# Functional Requirement

1.1 Email Registration Function

Function Number: FR-01

Description: Users can create new email records, including fields such as sender, recipient, subject, content, and attachments. The system must verify the completeness of the email information and store it in the database.

Input: Email registration form, including fields such as sender, recipient, subject, content, and attachments.

Output: The email information is correctly stored in the system, the email status is updated to "Registered," and a relevant operation log is generated.

1.2 Email Sending Function

Function Number: FR-02

Description: Users can select registered emails and send them to specified recipients. The system must apply sending policies and record email sending logs.

Input: List of registered emails, selected email, recipient address, sending policy (e.g., email classification, priority, sending time, etc.).

Output: The email is successfully sent to the specified recipient, the email status is updated to "Sent," and an email sending log is generated.

1.3 Email Receiving Function

Function Number: FR-03

Description: After the system detects the arrival of new emails, it automatically processes the emails according to the user's receiving policy and stores the email information in the database.

Input: New email information, user-configured receiving policy.

Output: The email information is correctly stored in the system, the email status is updated to "Received," and a receiving operation log is generated.

1.4 Email Formatting Function

Function Number: FR-04

Description: Users can format registered emails, including using system-provided templates or custom formats to adjust the email content.

Input: Email to be formatted, formatting options (e.g., template selection, layout adjustment, content optimization, etc.).

Output: The email content is adjusted according to the user-specified format and saved, the email status is updated to "Formatted," and a formatting operation log is generated.

1.5 Email Search Function

Function Number: FR-05

Description: Users can search for registered emails based on conditions such as keywords, sender, recipient, date range, and status.

Input: Search criteria (e.g., keywords, sender, recipient, date range, status, etc.).

Output: A list of emails matching the search criteria, and a search operation log is generated.

1.6 Email Folder Organization Function

Function Number: FR-06

Description: Users can move or copy registered emails to specified folders and update the association between emails and folders.

Input: Emails to be organized, target folder.

Output: The email is correctly moved or copied to the specified folder, and an operation log for organizing email folders is generated.

1.7 Communication Group Management Function

Function Number: FR-07

Description: Users can create, edit, and delete communication groups and maintain the association between communication groups and contacts.

Input: Communication group name, description, contact list.

Output: Communication group information is correctly created, updated, or deleted, and a communication group management operation log is generated.

1.8 Add Contact Function

Function Number: FR-08

Description: Users can create new contacts and associate them with specified communication groups.

Input: Contact information (e.g., name, email address, phone number, associated communication group, etc.).

Output: Contact information is correctly stored in the system, and an operation log for adding a contact is generated.

1.9 Modify Contact Function

Function Number: FR-09

Description: Users can modify existing contact information and update the association with communication groups.

Input: Contact information to be modified, updated contact information.

Output: Contact information is correctly updated, and an operation log for modifying a contact is generated.

1.10 Delete Contact Function

Function Number: FR-10

Description: Users can delete existing contacts and update the association with communication groups.

Input: Contact to be deleted.

Output: Contact information is correctly deleted from the system, and an operation log for deleting a contact is generated.

1.11 Set Reminder Task Function

Function Number: FR-11

Description: Users can set reminder tasks, including selecting emails and setting reminder times and methods.

Input: Task to set a reminder for, reminder time, reminder method.

Output: The reminder task is successfully created, the system sends a reminder notification to the user at the specified time or condition, and an operation log for setting the reminder task is generated.

1.12 Manage Schedule Function

Function Number: FR-12

Description: Users can create, edit, and delete schedules and set reminder tasks.

Input: Schedule information (e.g., title, time, location, participants, etc.), reminder task (e.g., set reminder time, method, etc.).

Output: Schedule information is correctly created, updated, or deleted, the system sends a reminder notification to the user at the specified time or condition, and an operation log for managing schedules is generated.

1.13 Policy Formulation Function

Function Number: FR-13

Description: Users can formulate policies, including sending policies, archiving policies, backup policies, etc.

Input: Policy type (e.g., sending policy, archiving policy, backup policy, etc.), scope of application, rule settings.

Output: Policy information is correctly stored in the system, and an operation log for policy formulation is generated.

1.14 Email Archiving Function

Function Number: FR-14

Description: Users can archive registered emails to a specified storage location and update the email status.

Input: Email to be archived, storage location.

Output: The email information is correctly archived to the specified storage location, the email status is updated to "Archived," and an operation log for archiving emails is generated.

1.15 View Archived Email Function

Function Number: FR-15

Description: Users can view archived email information and perform further operations (such as restore, view details, etc.).

Input: Archived email to be viewed.

Output: The user successfully views the specified archived email content, and an operation log for viewing archived emails is generated.

1.16 Delete Archived Email Function

Function Number: FR-16

Description: Users can delete archived email information and update its status.

Input: Archived email to be deleted.

Output: The archived email information is correctly deleted from the system, and an operation log for deleting archived emails is generated.

1.17 Backup Management Function

Function Number: FR-17

Description: Administrators can create, view, and delete backup files and record backup logs.

Input: Backup parameters (e.g., backup type, storage path, backup scope, etc.).

Output: Backup files are correctly created, viewed, or deleted, and an operation log for backup management is generated.

1.18 Database Recovery Function

Function Number: FR-18

Description: Administrators can restore data from backup files to the system database and update the status of relevant data entities.

Input: Backup file to be restored, recovery parameters (e.g., recovery type, storage path, etc.).

Output: Data in the system database is successfully restored, and an operation log for database recovery is generated.

1.19 Backup Log Management Function

Function Number: FR-19

Description: System administrators can view, export, filter, and delete backup logs.

Input: Backup log entries, filter criteria (e.g., backup time, administrator ID, etc.).

Output: Backup log information is correctly viewed, exported, or deleted, and an operation log for backup log management is generated.

1.20 Delete Expired Email Function

Function Number: FR-20

Description: Administrators can delete expired emails that have been archived or backed up and update their status.

Input: Expired email to be deleted, deletion parameters (e.g., expiration time, deletion method, etc.).

Output: Expired email information is correctly deleted from the system, and an operation log for deleting expired emails is generated.

1.21 View Email Backup Record Function

Function Number: FR-21

Description: System administrators can view registered email backup records and export backup details.

Input: Backup record entries to be viewed, export format (e.g., CSV, Excel, etc.).

Output: System administrators successfully view the specified email backup record information, and an operation log for viewing email backup records is generated.