# Functional Requirement

# Chapter 1: Functional Requirements  
  
## 1.1 Email Creation Function   
\*\*Function ID:\*\* FR-01   
\*\*Description:\*\* Administrators can create new emails using a dedicated form. The email must be associated with an Email Account or Shared Account.   
\*\*Input:\*\* Subject, body, recipient(s), sender (Email Account or Shared Account).   
\*\*Output:\*\* A new Email entity saved in the system with the associated Email Account or Shared Account.  
  
## 1.2 Email Sending Function   
\*\*Function ID:\*\* FR-02   
\*\*Description:\*\* Administrators can send an email to specified recipients using the selected Email Account or Shared Account.   
\*\*Input:\*\* Selected Email entity, Email Account or Shared Account, configured Email Flow and Policy rules.   
\*\*Output:\*\* The email is sent to recipients, and the Email entity status is updated to "Sent".  
  
## 1.3 Email Receiving Function   
\*\*Function ID:\*\* FR-03   
\*\*Description:\*\* The system receives and processes incoming emails according to Email Flow and Policy configurations, and stores them in the appropriate folder (e.g., inbox, spam, archive).   
\*\*Input:\*\* Incoming email via Email Flow, associated Email Account or Shared Account.   
\*\*Output:\*\* A new Email entity stored in the system, optionally archived or flagged as Expired Email.  
  
## 1.4 Email Viewing Function   
\*\*Function ID:\*\* FR-04   
\*\*Description:\*\* Administrators can view the content of a selected email.   
\*\*Input:\*\* Selected Email entity from inbox or other folders.   
\*\*Output:\*\* Display of the Email content, including subject, body, sender, and recipient information.  
  
## 1.5 Email Reply Function   
\*\*Function ID:\*\* FR-05   
\*\*Description:\*\* Administrators can create and send a reply email based on an existing email.   
\*\*Input:\*\* Selected Email entity, reply content, Email Account or Shared Account for sending.   
\*\*Output:\*\* A new Email entity saved as a reply, associated with the original email and ready to be sent.  
  
## 1.6 Email Forwarding Function   
\*\*Function ID:\*\* FR-06   
\*\*Description:\*\* Administrators can create and send a forwarded email based on an existing email.   
\*\*Input:\*\* Selected Email entity, new recipient(s), forwarding message content, Email Account or Shared Account for sending.   
\*\*Output:\*\* A new Email entity saved as a forward, associated with the original email and ready to be sent.  
  
## 1.7 Email Deletion Function   
\*\*Function ID:\*\* FR-07   
\*\*Description:\*\* Administrators can delete an email, either permanently or move it to the Archive or Expired Email folder, depending on system settings.   
\*\*Input:\*\* Selected Email entity, system settings for deletion behavior.   
\*\*Output:\*\* Email removed from its current folder and optionally moved to Archive or Expired Email folder.  
  
## 1.8 Email Archiving Function   
\*\*Function ID:\*\* FR-08   
\*\*Description:\*\* Administrators can archive an email to either a local Archive folder or a Server Archive, as per system settings.   
\*\*Input:\*\* Selected Email entity, system settings for archive destination.   
\*\*Output:\*\* Email moved to Archive or Server Archive folder and marked as archived.  
  
## 1.9 Email Expiry Setting Function   
\*\*Function ID:\*\* FR-09   
\*\*Description:\*\* Administrators can set an expiry date for an email. The system will automatically move it to the Expired Email folder on the set date.   
\*\*Input:\*\* Selected Email entity, expiry date, system Policy for retention rules.   
\*\*Output:\*\* Email marked with an expiry date and moved to the Expired Email folder at expiry.  
  
## 1.10 Expired Email Management Function   
\*\*Function ID:\*\* FR-10   
\*\*Description:\*\* Administrators can manage expired emails by deleting them permanently or moving them to the Server Archive.   
\*\*Input:\*\* Selected Expired Email entity, action (e.g., delete or archive), system Policy for handling expired emails.   
\*\*Output:\*\* Expired Email entity either deleted or moved to the Server Archive.  
  
## 1.11 Email Recovery Function   
\*\*Function ID:\*\* FR-11   
\*\*Description:\*\* Administrators can recover an email from the Archive or Server Archive and restore it to the inbox or a designated folder.   
\*\*Input:\*\* Selected Archive or Server Archive email, RecoveryRequest entity.   
\*\*Output:\*\* Email restored to the user's inbox or a designated folder, and its status updated.  
  
## 1.12 Distribution Group Management Function   
\*\*Function ID:\*\* FR-12   
\*\*Description:\*\* Administrators can create, update, or delete a Distribution Group and manage its members.   
\*\*Input:\*\* Distribution Group details (name, description, members), associated Email Account or Shared Account.   
\*\*Output:\*\* Updated Distribution Group entity in the system, with associated members and accounts.  
  
