

```
// START
```

```
DISPLAY all contacts from phonebook
```

```
WHILE (true) DO
```

```
    DISPLAY "Do you want to search by contact name?"
```

```
    INPUT userChoice
```

```
    IF userChoice == True THEN
```

```
        DISPLAY "Enter contact name:"
```

```
        INPUT name
```

```
        DISPLAY contact information for the entered name
```

```
    ELSE
```

```
        DISPLAY "Do you want to search by group?"
```

```
        INPUT userChoice
```

```
        IF userChoice == True THEN
```

```
            DISPLAY "Enter group name:"
```

```
            INPUT group
```

```
            DISPLAY contacts that belong to the entered group
```

```
        ELSE
```

```
            DISPLAY "Do you want to add a new contact?"
```

```
            INPUT userChoice
```

IF userChoice == True THEN

 DISPLAY "Enter contact name, phone number, group, and email:"

 INPUT name

 INPUT number

 INPUT group

 INPUT email

 ADD contact (name, number, group, email) to phonebook

ELSE

 DISPLAY "Do you want to view all contacts?"

 INPUT userChoice

 IF userChoice == True THEN

 DISPLAY all contacts from phonebook

 ELSE

 DISPLAY "Do you want to delete a contact?"

 INPUT userChoice

 IF userChoice == True THEN

 DISPLAY all contacts from phonebook

 DISPLAY "Select contact to delete:"

 INPUT selectedContact

 DELETE selectedContact from phonebook

 ELSE

DISPLAY "Do you want to edit a contact?"

INPUT userChoice

IF userChoice == True THEN

DISPLAY all contacts from phonebook

DISPLAY "Select contact to edit:"

INPUT selectedContact

DISPLAY "Enter new name, number, group, and email:"

INPUT newName

INPUT newNumber

INPUT newGroup

INPUT newEmail

UPDATE contact (selectedContact) with (newName, newNumber, newGroup,
newEmail)

ELSE

DISPLAY "Do you want to sort contacts by Name, Group, or Number?"

INPUT userChoice

IF userChoice == True THEN

DISPLAY "Sort by Name, Group, or Number?"

INPUT sortCriteria

SORT contacts based on sortCriteria

ELSE

DISPLAY "Do you want to verify a contact's phone number?"

INPUT userChoice

IF userChoice == True THEN

 DISPLAY all contacts from phonebook

 DISPLAY "Select contact to verify number:"

 INPUT selectedContact

 VERIFY phone number of selectedContact

ELSE

 DISPLAY "Do you want to delete multiple contacts?"

 INPUT userChoice

IF userChoice == True THEN

 DISPLAY all contacts from phonebook

 DISPLAY "Select multiple contacts to delete:"

 INPUT selectedContacts

 DELETE multiple selectedContacts from phonebook

ELSE

 DISPLAY "Do you want to activate lock mode?"

 INPUT userChoice

IF userChoice == True THEN

 ACTIVATE lock mode

END IF

END IF

```
        END IF
    END IF
END IF
END IF
END IF
END IF
END IF
END IF
```

```
DISPLAY "Do you want to exit the phonebook manager?"
```

```
INPUT userChoice
```

```
IF userChoice == True THEN
```

```
    BREAK
```

```
END IF
```

```
END WHILE
```

```
STOP
```