# Functional Requirement

1.1 Email Creation Function   
Function ID: FR-01   
Description: Administrators can create new emails by selecting a recipient Contact, entering subject and content, and associating the email with a valid Account.   
Input: Recipient Contact details, email subject, email content, and associated Account ID.   
Output: A new Email entity with the status "Draft" or "Sent", stored in the Email Archive.   
  
1.2 Email Sending Function   
Function ID: FR-02   
Description: Administrators can send a selected email to the associated Contact. The system updates the email status and logs the sending action.   
Input: Selected Email ID, recipient Contact details, and associated Account ID.   
Output: The Email status is updated to "Sent", and a record is added to the Email Log.   
  
1.3 Email Receiving Function   
Function ID: FR-03   
Description: The system automatically detects and stores incoming emails in the Email Archive, associating them with the appropriate Contact and Account.   
Input: Incoming email data (sender, content, timestamp, etc.).   
Output: A new Email entity with the status "Received", stored in the Email Archive and associated with a Contact and Account.   
  
1.4 Email Reading Function   
Function ID: FR-04   
Description: Administrators can view the content of a selected email along with its associated Contact and Account details. The system logs the read action and updates the email's read status.   
Input: Selected Email ID.   
Output: Email content and metadata displayed to the Administrator; the Email status is updated to "Read", and a read log entry is added.   
  
1.5 Email Deletion Function   
Function ID: FR-05   
Description: Administrators can delete an email from the system. The system verifies the selection and logs the deletion action.   
Input: Selected Email ID.   
Output: The Email is removed from the system; a deletion log entry is added to the Email Log.   
  
1.6 Email Archiving Function   
Function ID: FR-06   
Description: Administrators can archive an email to ensure long-term storage and compliance. The system updates the email status and logs the archiving action.   
Input: Selected Email ID and archiving reason (optional).   
Output: The Email status is updated to "Archived", and a corresponding Archive Record is created in the Email Archive.   
  
1.7 Email Recovery Function   
Function ID: FR-07   
Description: Administrators can recover an archived email and return it to the inbox or sent items. The system updates the email status and logs the recovery action.   
Input: Selected Email ID from the Email Archive.   
Output: The Email is moved back to its original location with status "Recovered", and a recovery log entry is added.   
  
1.8 Email Formatting Function   
Function ID: FR-08   
Description: Administrators can apply formatting rules (font style, size, color, layout) to an email using a Format Template.   
Input: Selected Email ID and formatting rules from a Format Template.   
Output: The Email is updated with the applied formatting, and the formatting changes are stored in the Email Archive.   
  
1.9 Contact Creation Function   
Function ID: FR-09   
Description: Administrators can create new Contacts and associate them with a valid Account.   
Input: Contact name, email address, phone number, address, and associated Account ID.   
Output: A new Contact entity stored in the system and linked to a valid Account.   
  
1.10 Contact Update Function   
Function ID: FR-10   
Description: Administrators can modify the details of an existing Contact, and the changes are logged.   
Input: Selected Contact ID and updated Contact details.   
Output: The Contact entity is updated in the system, and an update log entry is added.   
  
1.11 Contact Deletion Function   
Function ID: FR-11   
Description: Administrators can delete a Contact from the system. The system updates related Email records and logs the deletion action.   
Input: Selected Contact ID.   
Output: The Contact is removed from the system; related Email records are updated, and a deletion log entry is added.   
  
1.12 Contact Viewing Function   
Function ID: FR-12   
Description: Administrators can view the details of an existing Contact, including their associated Account.   
Input: Selected Contact ID.   
Output: Contact details displayed to the Administrator, and a view log entry is added.   
  
1.13 Account Management Function   
Function ID: FR-13   
Description: Administrators can create, update, or delete an Account. The system ensures all associated Emails and Contacts are updated accordingly.   
Input: Account details for creation, update, or deletion.   
Output: Account entity is created, updated, or deleted in the system; related entities are adjusted, and the action is logged.   
  
