Mobile App Development
Assignment 11

Basic Instructions:

1. In every file submitted you MUST place the following comments:
   a) Assignment #.
   b) File Name.
   c) Full name of the student.
2. Each group is required to submit the assignment on Canvas.
3. Submit Codes:
   a) Zip all the project folder to be submitted on canvas.
4. Submission details:
   a) The file name is very important and should follow the following format: **Assignment#.zip**
   b) You should submit the assignment through Canvas: Submit the zip file.
5. **Failure to follow the above instructions will result in point deductions.**

Assignment 11 (100 Points)

In this assignment you will develop "EMessageMe." The App allows the user to send and receive email like messages from other users. The app uses Firebase to manage the user authentication and mailbox management. In this assignment we are providing the high level requirements and the details of the UI and flow is left to the you to decide on.

1. The app should required email/password authentication.
2. The app is a messaging/mailbox app, where users should be able to send and receive messages sent to them by other users.

The main requirements are as follows:

1. Mailbox:
   a. This is a list of messages that were sent or received by currently logged in user. It is similar to your email inbox showing the messages but the difference is that it also shows the messages you have sent.
      - Consider coloring messages differently differentiate between sent and received.
   b. Each message should have, sender, receiver, title, message text, and message creation date. Each message should also have an attribute to indicate if the receiver did open the message or no.
   c. A user is able to delete any message in their mailbox. Keep in mind deleting a message from my inbox does not affect the mailbox of the other user involved in the message. For example, if the sender deletes a message, it is only deleted from their mailbox and the receiver is still able to see the message.
   d. A user should be able to search for messages using Firebase Firestore Query based on the message title. If the title is "This is a test" then the user should be able to search using prefix search by typing "T" or "Th" or "Thi" or "This" and so on. You will need to explore how to provide this feature using Firebase Firestore query.
2. Create message:
   a. A user should be able to create a new message by entering the message title, message text, and selecting a receiver from all the users in the system that did not block a sender.
   b. Upon sending the message, the message should appear in the sender's mailbox and the receiver's mailbox.
3. Reply to a message:
   a. A user should be able to create a reply to a message by entering the reply message text. The title and receiver should be the same.
   b. Upon sending the message, the message should appear in the sender's mailbox and the receiver's mailbox.
      - Consider using an icon or text to indicate that this is a reply-to message.
4. User listing:
   a. Should be able to view all the users in the system and should be able to block and unblock users. A blocked user is not able to send messages to a user that has blocked them.
   b. The user should be able to view the list of users that they have blocked.