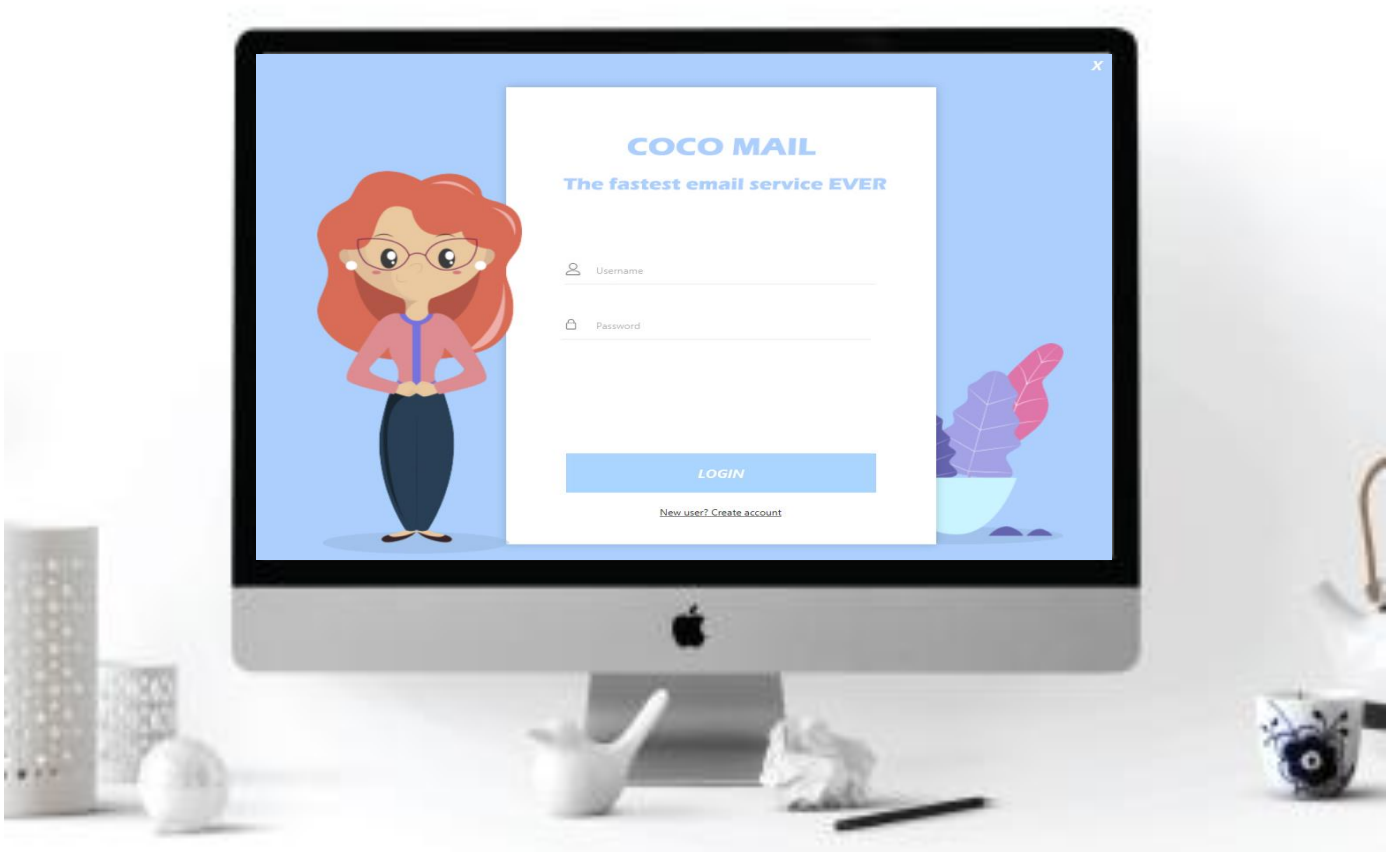




Alexandria University
Faculty of Engineering
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Data Structure 1

Mail Server Project



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Description and features

- We made a mail server like a Gmail which you can make an account on it and communicate with other people by sending and receiving emails, attachments, images from them.
- The user login in with our mail, if he has an account he will sign in, if he has not an account he will sign up and his information will be saved as email, password and his name.
- The first page which will appear to him is a frame that contains all features like send mails or view inbox, draft, trash, contacts, details, sign out.
- If he wants to send emails he will press on compose to send emails, attachments or images. He enters the email of the person he would send to him, enters subject of the sent mail and upload the mail that he wants to send.
- If you wants to discard the message it will not sent but will be put in the Drafts.
- If the person who made the account wants to delete emails from his own, he will delete it and it will be put in the trash folders.
- If the person who made the email wants to see the sent mails which he sent, he will press on the sent to see them.
- The person could search on emails with any words he remember from email.

