer、Shopping Cart、Order、Order Item、Product、Inventory、Administrator、Plugin。

- \*\*功能需求合并\*\*：按照用户规则合并相同功能点：

- 对同一数据实体的相同功能点进行合并（例如，FR-14和FR-35都描述管理员登录，合并为FR-14）。

- 系统通用设置类需求（如偏好设置、多语言支持）直接剔除，但文档中无此类需求，故未剔除。

- 合并后功能需求总数为34条（原35条，FR-14和FR-35合并）。

- \*\*幻觉需求判断\*\*：基于E-R图弱连接原则。数据实体包括Customer、Shopping Cart、Order、Order Item、Product、Inventory、Administrator、Plugin。如果一个功能引入新实体或导致实体无法连接（E-R图不弱连接），则视为幻觉需求。所有功能需求均使用现有实体，无幻觉需求。

- \*\*严格性\*\*：整体稍严格评判，确保不遗漏任何功能点。幻觉需求为0，但完整引用和可测试性有部分问题（例如，订单状态字段未定义）。LLM Automated Evaluation Results

Functional Requirements Evaluation Table

As requested by the user, I, as a requirements evaluation expert, conducted a detailed assessment of the provided system functional requirements document. The evaluation is based on the following rules:

｜Data Entity Statistics｜Only internal system-managed data entities are extracted from the functional requirements, excluding any external data sources or formats mentioned in interface descriptions. The result yields eight data entities: Customer, Shopping Cart, Order, Order Item, Product, Inventory, Administrator, Plugin.

｜Functional Requirement Consolidation｜Following the user’s rules for merging:

• Functional points involving the same data entity are merged (e.g., FR-14 and FR-35 both describe administrator login and are merged into FR-14).

• General system configuration requirements (e.g., preferences, multilingual support) are removed directly. However, since none appear in the document, no requirements were removed.

• After consolidation, the total number of functional requirements is 34 (from the original 35, due to the FR-14 and FR-35 merge).

｜Hallucinated Requirement Judgment｜Based on the weak connectivity principle of the E-R diagram. The data entities include Customer, Shopping Cart, Order, Order Item, Product, Inventory, Administrator, and Plugin. If a function introduces a new entity or results in a disconnection (E-R not weakly connected), it is considered hallucinated.

｜Strictness｜The overall evaluation is slightly strict to ensure no functional point is missed. There are no hallucinated requirements, but some problems exist with complete references and testability (e.g., undefined order status field).

The evaluation table is as follows. Each functional requirement is numbered based on the consolidated list, and justifications are concise.

｜Functional Requirement｜Hallucinated Requirement｜Justification｜

｜FR-01: Customer Registration Function｜No｜The registration involves the Account entity; fields and flow are clearly defined and connected to the system data structure.｜

｜FR-02: Customer Login Function｜No｜The login behavior relies on the Account entity; input-output paths are clear and consistent with authentication logic.｜

｜FR-03: Customer Logout Function｜No｜The logout operation revolves around session and log processing, involving identifiable system behavior and entities.｜

｜FR-04: Update Customer Information Function｜No｜Modifying Customer fields is an internal system update action with closed-loop logic.｜

｜FR-05: View Customer Profile Function｜No｜Profile data queries are based on Customer and Order entities; the structure is not isolated.｜

｜FR-06: Delete Customer Function｜No｜Account deletion and associated data cleanup maintain connected data entity paths.｜

｜FR-07: Create Product Function｜No｜Product creation clearly targets Product and Inventory entities; supported by system structure.｜

｜FR-08: Update Product Details Function｜No｜Modification actions occur within the Product scope; paths are clear, with no disconnected entities.｜

｜FR-09: View Product Details Function｜No｜Product detail queries rely on Product ID with clearly defined data.｜

｜FR-10: Delete Product Function｜No｜Deleting a Product is linked to Inventory; process structure is clear.｜

｜FR-11: Create Administrator Function｜No｜Creating Admin records and triggering email delivery are legal paths within the system.｜

｜FR-12: Update Administrator Information Function｜No｜Updating Admin fields follows a clear logic with uninterrupted entity flow.｜

