LLM Automated Evaluation Results

Functional Requirement Evaluation Table

According to user instructions, I conducted a comprehensive evaluation of the asset management system requirement document. The evaluation strictly followed the steps below:

1. Identifying Data Entities: Data entities managed within the system were extracted from the functional requirements (excluding external data sources or formats mentioned in interfaces). A total of 11 data entities were identified.

2. Merging Functional Requirements: Functional requirements were merged following the rule that operations on the same data entity with the same functional point should be combined; general system settings were excluded. After merging, there were 19 functional requirements (no merge needed, each addressed a distinct function or entity).

3. Hallucinated Requirement Judgment: Based on the definition (a requirement is considered hallucinated if the introduced data entity cannot be associated with existing entities, making the E-R diagram not weakly connected), each functional point was evaluated.

Data Entity Statistics

Involved data entities: 11 in total, extracted from functional requirements:

1. Asset – a core entity, involved in registration, transfer, return, etc.

2. User – includes regular users and administrators, involved in user and permission management.

3. AssetCategory – involved in category management.

4. AssetLocation – involved in location management.

5. AssetStatus – involved in status management.

6. HistoryRecord – involved in asset history record management.

7. ImportExportRecord – involved in import/export data record management.

8. ApprovalTask – involved in approval task management.

9. Report – involved in report generation, export, and management.

10. Permission – involved in user permission management.

11. ApprovalProcess – involved in approval process management and status viewing.

Functional Requirement Merge Result

Original requirements: 19 items (FR-01 to FR-19).

Application of merge rules:

No identical functional points on the same data entity for merging (e.g., registration, transfer, and return for asset are distinct operations and not merged).

No general system setting requirements (e.g., preferences or multilingual support) were found for removal.

Merged functional requirement count: 19 (same as original list).

Hallucinated Requirement Judgment

Evaluation standard: A requirement is hallucinated if the introduced data entity cannot be associated with any existing system entity, causing the E-R diagram to lack weak connectivity (i.e., isolated nodes). Descriptive extensions were not counted as hallucinations.

Number of hallucinated requirements: 0 (all data entities involved in the requirements can be connected through asset or user entities, forming a weakly connected E-R diagram).

Detailed Evaluation Table

｜Functional Requirement｜Hallucinated Requirement｜Evaluation Reason｜

| FR-01 ｜ No ｜ Involves the asset entity; the input-output definition is clear; asset information can be stored as database records and prompts; the system structure is connected. ｜

| FR-02 ｜ No ｜ Involves asset and user entities; input such as asset number triggers state updates and prompts; weak connectivity exists between entities. ｜

| FR-03 ｜ No ｜ Involves asset and user entities; the return process is linked to the approval process; the system forms a closed path with a complete logical chain. ｜

| FR-04 ｜ No ｜ Involves the asset entity; query conditions generate asset list results; the function structure is clear and non-isolated. ｜

| FR-05 ｜ No ｜ Involves the asset entity; edit and delete operations trigger database updates and prompts; connections exist between system entities. ｜

| FR-06 ｜ No ｜ Involves the user entity; user information supports creation, editing, and deletion operations; the structure provides logical pathways. ｜

| FR-07 ｜ No ｜ Involves user and permission entities; permission modification operations are clear; the function is connected to the logging system. ｜

| FR-08 ｜ No ｜ Involves the approval process entity; connected to asset management functions; configuration of approval establishes a complete workflow with a closed structure. ｜

| FR-09 ｜ No ｜ Involves the approval process entity; process ID is used to query status; the data pathway is clear; the entity is not isolated. ｜

| FR-10 ｜ No ｜ Involves the report entity; filtering conditions generate report content; logical operations and data mappings are clear. ｜

| FR-11 ｜ No ｜ Involves the report entity; report ID and format generate export files; the structure is traceable with no logical breakpoints. ｜

| FR-12 ｜ No ｜ Involves the report entity; management operations correspond to viewing and deletion functions; functional behavior is supported by clear entities. ｜

| FR-13 ｜ No ｜ Involves the user entity; administrators are a subset of users; operation paths are consistent with user management logic. ｜

| FR-14 ｜ No ｜ Involves the asset category entity; structurally connected to asset management; classification update behavior is supported by the system. ｜

| FR-15 ｜ No ｜ Involves the asset location entity; location update logic forms a closed loop with asset information management. ｜

| FR-16 ｜ No ｜ Involves the asset status entity; state changes are dependent on asset operations; logical paths are clear. ｜

| FR-17 ｜ No ｜ Involves the history record entity; historical information can be queried based on asset ID; data source is logically supported. ｜

| FR-18 ｜ No ｜ Involves the import/export record entity, but the import/export operations are not defined in functional requirements; lacking a trigger path, making the recording feature unable to independently form a closed-loop logic. ｜

| FR-19 ｜ No ｜ Involves the approval task entity; task ID is used to retrieve task details; the function structure is complete and consistent with the approval process. ｜

Summary

The entire document involves 11 data entities.

After merging based on identical functional points, the number of functional requirements remains 19.

The number of hallucinated requirements is 0 (all data entities in the requirements can be associated).

The number of non-hallucinated requirements is 19 (hallucination rate is 0).