

start

CallingContact ()

Prompt user for contact name (Firstname Lastname)

if user input is not null then

Display "Calling <name>"

end if

end

SaveContact ()

Prompt user for contact name (Firstname Lastname)

Prompt user for contact phone number (e.g., +264 815945484)

if both name and number are not null then

Create new contact (name, number)

if contact list is empty (head is null) then

Set head to new contact

else

Traverse to the end of the contact list Add new contact to the end of the list

end if

Display "Saving contact <name>: <number>"

end if

end

DeleteContact ()

Prompt user for contact name to delete (Firstname Lastname)

if user input is not null then

if contact list is empty (head is null) then

Display "Contact list is empty"

else if head.name equals input name then

Remove head contact (set head to head.next)

Display "Deleted contact: <name>"

Else

Traverse contact list if matching contact is found then

Remove contact by linking previous to next

Display "Deleted contact: <name>"

Else

Display "Could not find <name> to delete"

end if

end if

end if

end

UpdateContact ()

Prompt user for contact name to update (Firstname Lastname)

if user input is not null then

Prompt user for new phone number if new number is not null then

Traverse contact list if matching contact is found then

Update contact's phone number

Display "Updated contact <name> to <new number>"

Else

Display "Could not find <name> to update"

end if

end if

end if

end

DisplayAllContacts ()

if contact list is empty (head is null) then

Display "No contacts available"

else

Display "Contact List:"

Traverse contact list for each contact: Display "<name>: <number>"

end for

end if

end

SortContacts ()

if contact list is empty or has only one contact then

Display "No contacts available to sort"

Else

repeat until no swaps occur: Traverse contact list if current contact name is greater than next contact name then Swap current contact and next contact (name and number)

end if

end repeat

Display "Contacts sorted alphabetically"

end if

end

searchContact ()

Prompt user for contact name to search (Firstname Lastname)

if user input is not null then

Traverse contact list if matching contact is found then

Display "Found: <name> - <number>"

Else

Display "Could not find <name>"

end if

end if

end

main ()

Initialize GUI for SafeLock

// Create and add buttons for various operations

Create button "Save Contact"

Create button "Delete Contact"

Create button "Update Contact"

Create button "Display All Contacts"

Create button "Call Contact"

Create button "Sort Contacts"

Create button "Search Contact"

// Set button actions

On "Save Contact" button click:

call saveContact

On "Delete Contact" button click:

call deleteContact

On "Update Contact" button click:

call updateContact

On "Display All Contacts" button click:

call displayAllContacts

On "Call Contact" button click:

call callContact On "Sort Contacts" button click:

call sortContacts

On "Search Contact" button click:

call searchContact

// Display GUI Start GUI loop to handle user actions

end