Bonus parts

- We assume that all users have one or two accounts and there is all features of any mail app like send mails or receive emails or send attachments.
- When you open the application you are required to enter your email and password and if you don't have an email you should enter sign up button to make a new account.
- Each user will have a file called "info.txt" in folder user, this file contains his data.
- We assume that the user when Compose a message to any user. he should enter: the mail, subject, data, priority & attachments.
- The user does not insert a subject for his message to will be recorded as " ", and the user does not insert a priority for his message to will be recorded as 0.
- If the user wants to delete a message from his, he should choose the message and delete one by one or make multi select.
- The user can filter the messages by subject or name or date.
- We assumed that the user may want to log out from his mail so we provide a Log out Button.

Data Structure usage

- We use stack, priority queue.
- Doubly Linked list used for reading from files, displaying on GUI.

Algorithms

- Sign in:

This function check for right email and pass and give access if that right

For all mails in the file

If mail is right

Check for password

If password is write

Go to home page

Else

Back to sign in

- Sign up:

This function makes an account in the mail but

Firstly take all input from a text field

Check that all is right

For all signed emails

If this name not exist)

Make account

Else

The account is exist and return to sign in

Main module of your program

- inbox:

contains user's received messages.

- Sent Mails:

contains user's sent messages.

- Compose:

Helps user to send emails to other people.

- Drafts:

contains user's wrong messages which had errors.

- Details:

contains user's information.

- Contacts:

contains user's sent and received emails which he communicates with them.

- sign out:

Help user to log out from the mail.

- Trash:

Contains deleted messages.

Samples Runs

Login in screen:



Sign UP screen:



The image shows a 'Sign UP' screen for 'COCO MAIL'. The screen has a light blue background. On the left, there is a cartoon illustration of a woman with red hair, glasses, a pink shirt, and a dark skirt. On the right, there is a white card with the 'COCO MAIL' logo at the top. Below the logo, there are five input fields with icons: a person icon for 'Your Full Name', a phone icon for 'Phone number +20 XXX XXXXXXXX', an envelope icon for 'Username', a lock icon for 'Password', and another lock icon for 'Confirm Password'. Below these fields is a blue button labeled 'Sign UP'. At the bottom of the card, there is a link that says 'Already member'. In the top right corner of the blue background, there is a small 'X' icon. On the right side of the background, there is a stylized plant with purple and pink leaves in a light blue pot.