1.14 Account Update Function   
Function ID: FR-14   
Description: Administrators can update an existing Account's information, and the system logs the update and reflects changes in related entities.   
Input: Selected Account ID and updated Account details.   
Output: Account entity is updated in the system; related Emails and Contacts are updated as necessary, and an update log entry is added.   
  
1.15 Account Deletion Function   
Function ID: FR-15   
Description: Administrators can delete an Account. The system verifies for active dependencies and updates or disassociates related Contacts and Emails.   
Input: Selected Account ID.   
Output: The Account is deleted from the system; related Contacts and Emails are updated or disassociated, and a deletion log entry is added.   
  
1.16 Account Viewing Function   
Function ID: FR-16   
Description: Administrators can view the details of an Account and its associated Contacts.   
Input: Selected Account ID.   
Output: Account details and associated Contacts are displayed to the Administrator, and a view log entry is added.   
  
1.17 Archive Record Management Function   
Function ID: FR-17   
Description: Administrators can create, update, or delete Archive Records for archived Emails. The system logs all actions and updates the Email Archive accordingly.   
Input: Archive Record details for creation, update, or deletion.   
Output: Archive Record is created, updated, or deleted in the system; the Email Archive is updated if necessary, and the action is logged.   
  
1.18 Compliance Audit Function   
Function ID: FR-18   
Description: Administrators can perform a compliance audit to check emails against data privacy and content policies. The system flags non-compliant emails and generates a compliance report.   
Input: Audit criteria (time range, filters, etc.).   
Output: Compliance audit results displayed to the Administrator, including flagged emails; a Compliance Log is updated with audit details.   
  
1.19 Archive Log Viewing Function   
Function ID: FR-19   
Description: Administrators can view logs of archiving and recovery actions. The system supports filtering by time range and other audit criteria.   
Input: Time range or filter criteria for archive logs.   
Output: Archive logs displayed to the Administrator, including email details, action timestamps, and associated entities; the view is logged.   
  
1.20 Administrator Log Viewing Function   
Function ID: FR-20   
Description: Administrators can view logs of their own actions and other administrators' actions for auditing and troubleshooting.   
Input: Time range or filter criteria for administrator logs.   
Output: Administrator logs displayed to the user, including action details and timestamps; the viewing action is logged.   
  
1.21 Format Template Management Function   
Function ID: FR-21   
Description: Administrators can create, update, or delete Format Templates that define formatting rules for Emails.   
Input: Format Template details for creation, update, or deletion.   
Output: Format Template is created, updated, or deleted in the system; the formatting rules are applied to associated Emails, and the action is logged.   
  
1.22 Administrator Creation Function   
Function ID: FR-22   
Description: Administrators can create new Administrator accounts and assign them to valid Accounts.   
Input: New Administrator details (name, username, password) and associated Account ID.   
Output: A new Administrator is created in the system and linked to an Account; the action is logged.   
  
1.23 Administrator Permission Assignment Function   
Function ID: FR-23   
Description: Administrators can assign administrative permissions to other users within the system.   
Input: Target user ID and the Account for which permissions are being assigned.   
Output: The user is granted administrative rights for the selected Account; the action is logged.   
  
1.24 Administrator Removal Function   
Function ID: FR-24   
Description: Administrators can remove other administrators from the system. The system verifies if there are other administrators for the Account and updates permissions accordingly.   
Input: Target Administrator ID.   
Output: The Administrator is removed from the system; the associated Account is updated, and the action is logged.   
  
1.25 Compliance Log Management Function   
Function ID: FR-25   
Description: Administrators can view, update, or delete Compliance Log entries that track audit results for Emails.   
Input: Compliance Log action (view, update, or delete) and relevant Compliance Log ID.   
Output: Compliance Log is updated or removed as per the action; the action is logged for traceability.