## 1.13 Distribution Group Member Addition Function   
\*\*Function ID:\*\* FR-13   
\*\*Description:\*\* Administrators can add one or more members (Contacts or Email Accounts) to a Distribution Group.   
\*\*Input:\*\* Distribution Group entity, list of Contacts or Email Accounts to add.   
\*\*Output:\*\* Updated Distribution Group with new members added.  
  
## 1.14 Distribution Group Member Removal Function   
\*\*Function ID:\*\* FR-14   
\*\*Description:\*\* Administrators can remove one or more members from a Distribution Group.   
\*\*Input:\*\* Distribution Group entity, list of Contacts or Email Accounts to remove.   
\*\*Output:\*\* Updated Distribution Group with members removed.  
  
## 1.15 Email Account Management Function   
\*\*Function ID:\*\* FR-15   
\*\*Description:\*\* Administrators can create, update, or delete Email Accounts.   
\*\*Input:\*\* Email Account details (username, password, domain, etc.), Policy for account creation rules.   
\*\*Output:\*\* Updated list of Email Accounts, with new or modified entries.  
  
## 1.16 Shared Account Management Function   
\*\*Function ID:\*\* FR-16   
\*\*Description:\*\* Administrators can register, update, or delete Shared Accounts and manage their access permissions.   
\*\*Input:\*\* Shared Account details, associated Email Accounts, Policy for access control.   
\*\*Output:\*\* Updated Shared Account entity in the system.  
  
## 1.17 Calendar Creation Function   
\*\*Function ID:\*\* FR-17   
\*\*Description:\*\* Administrators can create a new calendar and optionally associate it with a Contact or Email.   
\*\*Input:\*\* Calendar name, description, associated Contact or Email Account.   
\*\*Output:\*\* New Calendar entity stored in the system.  
  
## 1.18 Calendar Update Function   
\*\*Function ID:\*\* FR-18   
\*\*Description:\*\* Administrators can update an existing calendar's name, description, or associated entities.   
\*\*Input:\*\* Selected Calendar entity, updated details.   
\*\*Output:\*\* Updated Calendar entity in the system.  
  
## 1.19 Calendar Deletion Function   
\*\*Function ID:\*\* FR-19   
\*\*Description:\*\* Administrators can delete a calendar, with associated events either deleted or moved based on system settings.   
\*\*Input:\*\* Selected Calendar entity, system settings for event handling.   
\*\*Output:\*\* Calendar removed from the system and related events processed.  
  
## 1.20 Event Scheduling Function   
\*\*Function ID:\*\* FR-20   
\*\*Description:\*\* Administrators can schedule a new event and optionally send an email invitation to attendees.   
\*\*Input:\*\* Event details (title, date, time, location, attendees), Email Account or Shared Account for sending invitations.   
\*\*Output:\*\* New Event entity created and associated with the Calendar and Email.  
  
## 1.21 Event Modification Function   
\*\*Function ID:\*\* FR-21   
\*\*Description:\*\* Administrators can modify the details of an existing event and update any related Email or Contact associations.   
\*\*Input:\*\* Selected Event entity, updated details.   
\*\*Output:\*\* Updated Event entity in the system with associated data modified.  
  
## 1.22 Event Cancellation Function   
\*\*Function ID:\*\* FR-22   
\*\*Description:\*\* Administrators can cancel an event and optionally send a cancellation notification via Email.   
\*\*Input:\*\* Selected Event entity, Email Account or Shared Account for sending notification.   
\*\*Output:\*\* Event marked as canceled, and cancellation email sent.  
  
## 1.23 Event Detail Viewing Function   
\*\*Function ID:\*\* FR-23   
\*\*Description:\*\* Administrators can view the details of an event, including associated Contact and Email data.   
\*\*Input:\*\* Selected Event entity.   
\*\*Output:\*\* Display of event details including title, time, location, and related data.  
  
## 1.24 Contact Creation Function   
\*\*Function ID:\*\* FR-24   
\*\*Description:\*\* Administrators can create a new Contact and optionally associate it with an Email Account or Shared Account.   
\*\*Input:\*\* Contact details (name, email, phone, etc.), associated Email Account or Shared Account.   
\*\*Output:\*\* New Contact entity stored in the system.  
  
## 1.25 Contact Update Function   
\*\*Function ID:\*\* FR-25   
\*\*Description:\*\* Administrators can update an existing Contact's information and its associations.   
\*\*Input:\*\* Selected Contact entity, updated details.   
\*\*Output:\*\* Updated Contact entity with modified information.  
  
## 1.26 Contact Deletion Function   
\*\*Function ID:\*\* FR-26   
\*\*Description:\*\* Administrators can delete a Contact, with any associated Email or Shared Account links removed or updated.   
\*\*Input:\*\* Selected Contact entity, system settings for dependency handling.   
\*\*Output:\*\* Contact removed from the system and related data processed.  
  
## 1.27 Contact Viewing Function   
\*\*Function ID:\*\* FR-27   
\*\*Description:\*\* Administrators can view the details of a selected Contact, including associated Email or Shared Account information.   
\*\*Input:\*\* Selected Contact entity.   
\*\*Output:\*\* Display of Contact details including name, email, phone, and related data.  
  