COCO MAIL

 Your Full Name

 Phone number +20 XXX XXXXXXXX

 Username

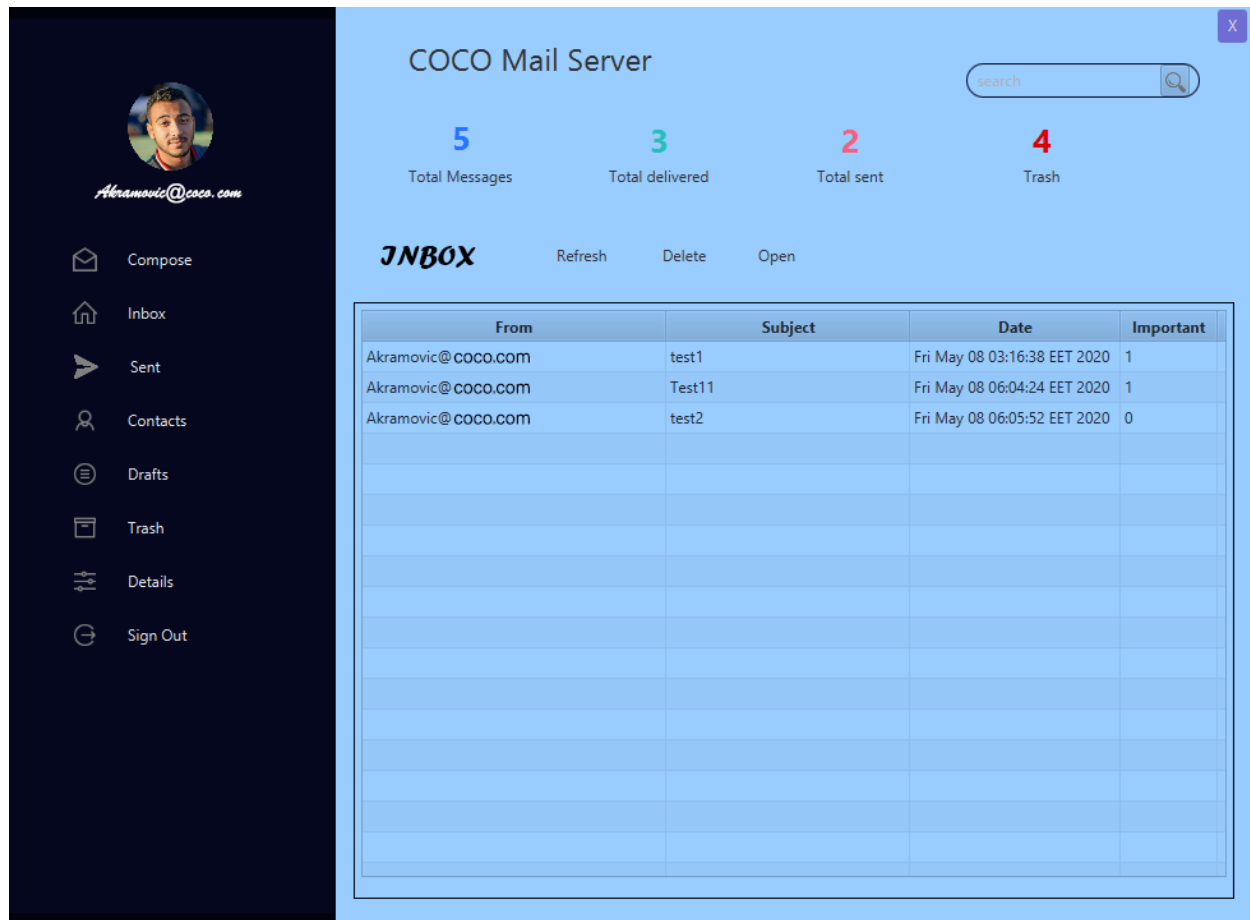
 Password

 Confirm Password

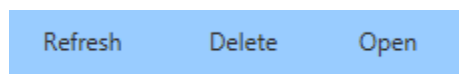
Sign UP

[Already member](#)

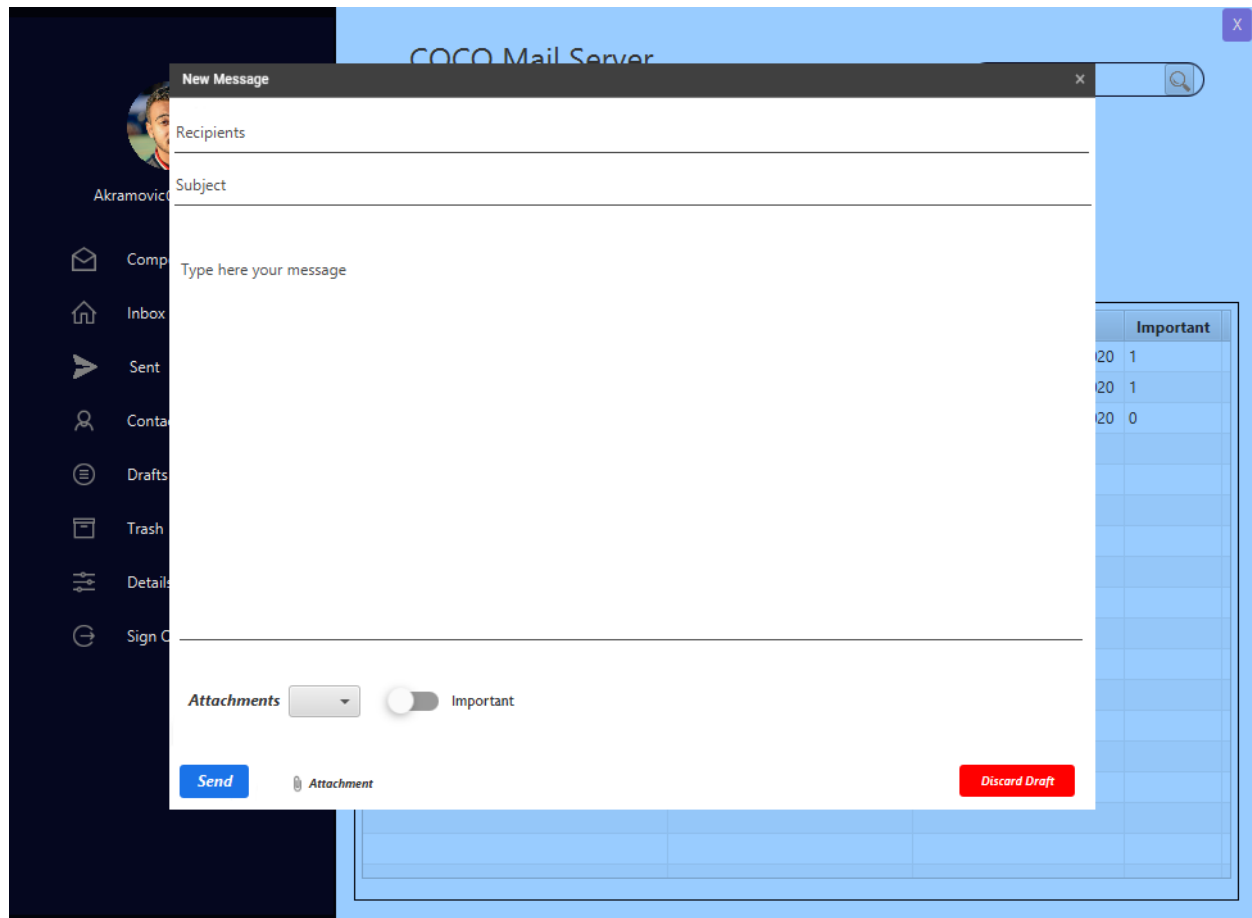
Inbox screen:



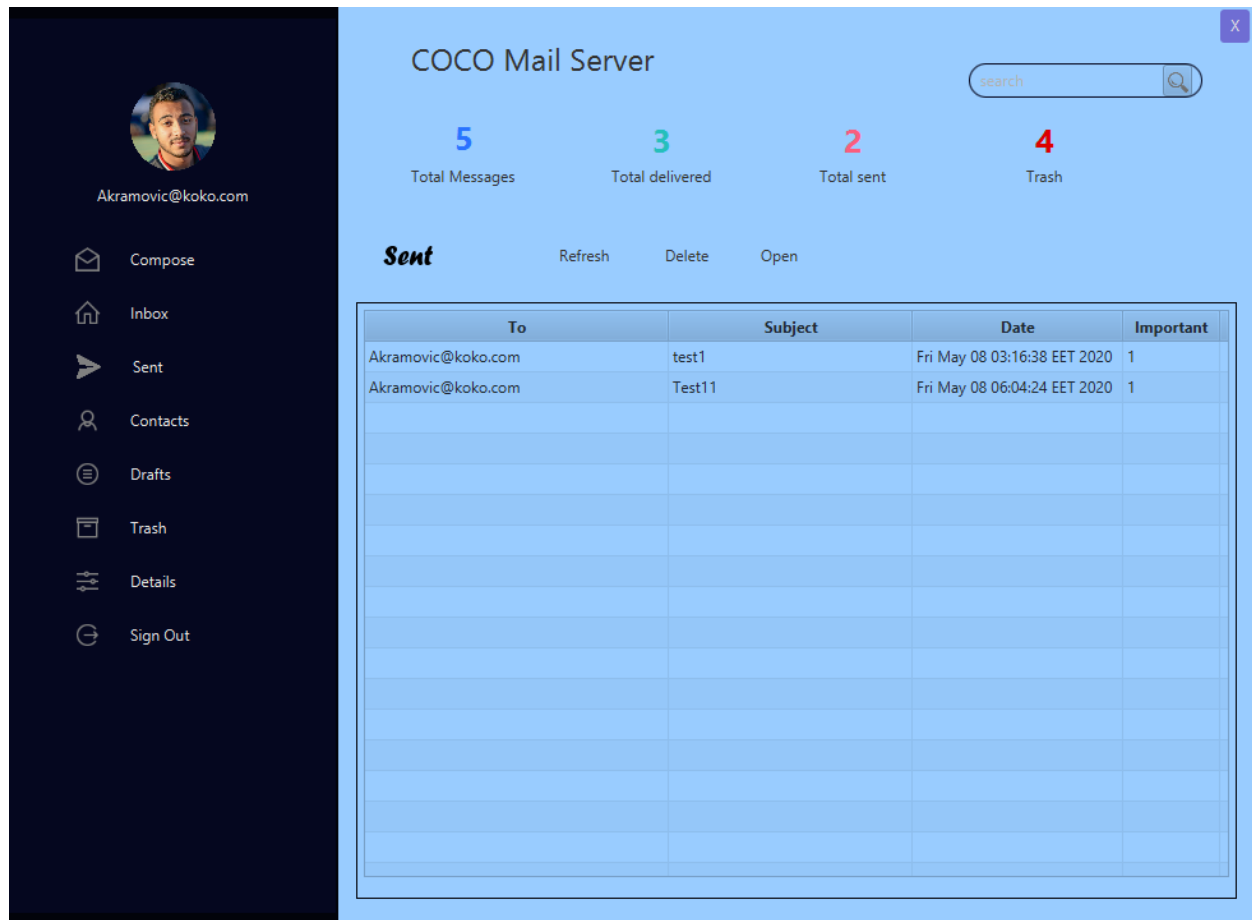
Buttons:



Compose screen:



Sent screen:



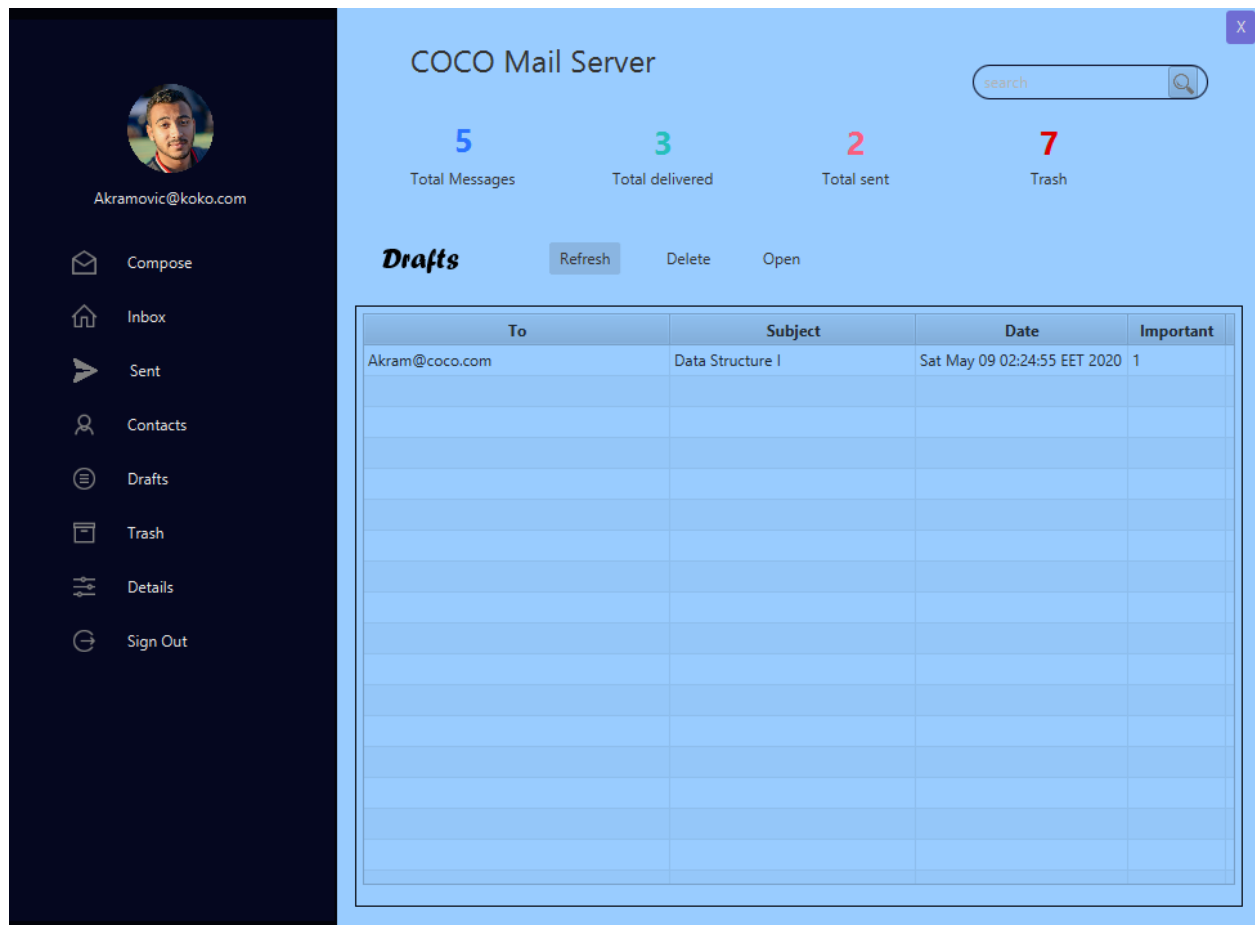
Buttons:

Refresh

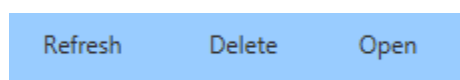
Delete

Open

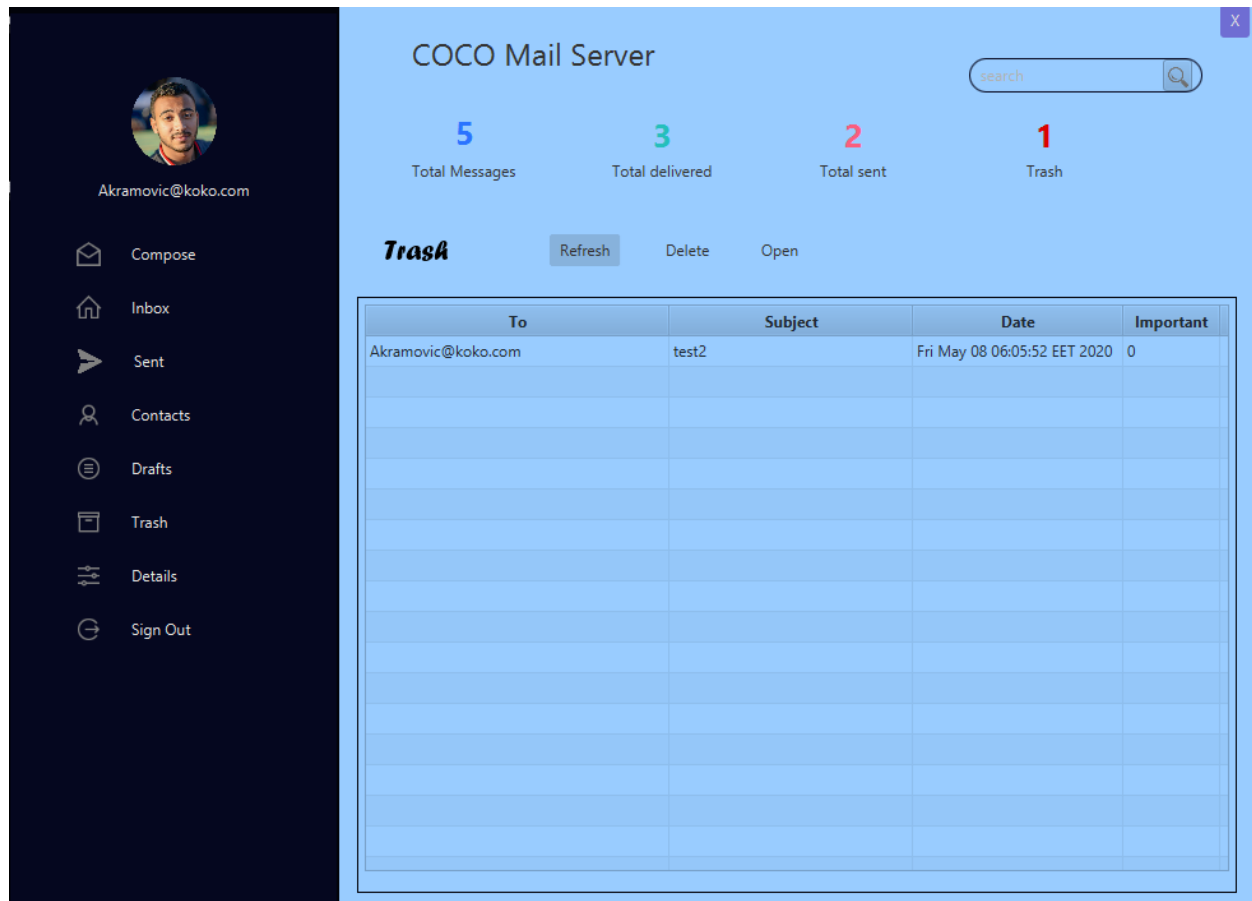
Draft screen:



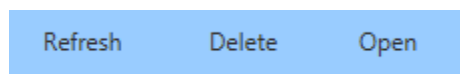
Buttons:



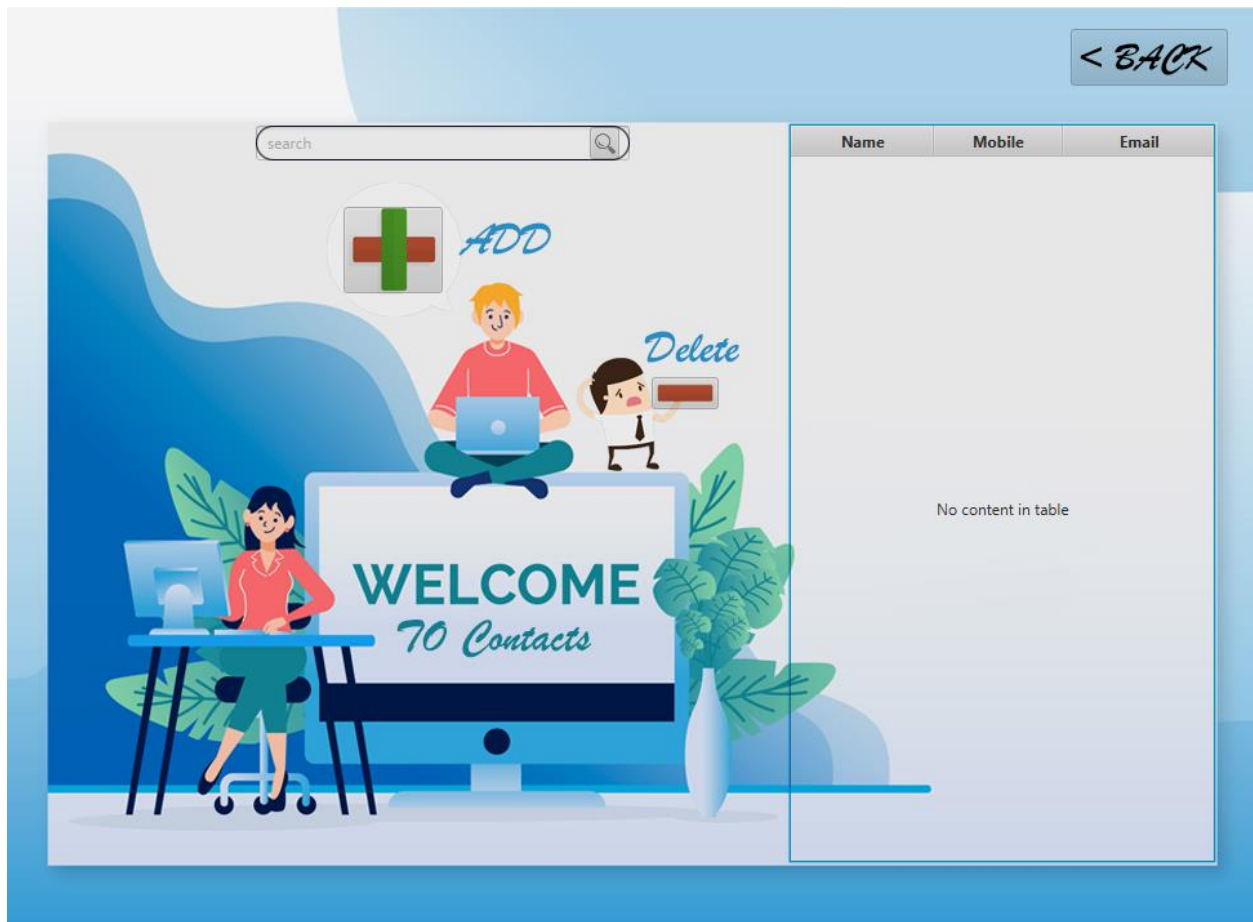
Trash screen:



