# Functional Requirement

### 1.1 Send Email

\*\*Function Number: FR-01\*\*

\*\*Description\*\*: Users can send emails through the system, which must support attachment upload, format validation, and permission checks.

\*\*Input\*\*: User ID, recipient email address, email subject, email body, attachments (optional).

\*\*Output\*\*: Success message for email sending, email sending log.

### 1.2 Receive Email

\*\*Function Number: FR-02\*\*

\*\*Description\*\*: The system receives new emails from the email server and stores them in the user's email account.

\*\*Input\*\*: New email data pushed from the email server (including sender, recipient, subject, body, attachments, etc.).

\*\*Output\*\*: List of new emails in the user's email account, email receiving log.

### 1.3 Search for Emails

\*\*Function Number: FR-03\*\*

\*\*Description\*\*: Users can search for emails in their mailbox using keywords or filtering conditions.

\*\*Input\*\*: User ID, search keywords, filtering conditions (such as sender, subject, date range, etc.).

\*\*Output\*\*: List of emails that match the search criteria, search operation log.

### 1.4 Create Folder

\*\*Function Number: FR-04\*\*

\*\*Description\*\*: Users can create new folders in their email account or shared account to organize emails.

\*\*Input\*\*: User ID, folder name.

\*\*Output\*\*: Successfully created folder, folder creation operation log.

### 1.5 Move Email to Folder

\*\*Function Number: FR-05\*\*

\*\*Description\*\*: Users can move emails from the current folder to the target folder.

\*\*Input\*\*: User ID, email ID, target folder ID.

\*\*Output\*\*: Successfully moved email, email move operation log.

### 1.6 Create Contact

\*\*Function Number: FR-06\*\*

\*\*Description\*\*: Users can create new contacts in their email account or shared account.

\*\*Input\*\*: User ID, contact name, email address, phone number, address.

\*\*Output\*\*: Successfully created contact, contact creation operation log.

### 1.7 Edit Contact

\*\*Function Number: FR-07\*\*

\*\*Description\*\*: Users can edit existing contact information.

\*\*Input\*\*: User ID, contact ID, updated contact information (such as name, email address, phone number, address, etc.).

\*\*Output\*\*: Updated contact information, contact edit operation log.

### 1.8 Delete Contact

\*\*Function Number: FR-08\*\*

\*\*Description\*\*: Users can delete existing contacts.

\*\*Input\*\*: User ID, contact ID.

\*\*Output\*\*: Success message for contact deletion, contact deletion operation log.

### 1.9 Create Distribution Group

\*\*Function Number: FR-09\*\*

\*\*Description\*\*: Users can create new distribution groups in their email account or shared account and add members.

\*\*Input\*\*: User ID, distribution group name, list of members.

\*\*Output\*\*: Successfully created distribution group, distribution group creation operation log.

### 1.10 Add Members to Distribution Group

\*\*Function Number: FR-10\*\*

\*\*Description\*\*: Users can add contacts to existing distribution groups.

\*\*Input\*\*: User ID, distribution group ID, list of members.

\*\*Output\*\*: Updated list of distribution group members, distribution group member addition operation log.

### 1.11 Remove Members from Distribution Group

\*\*Function Number: FR-11\*\*

\*\*Description\*\*: Users can remove members from distribution groups.

\*\*Input\*\*: User ID, distribution group ID, list of members.

\*\*Output\*\*: Updated list of distribution group members, distribution group member removal operation log.

### 1.12 Set Reminder Task

\*\*Function Number: FR-12\*\*

\*\*Description\*\*: Users can set reminder tasks, and the system will trigger reminders at specified times or under certain conditions.

\*\*Input\*\*: User ID, task title, reminder time, reminder target, repetition cycle (optional).

\*\*Output\*\*: Successfully created reminder task, reminder task creation operation log.

### 1.13 Cancel Reminder Task

\*\*Function Number: FR-13\*\*

\*\*Description\*\*: Users can cancel set reminder tasks.

\*\*Input\*\*: User ID, task ID.

\*\*Output\*\*: Successfully canceled reminder task, reminder task cancellation operation log.

### 1.14 Assign Administrator Permissions

\*\*Function Number: FR-14\*\*

\*\*Description\*\*: Administrators can assign administrator permissions to other users or shared accounts.

\*\*Input\*\*: Administrator ID, target user ID or shared account ID, permission level or scope.