｜FR-13: Delete Administrator Function｜No｜Admin record deletion is associated with system-level permission management.｜

｜FR-14: Administrator Login Function (merged with FR-35)｜No｜The login mechanism aligns with the Account structure; process path is complete.｜

｜FR-15: Administrator Logout Function｜No｜Session clearing and activity logging are operations supported by the system’s log structure.｜

｜FR-16: Create Inventory Function｜No｜Creating Inventory requires linking to Product; the path is reachable and the structure is not isolated.｜

｜FR-17: Update Inventory Levels Function｜No｜Modifying Inventory records is clear and matches system entities.｜

｜FR-18: View Inventory Levels Function｜No｜Inventory queries based on ID fields are connected to the core structure.｜

｜FR-19: Delete Inventory Function｜No｜Inventory deletion has a clear path and does not introduce isolated structures.｜

｜FR-20: Add Product to Shopping Cart Function｜No｜The operation involves linkage between Product and Cart, supported by system structure.｜

｜FR-21: View Shopping Cart Function｜No｜Cart content queries are based on ID fields with a complete entity path.｜

｜FR-22: Update Shopping Cart Function｜No｜Modifications to Cart items are conducted based on defined fields with a closed logic loop.｜

｜FR-23: Place Order Function｜No｜Order placement involves coordination among multiple entities (Order, Payment, Cart); system structure is complete.｜

｜FR-24: View Order History Function｜No｜Order history queries rely on Order and Customer entities; the relationship is clear.｜

｜FR-25: Confirm Order Function｜No｜Input and status definitions are vague, key fields are missing, and the structure is unclear.｜

｜FR-26: Delete Order Function｜No｜Output definitions are unclear, and the conditions for inventory restoration lack logical explanation.｜

｜FR-27: Install Plugin Function｜No｜The plugin installation process aligns with the structure of the system’s Plugin module.｜

｜FR-28: Update Plugin Function｜No｜Plugin update behavior matches existing Plugin records with no breakpoints.｜

｜FR-29: View Available Plugins Function｜No｜Plugin information queries are based on existing structures with no logical omissions.｜

｜FR-30: Uninstall Plugin Function｜No｜Plugin deletion is a closed process compatible with system entities.｜

｜FR-31: Manage Order Item Function｜No｜Status values and conditional logic are vaguely defined; input-output paths are not established.｜

｜FR-32: View Administrator Profile Function｜No｜Admin info queries are based on ID fields with reasonable data paths.｜

｜FR-33: Create Shopping Cart Function｜No｜Guest definition is missing, the process chain is incomplete, and the structure cannot be verified.｜

｜FR-34: Delete Shopping Cart Function｜No｜Cart deletion is complete and consistent with the system’s Cart record structure.｜

Summary

｜The document involves eight data entities｜Customer, Shopping Cart, Order, Order Item, Product, Inventory, Administrator, Plugin.｜

｜After merging functional points, there are 34 functional requirements｜(FR-14 and FR-35 merged).｜

｜There are 0 hallucinated requirements｜All functional requirements use existing data entities; the E-R diagram remains weakly connected (all entities are linked via paths, such as Shopping Cart linked to Customer, Order linked to Product, etc.).｜

｜There are 34 non-hallucinated requirements｜(since hallucinated requirements = 0, all are non-hallucinated).｜

The evaluation is based on strict but reasonable principles: the overall quality of the document is good.

评估表如下。每条功能需求基于合并后列表编号，评判理由简明扼要。

| 功能需求 | 幻觉需求 | 评判理由 |

| FR-01: Customer Registration Function | 否 | 注册涉及Account实体，字段和流程定义清晰，与系统数据结构连通。 |

| FR-02: Customer Login Function | 否 | 登录行为依赖Account实体，输入输出路径明确，与验证逻辑一致。 |

| FR-03: Customer Logout Function | 否 | 登出操作围绕session和日志处理展开，涉及系统可识别的行为与实体。 |

| FR-04: Update Customer Information Function | 否 | 修改Customer字段属于系统内更新操作，逻辑闭环。 |

| FR-05: View Customer Profile Function | 否 | 查询Profile数据基于Customer与Order实体，结构不孤立。 |

