LLM Automated Evaluation Results

**Functional Requirements Evaluation**

According to the rules provided by the user, I conducted a review of the functional requirements document. First, I identified the data entities that the system needs to manage (excluding external data sources or formats mentioned in interface descriptions). Based on the functional requirements, the following data entities were identified: Mail, Contact, Group, Mail Folder, Reminder Task, Archive Policy, Archive Record, Backup Task, Backup Log, Recovery Record, Mailbox Account, Shared Account, Mail Flow. A total of **13 data entities**.

Next, I merged functional requirements to ensure consistent granularity. Merging rules: for the same data entity with the same functional point, they are merged into one functional requirement (e.g., deleting contact is merged into managing contact); system-wide setting requirements (like preferences or multilingual support) are excluded (such requirements do not exist in the document). After merging, the original 33 functional requirements were reduced to **26 functional requirements**. Details of merging:

* FR-08 (Delete Contact) merged into FR-07 (Manage Contact), as deletion is a sub-operation of management.
* FR-28 (Delete Mailbox Account) merged into FR-27 (Manage Mailbox Account), for the same reason.
* FR-31 (Add Archive Policy) merged into FR-25 (Manage Archive Policy), as adding is part of management.
* FR-32 (View Archive Record) merged into FR-13 (Manage Archive Record), as viewing is a part of management.
* FR-12 (View Reminder Task) merged into FR-33 (Manage Reminder Task).
* FR-30 (View Recovery Record) merged into FR-24 (Manage Recovery Record).
* FR-23 (View Backup Log) merged into FR-29 (Manage Backup Log).
* Other functional requirements remained independent due to distinct operation points (e.g., create vs. manage group), ensuring clear functional separation.

Then, I evaluated each functional requirement for hallucination, full reference, and feasibility (testability):

* **Hallucination Judgment Criteria**: A requirement is considered hallucinated if the involved data entity cannot be linked to any existing entity in the system, resulting in a disconnected E-R diagram (i.e., isolated node). Since all core data entities are connected (with mail at the center), only newly introduced or disconnected entities cause hallucination.
* The judgment is slightly strict, so some issues were identified (e.g., FR-16 introduces Mail Flow entity without defining its connection clearly, thus marked hallucination).

Below is the complete evaluation table. Each functional requirement is judged based on the merged list, with justifications derived from the requirement description and document content.

Send Mail (FR-01) | No | Mail entity is core to the system, input/output path is clear, operation logic is valid  
Receive Mail (FR-02) | No | Mail retrieval via POP3/IMAP is well-defined, valid functionality  
Format Mail (FR-03) | No | Format transformation based on mail content is logical and predefined  
Search Mail (FR-04) | No | Search based on mail content and keywords, structure is clear, no hallucination  
Manage Mail Folder (FR-05) | No | Classification rules are not detailed, archive logic depends on external strategy, input-output path unclear  
Add Contact (FR-06) | No | Contact entry logic is clear and closed-loop  
Manage Contact (FR-07, merged FR-08) | No | Contact editing and deletion operations are logical and clear  
Create Group (FR-09) | No | Group input structure is well-defined, valid operation path  
Manage Group (FR-10) | No | Group edit and removal operations are valid and well-defined  
Set Reminder Task (FR-11) | No | Reminder method not fully defined, trigger unclear, lacks verifiable path  
Manage Archive (FR-13, merged FR-32) | No | Archive management logic is consistent, input-output match  
Search Archived Mail (FR-14) | No | Retrieval logic is valid and path is clear  
Server Archive Mail (FR-15) | No | Archive process is undefined, state is ambiguous, lacks conversion clarity  
Capture Mail Flow (FR-16) | Yes | Mail Flow entity is weakly connected to the system, unclear conditions, hallucinated function  
Archive by Policy (FR-17) | No | Policy-to-mail mapping is defined, logical and complete  
Handle Expired Mail (FR-18) | No | Expiry triggers clear logic, operation path is valid  
Start Backup (FR-19) | No | Function matches backup entity, clear flow  
Manage Backup Task (FR-20) | No | Backup task editing/scheduling logic is valid and complete  
Restore Mail Data (FR-21) | No | Restore logic is complete, input-output clearly defined  
Restore by Time Point (FR-22) | No | Time point format not defined, dependent on external logic, partially uncontrollable path  
Manage Recovery Record (FR-24, merged FR-30) | No | Logic and structure of recovery management are valid  
Manage Archive Policy (FR-25, merged FR-31) | No | Policy creation and modification path is defined  
Regulate Shared Account (FR-26) | No | Permission settings not detailed, result state not quantifiable, lacks test path  
Manage Mailbox Account (FR-27, merged FR-28) | No | Mailbox operations are logically complete, valid I/O  
Manage Backup Log (FR-29, merged FR-23) | No | Log scope not clearly defined, depends on external system state, I/O is unclear  
Manage Reminder Task (FR-33, merged FR-12) | No | Reminder operations match entity and have testable logic

**Summary**

* **Total data entities mentioned**: 13 (Mail, Contact, Group, Mail Folder, Reminder Task, Archive Policy, Archive Record, Backup Task, Backup Log, Recovery Record, Mailbox Account, Shared Account, Mail Flow)
* **Total functional requirements after merging**: 26
* **Hallucinated requirements**: 1 (FR-16 Capture Mail Flow)
* **Valid non-hallucinated requirements**: 25