# Functional Requirement

# Chapter 1: Functional Requirements  
  
## 1.1 Email Sending Function   
\*\*Function ID\*\*: FR-01   
\*\*Description\*\*: Users can compose and send emails to individuals, shared accounts, or distribution groups. The system validates recipient information and sends the email via the configured email server.   
\*\*Input\*\*: Email content (subject, body, attachments), recipient list (contacts, email addresses, distribution groups).   
\*\*Output\*\*: Sent email stored in the system and recipient inboxes; confirmation message displayed to the user.  
  
## 1.2 Email Receiving Function   
\*\*Function ID\*\*: FR-02   
\*\*Description\*\*: The system checks the email server for new messages and processes incoming emails to the user's inbox or shared account inbox.   
\*\*Input\*\*: Incoming email data from the email server.   
\*\*Output\*\*: Email displayed in the user’s inbox or shared account inbox; email logged in the archive for compliance.  
  
## 1.3 Email Formatting Function   
\*\*Function ID\*\*: FR-03   
\*\*Description\*\*: Users can format email content with font style, size, color, and other text formatting options before sending.   
\*\*Input\*\*: Draft or composed email content.   
\*\*Output\*\*: Formatted email content; visual confirmation of formatting applied.  
  
## 1.4 Contact Management Function   
\*\*Function ID\*\*: FR-04   
\*\*Description\*\*: Users can add, edit, or delete contacts in their personal or shared contact list. The system validates contact data and updates related email or distribution group configurations.   
\*\*Input\*\*: Contact details (name, email, phone, etc.).   
\*\*Output\*\*: Updated contact list; confirmation message displayed to the user.  
  
## 1.5 Distribution Group Creation Function   
\*\*Function ID\*\*: FR-05   
\*\*Description\*\*: Users or administrators can create a new distribution group by selecting existing contacts or manually adding email addresses.   
\*\*Input\*\*: Group name, description, and member list (contacts or email addresses).   
\*\*Output\*\*: New distribution group stored in the system; confirmation message displayed.  
  
## 1.6 Distribution Group Update Function   
\*\*Function ID\*\*: FR-06   
\*\*Description\*\*: Users or administrators can modify the name, description, or member list of an existing distribution group.   
\*\*Input\*\*: Updated group name, description, and/or member list.   
\*\*Output\*\*: Updated distribution group stored in the database; confirmation message displayed.  
  
## 1.7 Distribution Group Deletion Function   
\*\*Function ID\*\*: FR-07   
\*\*Description\*\*: Users or administrators can delete a distribution group after confirming the action.   
\*\*Input\*\*: Selected distribution group.   
\*\*Output\*\*: Distribution group removed from the system; confirmation message displayed.  
  
## 1.8 Email Account Management Function   
\*\*Function ID\*\*: FR-08   
\*\*Description\*\*: Users and administrators can create, update, or delete email accounts. The system validates account information and ensures no active dependencies prevent deletion.   
\*\*Input\*\*: Email account details (email address, password, type).   
\*\*Output\*\*: Updated or deleted email account; confirmation message displayed.  
  
## 1.9 Shared Account Management Function   
\*\*Function ID\*\*: FR-09   
\*\*Description\*\*: Administrators can manage shared accounts by assigning access rights and modifying configurations.   
\*\*Input\*\*: Shared account details, user/group access rights.   
\*\*Output\*\*: Updated or deleted shared account; access rights updated in the system.  
  
## 1.10 Email Archiving Function   
\*\*Function ID\*\*: FR-10   
\*\*Description\*\*: Users or administrators can archive selected emails to the system archive. The system ensures that emails are moved and metadata is preserved.   
\*\*Input\*\*: Selected email(s) from inbox or folders.   
\*\*Output\*\*: Archived email(s) in the archive database; confirmation message displayed.  
  
## 1.11 Personal Archive Search Function   
\*\*Function ID\*\*: FR-11   
\*\*Description\*\*: Users can search their personal archive using criteria such as keywords, date range, sender, or recipient.   
\*\*Input\*\*: Search criteria (keywords, dates, sender/recipient).   
\*\*Output\*\*: Matching archived emails displayed with metadata; selected emails can be restored.  
  
