LLM Automated Evaluation Results

**Functional Requirements Evaluation Report**

Below is the detailed evaluation of the functional requirements document for the Asset Management System. Based on user instructions, I performed the following steps:

1. **Identifying Data Entities**: Only data entities that need to be managed within the system are counted (based on input/output descriptions from the functional requirements), excluding external interface-related elements. Data entities are the core objects in the system (e.g., Asset, User), used for E-R diagram modeling.
2. **Consolidating Functional Requirements**: According to rules, functional points involving the same data entity and purpose are merged (e.g., merging approval logic), and generic system setting requirements (e.g., preferences) are excluded. There are no generic settings or mergeable items in the document (each requirement targets a different entity or operation), so the number of functional requirements remains unchanged (8 items).
3. **Identifying Hallucinated Requirements**: A hallucinated requirement is defined as one introducing a function that cannot be associated with any existing data entity, causing the E-R diagram to lose weak connectivity (i.e., disconnected entities). Evaluation is based on structural criteria (entity linkage).

**Data Entity Identification Results**:

* Extracted from functional requirements, these are objects that require persistent management within the system, identified from input/output fields and descriptions:
  + **Asset**: Defined by Asset Registration (input: Asset name, etc.).
  + **User**: Inferred from fields like User ID in requirements such as Usage Tracking and Transfer.
  + **Usage**: Defined by Asset Usage Tracking (inputs: Asset ID, User ID, etc.).
  + **Transfer**: Defined by Asset Transfer (inputs: Source user ID, destination user ID, etc.).
  + **Return**: Defined by Asset Return (inputs: Asset ID, User ID, etc.).
  + **Permission**: Defined by Permission Allocation (inputs: User role, permissions).
  + **Approval**: Defined by Approval Workflow (inputs: Request type, requester ID, etc.).
* External interfaces (e.g., Database Interface) do not introduce new entities; they are only used for storage or interaction.
* **Total number of data entities: 7**.

**Functional Requirements Consolidation Statistics**:

* Original functional requirements: 8 (2.1 to 2.8).
* Consolidation rules applied:
  + No identical functional points on the same data entity (e.g., Asset Transfer and Asset Return both involve Asset updates, but with different actions: ownership transfer vs. availability update).
  + No generic system setting requirements (e.g., preferences).
  + Therefore, **total number of functional requirements after consolidation: 8**.

**Summary of Hallucinated Requirement Judgment**:

* Hallucinated requirements: 0. All involved data entities are connected with existing entities (E-R diagram maintains weak connectivity). For example, Asset and User are core entities; Usage and Transfer are linked via Asset ID or User ID.
* Valid (non-hallucinated) requirements: 8.

**Complete Evaluation Table**:

Functional Requirement | Hallucination | Justification

------------------------|---------------|--------------  
2.1 Asset Registration｜No｜Depends on Asset entity and has clear linkage to User (owner) entity, connected in E-R diagram, not a hallucination.  
2.2 Asset Usage Tracking｜No｜Depends on Usage entity and connects Asset and User via Asset ID and User ID; structure is clear, not a hallucination.  
2.3 Asset Transfer｜No｜Based on Transfer entity, establishes relationships with User and Asset entities; E-R structure is well supported, not a hallucination.  
2.4 Asset Return｜No｜Depends on Return entity, connects Asset via Asset ID and User ID; clear entity linkage, not a hallucination.  
2.5 Report Generation｜No｜Does not introduce new entities; statistical functions are based on existing data from entities like Asset and Usage, not a hallucination.  
2.6 Permission Allocation｜No｜Involves Permission entity; connects to User through role. However, some permission operations are not clearly mapped to requirements, indicating conceptual drift.  
2.7 Approval Workflow｜No｜Based on Approval entity to build approval logic. Although inputs like “deletion” refer to undefined operations, entity structure remains clear, not a hallucination.  
2.8 Data Import and Export｜No｜Does not introduce new entities; operates on existing datasets for batch processing. Functional logic is sound, not a hallucination.

**Summary**:

* The document involves **7 data entities** (Asset, User, Usage, Transfer, Return, Permission, Approval).
* After applying consolidation rules, the total number of functional requirements is **8**.
* Number of hallucinated requirements: **0**.
* Number of valid (non-hallucinated) requirements: **8**.