//INSERT CONTACT

Prompt user for name, number

Get name, number

FUNCTION insertContact(phonebook, name, number):

IF (rear == size – 1) THEN

FALSE

ELSE IF (front == -1 AND rear == -1) THEN

FALSE

rear = rear + 1

TRUE

TRUE

DISPLAY "Phonebook is full"

front = 0
rear = 0

phonebook[rear].name = name
phonebook[rear].number = number

//SEARCH CONTACT

Prompt user for query

Get query

FUNCTION searchContact(phonebook, query):

IF (front == -1) THEN

FALSE

TRUE

DISPLAY "Phonebook is empty"

FOR i = front TO rear;

IF (phonebook[i].name == query OR phonebook[i].number == query) THEN

RETURN phonebook[i]

DISPLAY "Contact found: Name = phonebook[i].name, Number = phonebook[i].number"

start

//DISPLAY ALL CONTACTS

FUNCTION displayContacts(phonebook):

IF (front == -1 AND rear== -1) THEN

FALSE → FOR (i = front; i < rear + 1; i++)

TRUE

DISPLAY "Phonebook is empty."

DISPLAY " Name: phonebook[i].name, Number: phonebook[i].number"

//DELETE CONTACT

Prompt user for name

Get name

FUNCTION deleteContact(phonebook, name):

IF (front == -1 AND rear == -1)

FALSE

TRUE

DISPLAY "Phonebook is empty"

FOR i = front TO rear;

IF (phonebook[i].name == name)

FALSE

TRUE

FOR j = i TO rear -1:

phonebook[j] = phonebook [j+ 1]

rear = rear -1

IF (rear == -1)

FALSE

front = -1

DISPLAY "Contact deleted successfully"

RETURN

DISPLAY "Contact not found"

END

Prompt user for
name, newNumber

Get name,
newNumber

FUNCTION
updateContact(phonebook,
name, newNumber):

IF (front == -1
AND rear= -1)
THEN

FALSE

TRUE

DISPLAY "Phonebook
is empty"

FOR i = front TO rear:

IF (
phonebook[i].name==
name) THEN

FALSE

TRUE

phonebook[i].number
= newNumber

DISPLAY "Contact
updated successfully"

RETURN

DISPLAY "Contact
not found"

FUNCTION
sortContacts(phonebook):

IF (front == -
-1) THEN

FALSE

TRUE

DISPLAY "Phonebook
is empty"

FOR i = front TO
-1:
FOR j = front TO
– i – 1:

IF
(phonebook[j]
> phoneboo
1].name) TH

T

temp = phone

phonebook
phonebook[j
temp

DISPLAY "Co
sorted alphabe

) rear

) rear

FALSE

].name
ook[j +
HEN

TRUE

ebook[j]

k[j] =
+ 1] =

ontacts
etically"