## 1.12 Server Archive Management Function   
\*\*Function ID\*\*: FR-12   
\*\*Description\*\*: Administrators can manage the server-side archive, including backing up, purging expired emails, and restoring archived data.   
\*\*Input\*\*: Server archive management options (backup, purge, restore).   
\*\*Output\*\*: Updated server archive; logs of the action; confirmation message displayed.  
  
## 1.13 Email Flow Capture Function   
\*\*Function ID\*\*: FR-13   
\*\*Description\*\*: Administrators can configure the system to capture the flow of emails, including sender, recipient, timestamps, and routing information.   
\*\*Input\*\*: Scope (user, shared account, distribution group).   
\*\*Output\*\*: Captured email flow data stored in the system; administrator can view or export the data.  
  
## 1.14 Retention Policy Application Function   
\*\*Function ID\*\*: FR-14   
\*\*Description\*\*: Administrators can apply retention policies to email accounts or shared accounts, defining how long emails should be retained.   
\*\*Input\*\*: Selected retention policy and target email accounts or shared accounts.   
\*\*Output\*\*: Policy applied to the selected accounts; logs of the action; confirmation message displayed.  
  
## 1.15 Expired Email Management Function   
\*\*Function ID\*\*: FR-15   
\*\*Description\*\*: Users or administrators can manage expired emails by either archiving or deleting them based on retention policy rules.   
\*\*Input\*\*: List of expired emails; action (archive or delete).   
\*\*Output\*\*: Emails either archived or deleted; logs of the action; confirmation message displayed.  
  
## 1.16 Email Recovery Function   
\*\*Function ID\*\*: FR-16   
\*\*Description\*\*: Users or administrators can recover archived emails, restoring them to the inbox or a specified folder.   
\*\*Input\*\*: Selected email(s) from the archive.   
\*\*Output\*\*: Restored email(s) in the mailbox; logs of the recovery action; confirmation message displayed.  
  
## 1.17 Event Creation Function   
\*\*Function ID\*\*: FR-17   
\*\*Description\*\*: Users can create calendar events by specifying a title, date, time, and participants. Email invitations are automatically sent to participants.   
\*\*Input\*\*: Event title, date, time, description, and participant list.   
\*\*Output\*\*: Event added to the user’s calendar; invitations sent to participants; confirmation message displayed.  
  
## 1.18 Event Update Function   
\*\*Function ID\*\*: FR-18   
\*\*Description\*\*: Users can update an existing event, modifying details such as title, date, time, or participants. Updated notifications are sent to participants if configured.   
\*\*Input\*\*: Updated event details and participant list.   
\*\*Output\*\*: Updated event stored in the database; notification sent to participants; confirmation message displayed.  
  
## 1.19 Event Deletion Function   
\*\*Function ID\*\*: FR-19   
\*\*Description\*\*: Users can delete an event after confirmation. Cancellation notifications are sent to participants if configured.   
\*\*Input\*\*: Selected event to delete.   
\*\*Output\*\*: Event removed from the calendar; cancellation notifications sent; confirmation message displayed.  
  
## 1.20 Calendar View Function   
\*\*Function ID\*\*: FR-20   
\*\*Description\*\*: Users can view their personal or shared calendar in a selected time frame (daily, weekly, monthly).   
\*\*Input\*\*: Time frame selection (daily, weekly, monthly).   
\*\*Output\*\*: Displayed calendar with scheduled events; logs of the view action.  
  
## 1.21 Calendar Sharing Function   
\*\*Function ID\*\*: FR-21   
\*\*Description\*\*: Users or administrators can share a personal calendar with other users, shared accounts, or distribution groups.   
\*\*Input\*\*: Selected calendar and recipients with access permissions.   
\*\*Output\*\*: Shared calendar accessible to recipients; confirmation message displayed.  
  