## 1.28 Contact Group Management Function   
\*\*Function ID:\*\* FR-28   
\*\*Description:\*\* Administrators can manage Contact Groups by creating, updating, or deleting them and modifying their members.   
\*\*Input:\*\* Contact Group details, list of Contacts to add or remove.   
\*\*Output:\*\* Updated Contact Group entity in the system with new members or details.  
  
## 1.29 Archive Search Function   
\*\*Function ID:\*\* FR-29   
\*\*Description:\*\* Administrators can search for archived emails in the Archive or Server Archive using filters or search terms.   
\*\*Input:\*\* Search query, filters (e.g., date, sender, subject).   
\*\*Output:\*\* Retrieved and displayed archived Email entities matching the query.  
  
## 1.30 Archive Policy Configuration Function   
\*\*Function ID:\*\* FR-30   
\*\*Description:\*\* Administrators can create, update, or delete Archive Policies, which define how emails should be archived based on rules.   
\*\*Input:\*\* Archive Policy details (name, retention period, archive destination, expiry action).   
\*\*Output:\*\* Updated Archive Policy entity in the system.  
  
## 1.31 Server Archive Configuration Function   
\*\*Function ID:\*\* FR-31   
\*\*Description:\*\* Administrators can configure the Server Archive, including associating it with Email Accounts or Shared Accounts and setting its compliance status.   
\*\*Input:\*\* Server Archive settings, associated Email Accounts or Shared Accounts.   
\*\*Output:\*\* Updated Server Archive entity with new configuration applied.  
  
## 1.32 Email Flow Capture Function   
\*\*Function ID:\*\* FR-32   
\*\*Description:\*\* The system captures and records email flows (incoming, outgoing, internal) associated with Email Accounts or Shared Accounts.   
\*\*Input:\*\* Email communication data, Email Account or Shared Account.   
\*\*Output:\*\* New EmailFlow entity stored in the system.  
  
## 1.33 Compliance Monitoring Function   
\*\*Function ID:\*\* FR-33   
\*\*Description:\*\* The system scans and evaluates emails against configured compliance policies to detect violations.   
\*\*Input:\*\* Email entities, Policy rules for compliance.   
\*\*Output:\*\* ComplianceReport entity with details of compliance violations.  
  
## 1.34 Compliance Report Management Function   
\*\*Function ID:\*\* FR-34   
\*\*Description:\*\* Administrators can view, modify, or delete Compliance Reports.   
\*\*Input:\*\* Compliance Report entity, modifications or deletion confirmation.   
\*\*Output:\*\* Updated or deleted Compliance Report entity.  
  
## 1.35 Recovery Request Processing Function   
\*\*Function ID:\*\* FR-35   
\*\*Description:\*\* Administrators can approve, deny, or delete Recovery Requests for restoring archived emails.   
\*\*Input:\*\* RecoveryRequest entity, action (approve, deny, delete).   
\*\*Output:\*\* Updated RecoveryRequest entity and restored email if approved.  
  
## 1.36 User Management Function   
\*\*Function ID:\*\* FR-36   
\*\*Description:\*\* Administrators can create, update, or delete user accounts and manage their roles and permissions.   
\*\*Input:\*\* User details, role, permissions, associated Email Accounts or Shared Accounts.   
\*\*Output:\*\* Updated User entity in the system.  
  
## 1.37 Administrator Management Function   
\*\*Function ID:\*\* FR-37   
\*\*Description:\*\* Administrators can manage other administrators by creating, updating, or deleting their roles and permissions.   
\*\*Input:\*\* Admin details, role, permissions, associated Email Accounts or Shared Accounts.   
\*\*Output:\*\* Updated Administrator entity in the system.  
  
## 1.38 Email Sharing Function   
\*\*Function ID:\*\* FR-38   
\*\*Description:\*\* Administrators can share an email with other users or groups and record the action.   
\*\*Input:\*\* Selected Email entity, recipient(s), sharing method (e.g., via email or calendar event).   
\*\*Output:\*\* Email marked as shared, and sharing event logged in the system.  
  
## 1.39 Email Expiry Handling Function   
\*\*Function ID:\*\* FR-39   
\*\*Description:\*\* The system automatically processes emails that have reached their expiry date, moving them to the Expired Email folder or deleting them.   
\*\*Input:\*\* Email with expiry date set, system settings for expiry handling.   
\*\*Output:\*\* Email moved to Expired Email folder or deleted, with logs updated.  
  
## 1.40 Event Record Management Function   
\*\*Function ID:\*\* FR-40   
\*\*Description:\*\* Administrators can manage Event Records by creating, updating, or deleting them.   
\*\*Input:\*\* EventRecord details, associated Calendar, Email, or Contact.   
\*\*Output:\*\* Updated or deleted EventRecord entity in the system.