\*\*Output\*\*: Successfully assigned administrator permissions, administrator permission assignment operation log.

### 1.15 Create Shared Account

\*\*Function Number: FR-15\*\*

\*\*Description\*\*: Administrators can create new shared accounts and set their permissions and access scope.

\*\*Input\*\*: Administrator ID, shared account name, email address, password, permission settings, allowed access users or distribution groups.

\*\*Output\*\*: Successfully created shared account, shared account creation operation log.

### 1.16 Grant Access Permissions to Shared Account

\*\*Function Number: FR-16\*\*

\*\*Description\*\*: Administrators can grant access permissions to shared accounts for users or distribution groups.

\*\*Input\*\*: Administrator ID, shared account ID, user ID or distribution group ID, access permissions (such as read-only, write, manage, etc.).

\*\*Output\*\*: Updated access permission configuration, shared account access permission grant operation log.

### 1.17 Revoke Access Permissions to Shared Account

\*\*Function Number: FR-17\*\*

\*\*Description\*\*: Administrators can revoke access permissions to shared accounts for users or distribution groups.

\*\*Input\*\*: Administrator ID, shared account ID, user ID or distribution group ID.

\*\*Output\*\*: Updated access permission configuration, shared account access permission revocation operation log.

### 1.18 Create Archiving Rules

\*\*Function Number: FR-18\*\*

\*\*Description\*\*: Users can create archiving rules, and the system will automatically archive emails based on the rules.

\*\*Input\*\*: User ID, rule name, trigger conditions (such as email subject, sender, time, etc.), target folder.

\*\*Output\*\*: Successfully created archiving rule, archiving rule creation operation log.

### 1.19 Apply Archiving Rules

\*\*Function Number: FR-19\*\*

\*\*Description\*\*: The system automatically archives emails based on the created archiving rules.

\*\*Input\*\*: Archiving rule ID, email ID.

\*\*Output\*\*: Successfully archived email, archiving operation log.

### 1.20 View Archived Emails

\*\*Function Number: FR-20\*\*

\*\*Description\*\*: Users can view the summary and detailed content of archived emails.

\*\*Input\*\*: User ID, archived email ID.

\*\*Output\*\*: Summary and detailed content of the archived email, view archived email operation log.

### 1.21 Restore Archived Emails

\*\*Function Number: FR-21\*\*

\*\*Description\*\*: Users can restore archived emails to the original mailbox or target folder.

\*\*Input\*\*: User ID, archived email ID, target folder ID.

\*\*Output\*\*: Successfully restored email, email restoration operation log.

### 1.22 Perform Full Backup

\*\*Function Number: FR-22\*\*

\*\*Description\*\*: Administrators can perform a full backup, and the system will package all data and store it in the specified path.

\*\*Input\*\*: Administrator ID, backup target path.

\*\*Output\*\*: Backup file, full backup operation log.

### 1.23 Perform Incremental Backup

\*\*Function Number: FR-23\*\*

\*\*Description\*\*: Administrators can perform incremental backups, and the system will package and store data that has been added or modified since the last backup in the specified path.

\*\*Input\*\*: Administrator ID, backup target path.

\*\*Output\*\*: Incremental backup file, incremental backup operation log.

### 1.24 Restore Single File

\*\*Function Number: FR-24\*\*

\*\*Description\*\*: Users can restore a single backup file or archived email.

\*\*Input\*\*: User ID, backup file ID or archived email ID, target folder ID.

\*\*Output\*\*: Successfully restored file or email, file restoration operation log.

### 1.25 Restore Entire Database

\*\*Function Number: FR-25\*\*

\*\*Description\*\*: Administrators can restore the entire database, and the system will restore data from the backup file to the database.

\*\*Input\*\*: Administrator ID, backup file ID.

\*\*Output\*\*: Successfully restored database, database restoration operation log.

### 1.26 View Backup Logs

\*\*Function Number: FR-26\*\*

\*\*Description\*\*: Administrators can view logs of backup operations.

\*\*Input\*\*: Administrator ID, filtering conditions (such as time range, backup type, execution result, etc.).

\*\*Output\*\*: List of backup logs, view backup log operation log.

### 1.27 View Restore Logs

\*\*Function Number: FR-27\*\*

\*\*Description\*\*: Administrators can view logs of restore operations.

\*\*Input\*\*: Administrator ID, filtering conditions (such as time range, restore type, execution result, etc.).