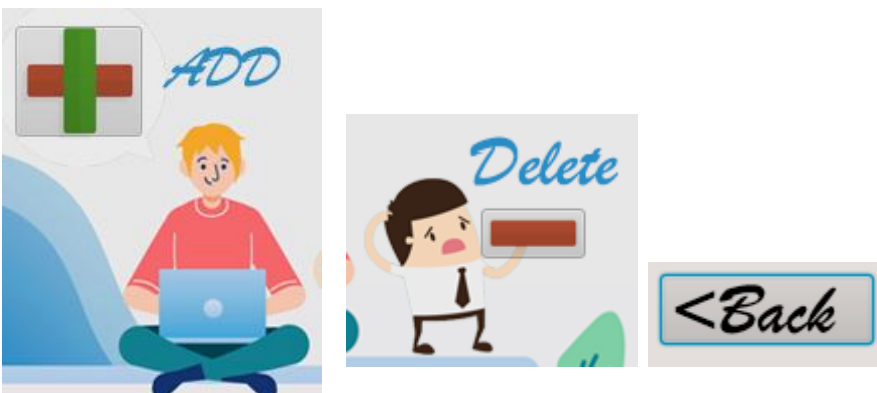
Buttons:



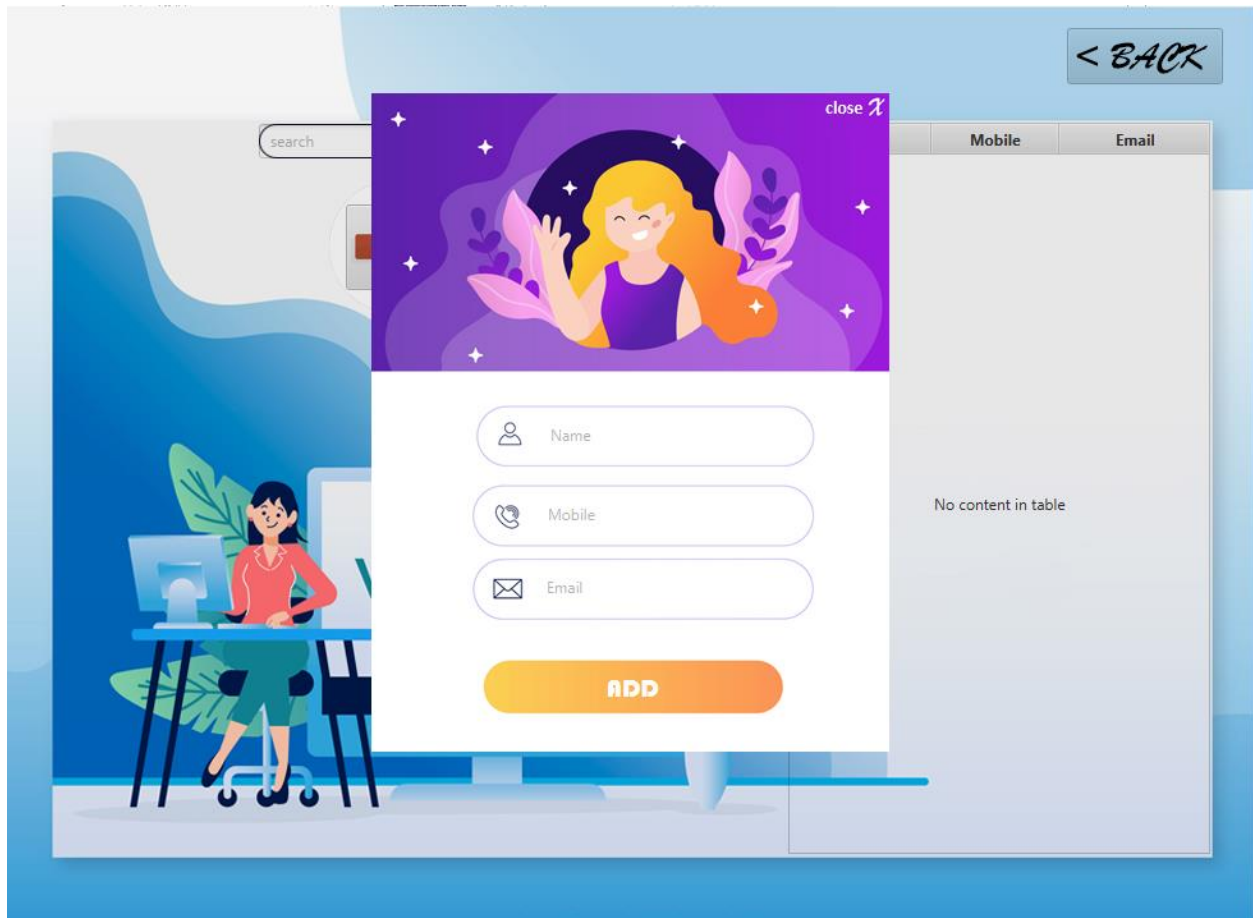
Contacts screen:



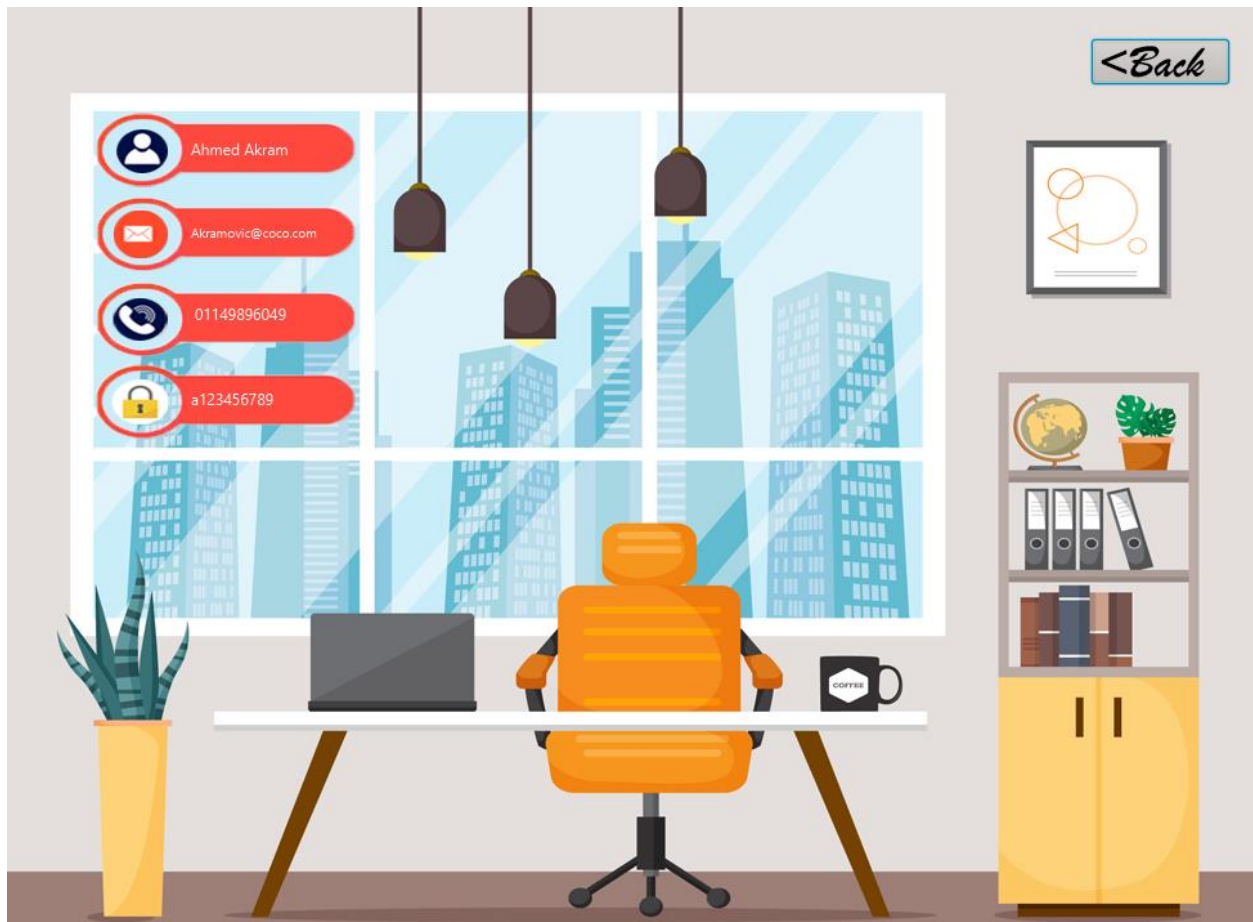
Buttons:



Add Contacts screen:



Details screen:



User Manual

- The user enters the email, if he has an email he will press on sign in to log in his email account, if he has not an email account he will press on sign up to make an account and to login the email account.
- The Compose, Sent Mails, Details, Sign out, Drafts, Trash and Inbox. All of these items will appear to the user when he enters the mail
- If he wants to send an email he will press on compose button to send email by entering to whom he would send, subject of the sent email, Data of the email and the email he wants to send (attachment, image,etc).
- If the person wants to delete an email he would press on delete button and it will be sent to the trash folder.
- If the user entered wrong email name while sending to another user or there is any error happened while sending email, this email will be sent to the Drafts folder.
- If he wants to find contacts which he sent to them emails or received from them emails, he will press on contact button and it will appear to him contacts' emails which he sent or received from them emails. If he presses on one of these accounts which appeared to him it will go to the compose to help him to send emails.
- If the user wants to logout from the mail he will press on the Signout button to logout.
- He could search emails depending on any word.
- He could sort emails depending on name, subject, date.
- He could refresh the page to have new notifications which happened.