## 1.22 Task Creation Function   
\*\*Function ID\*\*: FR-22   
\*\*Description\*\*: Users can create tasks with a title, description, due date, and optional calendar event linkage.   
\*\*Input\*\*: Task title, description, due date, and optional event linkage.   
\*\*Output\*\*: Task added to the task list and optionally linked to a calendar event.  
  
## 1.23 Task Update Function   
\*\*Function ID\*\*: FR-23   
\*\*Description\*\*: Users can update task details, such as status, due date, or progress.   
\*\*Input\*\*: Updated task details.   
\*\*Output\*\*: Task updated in the database; confirmation message displayed.  
  
## 1.24 Task Deletion Function   
\*\*Function ID\*\*: FR-24   
\*\*Description\*\*: Users or administrators can delete a task after confirmation.   
\*\*Input\*\*: Selected task to delete.   
\*\*Output\*\*: Task removed from the task list; logs of the deletion action.  
  
## 1.25 Task Progress Viewing Function   
\*\*Function ID\*\*: FR-25   
\*\*Description\*\*: Users can view the progress of a task, including completion percentage and status.   
\*\*Input\*\*: Selected task.   
\*\*Output\*\*: Task progress displayed in a structured format; logs of the view action.  
  
## 1.26 User Permission Management Function   
\*\*Function ID\*\*: FR-26   
\*\*Description\*\*: Administrators can manage user permissions, enabling or restricting access to specific resources or actions.   
\*\*Input\*\*: Selected user and permissions (read, write, manage).   
\*\*Output\*\*: Updated user permissions in the database; confirmation message displayed.  
  
## 1.27 Compliance Report Generation Function   
\*\*Function ID\*\*: FR-27   
\*\*Description\*\*: Administrators can generate compliance reports based on defined criteria, such as user activity, retention policy compliance, and archive status.   
\*\*Input\*\*: Report scope, time frame, and filters.   
\*\*Output\*\*: Compliance report in selected format (PDF, CSV); logs of the action.  
  
## 1.28 Compliance Report Viewing Function   
\*\*Function ID\*\*: FR-28   
\*\*Description\*\*: Administrators can view existing compliance reports, including their metadata and contents.   
\*\*Input\*\*: Selected compliance report.   
\*\*Output\*\*: Compliance report displayed in a structured format; logs of the view action.  
  
## 1.29 Compliance Report Deletion Function   
\*\*Function ID\*\*: FR-29   
\*\*Description\*\*: Administrators can delete compliance reports that are no longer needed and not under a retention policy.   
\*\*Input\*\*: Selected compliance report.   
\*\*Output\*\*: Compliance report removed from the system; logs of the action; confirmation message displayed.  
  
## 1.30 Email Flow Management Function   
\*\*Function ID\*\*: FR-30   
\*\*Description\*\*: Administrators can create, edit, or delete email flow configurations to define how emails are processed or routed.   
\*\*Input\*\*: Email flow configuration details (name, rules, scope).   
\*\*Output\*\*: Updated email flow stored in the database; logs of the action; confirmation message displayed.  
  
## 1.31 Retention Policy Management Function   
\*\*Function ID\*\*: FR-31   
\*\*Description\*\*: Administrators can create, update, or delete retention policies that define the duration for which emails should be retained.   
\*\*Input\*\*: Retention policy details (name, duration, conditions).   
\*\*Output\*\*: Updated or deleted retention policy; logs of the action; confirmation message displayed.  
  
## 1.32 Distribution Group Viewing Function   
\*\*Function ID\*\*: FR-32   
\*\*Description\*\*: Users or administrators can view the details of a distribution group, including name, description, and member list.   
\*\*Input\*\*: Selected distribution group.   
\*\*Output\*\*: Group details displayed in the system; logs of the view action.  
  
## 1.33 System Usage Monitoring Function   
\*\*Function ID\*\*: FR-33   
\*\*Description\*\*: Administrators can monitor system usage to assess email and calendar activity across users and shared accounts.   
\*\*Input\*\*: Time frame and monitoring scope (users, shared accounts, groups).   
\*\*Output\*\*: System usage report generated; logs of the action; confirmation message displayed.