# Functional Requirement

1.1 Register Email Function

Function Number: FR-01

Description: Users can register newly received emails into the system. The system must support pulling detailed email information from the user-specified email account and automatically archive emails according to the archiving policy.

Input: User login credentials, detailed information of the new email (sender, recipient, subject, content, timestamp, etc.).

Output: The newly registered email record in the database, update relevant communication groups and schedule reminders (if any), and log the registration operation.

1.2 Send Email Function

Function Number: FR-02

Description: Users can send emails to the target email account. The system must verify whether the information entered by the user meets the format requirements and send the email to the target email server through the configured email account.

Input: Recipient, CC recipient, subject, content, attachments, and other fields of the email.

Output: Notification of successful email sending, the email displayed in the "Sent Emails" module, and log of the sending operation.

1.3 Receive Email Function

Function Number: FR-03

Description: The system can automatically or manually receive new emails, store them in the database, and update relevant communication groups, contacts, schedules, or reminders (if any), while logging the receiving operation.

Input: User login credentials, email account information.

Output: New email records stored in the database, updated communication group and contact information (if any), and log of the receiving operation.

1.4 Format Email Function

Function Number: FR-04

Description: Users can format the email content. The system must support user-defined formatting operations, update the email records in the email stream, and log the formatting operation.

Input: User login credentials, ID of the email to be formatted, formatting settings (font style, layout, etc.).

Output: The formatted email record stored in the database, updated email list with a notification of successful formatting, and log of the formatting operation.

1.5 Search Email Function

Function Number: FR-05

Description: Users can search for emails using various criteria. The system must support complex search conditions (such as sender, recipient, subject, content, time range, etc.) and return a list of matching emails.

Input: User login credentials, search criteria (sender, recipient, subject, content, time range, etc.).

Output: List of matching emails, log of the search operation.

1.6 Organize Email Folders Function

Function Number: FR-06

Description: Users can categorize and store emails in corresponding folders. The system must support email moving operations and automatically archive emails according to the archiving policy.

Input: User login credentials, ID of the email to be moved, target folder ID.

Output: Email categorized and archived in the target folder, updated email records in the email stream, and log of the operation.

1.7 Manage Communication Groups Function

Function Number: FR-07

Description: Users can create, update, delete, or query communication groups. The system must support CRUD operations on communication groups and update relevant contact information.

Input: User login credentials, operation type (create, edit, delete, query), communication group information.

Output: Updated or queried communication group information, log of the operation.

1.8 Add Contact Function

Function Number: FR-08

Description: Users can add new contacts and add them to communication groups. The system must support the addition of contacts and update the communication group information.

Input: User login credentials, contact information (name, email address, phone number, notes, etc.), communication group ID (if any).

Output: New contact information stored in the database, updated communication group information (if any), log of the operation.

1.9 Modify Contact Function

Function Number: FR-09

Description: Users can modify existing contact information and adjust their associated communication groups. The system must support the modification of contacts and update the communication group information.

Input: User login credentials, ID of the contact to be modified, updated contact information, communication group ID (if any).

Output: Updated contact information, updated communication group information (if any), log of the operation.

1.10 Delete Contact Function

Function Number: FR-10

Description: Users can delete existing contact information and remove them from communication groups. The system must support the deletion of contacts and update the communication group information.

Input: User login credentials, ID of the contact to be deleted, communication group ID (if any).

Output: Deleted contact information, updated communication group information (if any), log of the operation.

1.11 Manage Email Account Function

Function Number: FR-11

Description: Users can view, edit, or delete email account information. The system must support the management of email accounts and update the email account configuration.

Input: User login credentials, email account ID, operation type (view, edit, delete), email account configuration information.

Output: Updated or deleted email account information, log of the operation.

1.12 Set Archiving Policy Function

Function Number: FR-12

Description: Users can define archiving policies and apply them to specific email accounts or folders. The system must support the setting, querying, and deletion of archiving policies.

Input: User login credentials, policy name, trigger conditions (such as email quantity, time interval, keyword match, etc.), target folder ID.

Output: Successful archiving policy setting, log of the operation.

1.13 Execute Email Archiving Function

Function Number: FR-13

Description: The system can automatically or manually execute email archiving operations, archive emails to the specified folder according to the archiving policy, and log the archiving operation.

Input: User login credentials, email ID, archiving policy ID.

Output: Successful email archiving, updated email records in the email stream, log of the operation.

1.14 Capture Email Flow Function

Function Number: FR-14

Description: The system can automatically or manually capture email flow information, store email information in the database, and automatically archive emails according to the archiving policy.

Input: User login credentials, email account ID, archiving policy ID.

Output: Successful capture of email flow information, updated email flow records, log of the operation.

1.15 Manage Backup Function

Function Number: FR-15

Description: Users can configure and manage the backup operations of email accounts. The system must support the generation, restoration, and logging of backup files.

Input: User login credentials, operation type (backup, restore), email account ID, backup storage path.

Output: Successful generation of backup file or successful restore operation, log of the operation.

1.16 View Backup Log Function

Function Number: FR-16

Description: Users can view the log records of email account backup operations. The system must support the retrieval and display of backup logs.

Input: User login credentials, query conditions (such as time range, operation type, etc.).

Output: Retrieval results of backup logs, log of the viewing operation.

1.17 Manage Restore Log Function

Function Number: FR-17

Description: Users can view the log records of email account restore operations and export these log information. The system must support the retrieval, display, and export of restore logs.

Input: User login credentials, query conditions (such as time range, operation type, etc.).

Output: Retrieval results of restore logs, exported restore log information, log of the operation.