Search Contact Module (Linear Search)

searchContactsByName(name) RETURNS LinkedList

START

        LinkedList results = NEW LinkedList()

        INTEGER count = 0

        // Check if the list is empty

        IF isEmpty() THEN

                DISPLAY message "The list is empty." with title "No contacts"

                RETURN NULL

        END IF

        // Traverse the linked list

        Node temp = this.head

        WHILE temp IS NOT NULL DO

                // Check if the first or last name matches

                IF temp.contact.getFirstName() EQUALS name OR

                        temp.contact.getLastName() EQUALS name THEN

                        // Display the contact's details

                        textArea.setText(temp.contact.toString())

                        // Insert contact into results

                        results.insertContact(temp.contact)

                END IF

                // Move to the next node

                temp = temp.next

                count = count + 1

        END WHILE

        // Return the list of matching contacts

        RETURN results

END

linearSearchNumber(phoneNumber, loggedInUserID)

START

   IF isEmpty() THEN

      DISPLAY "The list is empty." MESSAGE

      RETURN null

   ELSE

      SET temp TO head

      WHILE temp IS NOT NULL

        IF temp.contact.getPhoneNumber() EQUALS phoneNumber AND temp.contact.getUserID() EQUALS loggedInUserID THEN

          DISPLAY "Contact found successfully" MESSAGE

          RETURN temp.contact

        END IF

        SET temp TO temp.next

      END WHILE

      DISPLAY "The contact is not in the list." MESSAGE

      RETURN null

   END IF

END