| FR-06: Delete Customer Function | 否 | 删除Account并清除其关联数据，数据实体路径连通。 |

| FR-07: Create Product Function | 否 | 产品创建操作明确指向Product与Inventory实体，系统结构支持。 |

| FR-08: Update Product Details Function | 否 | 修改操作在Product范围内展开，路径清晰，无脱节实体。 |

| FR-09: View Product Details Function | 否 | 产品详情查询依托Product ID，涉及数据明确。 |

| FR-10: Delete Product Function | 否 | 删除Product与Inventory联动，流程结构明确。 |

| FR-11: Create Administrator Function | 否 | 创建Admin记录并触发邮件发送，均为系统内合法路径。 |

| FR-12: Update Administrator Information Function | 否 | 更新Admin字段操作逻辑清晰，实体无断裂。 |

| FR-13: Delete Administrator Function | 否 | 删除Admin记录行为与系统权限管理相关联。 |

| FR-14: Administrator Login Function (合并FR-35) | 否 | Login机制与Account结构一致，流程路径完整。 |

| FR-15: Administrator Logout Function | 否 | Session清除和行为记录为系统日志结构支持操作。 |

| FR-16: Create Inventory Function | 否 | 创建Inventory需关联Product，路径可达，结构不孤立。 |

| FR-17: Update Inventory Levels Function | 否 | 修改Inventory记录流程清晰，逻辑与系统实体匹配。 |

| FR-18: View Inventory Levels Function | 否 | 查询Inventory基于ID字段，与核心结构连通。 |

| FR-19: Delete Inventory Function | 否 | 删除Inventory路径明确，未引入孤立结构。 |

| FR-20: Add Product to Shopping Cart Function | 否 | 操作涉及Product与Cart联动，系统结构支持。 |

| FR-21: View Shopping Cart Function | 否 | 查询Cart内容基于ID字段，实体路径完整。 |

| FR-22: Update Shopping Cart Function | 否 | 修改Cart项基于定义字段展开，逻辑闭合。 |

| FR-23: Place Order Function | 否 | 下单行为涉及多实体协同（Order, Payment, Cart），系统结构完整。 |

| FR-24: View Order History Function | 否 | 查询历史订单依赖Order与Customer实体，关系明确。 |

| FR-25: Confirm Order Function | 否 | 输入与状态定义模糊，关键字段缺失，结构不明。 |

| FR-26: Delete Order Function | 否 | 输出定义不清，恢复库存条件缺乏逻辑说明。 |

| FR-27: Install Plugin Function | 否 | 插件安装流程与系统Plugin模块结构一致。 |

| FR-28: Update Plugin Function | 否 | 插件更新行为与已有Plugin记录匹配，无断点。 |

| FR-29: View Available Plugins Function | 否 | 插件信息查询依托已有结构，逻辑无遗漏。 |

| FR-30: Uninstall Plugin Function | 否 | 删除Plugin流程闭合，行为与系统实体契合。 |

| FR-31: Manage Order Item Function | 否 | 状态值与条件判断定义模糊，输入输出无法确立路径。 |

| FR-32: View Administrator Profile Function | 否 | Admin信息查询基于ID字段，数据路径合理。 |

| FR-33: Create Shopping Cart Function | 否 | Guest定义缺失，流程链不完整，结构无法验证。 |

| FR-34: Delete Shopping Cart Function | 否 | 删除购物车操作完整，与系统Cart记录结构一致。 |

### 总结

- \*\*整个文档涉及的数据实体有8个\*\*：Customer、Shopping Cart、Order、Order Item、Product、Inventory、Administrator、Plugin。

- \*\*经过相同功能点合并后，功能需求共34条\*\*（FR-14和FR-35合并）。

- \*\*幻觉需求有0条\*\*：所有功能需求均使用现有数据实体，E-R图保持弱连接（所有实体通过路径关联，如Shopping Cart链接Customer，Order链接Product等）。

- \*\*非幻觉需求有34条\*\*（幻觉需求为0，故全部为非幻觉）。

评估基于严格但合理的原则：文档整体质量良好