\*\*Output\*\*: List of restore logs, view restore log operation log.

### 1.28 Manage Email Retention Policies

\*\*Function Number: FR-28\*\*

\*\*Description\*\*: Administrators can create, modify, or delete email retention policies, and the system will execute email retention or cleanup operations based on the policies.

\*\*Input\*\*: Administrator ID, policy name, retention conditions (such as email type, sender, time range, storage location, etc.), execution method (such as automatic archiving, automatic deletion, trigger task, etc.).

\*\*Output\*\*: Updated email retention policy, email retention policy management operation log.

### 1.29 Clear Expired Emails

\*\*Function Number: FR-29\*\*

\*\*Description\*\*: Users can clear emails that meet the clearance criteria.

\*\*Input\*\*: User ID, clearance rules (such as clear by date, clear by retention policy, etc.).

\*\*Output\*\*: Successfully cleared emails, email clearance operation log.

### 1.30 Create Administrator Account

\*\*Function Number: FR-30\*\*

\*\*Description\*\*: Administrators can create new administrator accounts and set their permissions.

\*\*Input\*\*: Administrator ID, account name of the new administrator account, password, permission level or scope.

\*\*Output\*\*: Successfully created administrator account, administrator account creation operation log.

### 1.31 Create Regular User Account

\*\*Function Number: FR-31\*\*

\*\*Description\*\*: Administrators can create new regular user accounts and set their permissions.

\*\*Input\*\*: Administrator ID, account name of the new regular user account, password, email address, permission settings.

\*\*Output\*\*: Successfully created regular user account, regular user account creation operation log.

### 1.32 Manage Folders

\*\*Function Number: FR-32\*\*

\*\*Description\*\*: Users can perform operations such as renaming, deleting, and moving folders.

\*\*Input\*\*: User ID, folder ID, operation type (such as rename, delete, move), target folder ID (for move operation).

\*\*Output\*\*: Updated folder information, folder management operation log.

### 1.33 Modify Archiving Policies

\*\*Function Number: FR-33\*\*

\*\*Description\*\*: Administrators can modify existing archiving policies.

\*\*Input\*\*: Administrator ID, archiving policy ID, updated rule name, trigger conditions, target folder.

\*\*Output\*\*: Updated archiving policy, archiving policy modification operation log.

### 1.34 Manage Backup Logs

\*\*Function Number: FR-34\*\*

\*\*Description\*\*: Administrators can perform operations such as viewing, exporting, and deleting backup logs.

\*\*Input\*\*: Administrator ID, operation type (such as view, export, delete), filtering conditions (such as time range, backup type, execution result, etc.).

\*\*Output\*\*: List of backup logs or exported backup log file, backup log management operation log.

### 1.35 Manage Restore Logs

\*\*Function Number: FR-35\*\*

\*\*Description\*\*: Administrators can perform operations such as viewing, exporting, and deleting restore logs.

\*\*Input\*\*: Administrator ID, operation type (such as view, export, delete), filtering conditions (such as time range, restore type, execution result, etc.).

\*\*Output\*\*: List of restore logs or exported restore log file, restore log management operation log.

### 1.36 View Schedule

\*\*Function Number: FR-36\*\*

\*\*Description\*\*: Users can view detailed information of schedules.

\*\*Input\*\*: User ID, schedule ID.

\*\*Output\*\*: Detailed information of the schedule (such as schedule title, time, location, participants, notes, etc.), view schedule operation log.

### 1.37 Add Schedule

\*\*Function Number: FR-37\*\*

\*\*Description\*\*: Users can create new schedules and set reminders.

\*\*Input\*\*: User ID, schedule title, start time, end time, location, participants, notes, reminder settings.

\*\*Output\*\*: Successfully created schedule, schedule creation operation log.

### 1.38 Delete Schedule

\*\*Function Number: FR-38\*\*

\*\*Description\*\*: Users can delete created schedules.

\*\*Input\*\*: User ID, schedule ID.

\*\*Output\*\*: Successfully deleted schedule, schedule deletion operation log.

### 1.39 Delete Backup

\*\*Function Number: FR-39\*\*

\*\*Description\*\*: Administrators can delete generated backup files.

\*\*Input\*\*: Administrator ID, backup file ID.

\*\*Output\*\*: Successfully deleted backup file, backup deletion operation log.