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Programming
One
Final Project

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Programming Report contains :

- 1) Description of my code structure .
- 2) Simple user guide .

First : description of my code structure :

1)My project Consists of three Classes

2)The First Class is ("Contact.java")

it Contains :

a)Six instance variables that are

{firstName, lastName, phoneNumber, e_mail, address, note}

all are Strings .

b) A constructor ("Contact") that takes six parameters .

c) Six methods getters and six methods setters to access the six instance variables .

3) The second Class is ("PhoneBook.java")

it Contains :

a)One static variable ("i") I am using it to count the number of contacts that existing

in the file ("Contact.txt").

and a method (set_I_To_Zero()):

This method is used to set the value of the static variable (I) to(zero).

b)A method (viewAllContacts()) :

This method is used to load the file (Contact.txt)in an array of object then print all the array.

c)A method (addNewContact()) :

This method is used to load the file in an array of object then add new object to the array (new Contact) then save all the array in the file(Contact.txt).

d)A method (addToFile(String firstName, String lastName,String phoneNumber, String e_mail, String address, String note)) .

This method used to add the contact information to the file(Contact.txt).

: it takes six parameters

1)firstName --The first parameter is the first name of the contact .

2)lastName --The second parameter is
the first name of the contact.

3)phoneNumber --The third parameter is the first name of the contact.

4)e_mail --The fourth parameter is the first name of the contact.

5)address --The fifth parameter is the first name of the contact .

6)note --The sixth parameter is the first name of the contact .

e)A method (numOfContacts()) :

This method used to count the number of contacts in the file(Contact.txt).

it returns : --int the number of contacts

f)A method (loadFile()) :

This method takes the data from the file ("Contact.txt") and put it in an array of
objects (Contact) .

it returns : --An array of objects (Contact).

g)A method (searchContactWithFirstName(String firstName)) :

This method is used to search for a contact by the first name or a the first part of it.

1)load the file (Contact.txt) to an array of objects (Contact1)

2)search in the array for the first name that the user want

3)print the result of the search to the user

4)the user choice the contact that he wanted.

it takes one parameter(String firstName)

String the first name or the first part of it

it returns -- an array of object contains the result of the search

h)A method (toSearchByFirstName) :

.This method is used to interact with the user to search for a contact by the first name

.it returns : --an object (Contact) that the user want

i)A method (searchContactWithLastName(String lastName

.This method is used to search for a contact by the lastName or a the first part of it

1). load the file (Contact.txt) to an array of objects (Contact

2).search in the array for the lastName that the user want

3). print the result of the search to the user

3).the user choice the contact that he wanted

it takes one parameter(String lastName)

.String the lastName or the first part of it--

.it returns -- an array of object contains the result of the search*

j)A method (toSearchByLastName

.This method is used to interact with the user to search for a contact by the last name

.it returns : --an object (Contact) that the user want

k)A method (searchContactWithPhoneNumber(String phoneNumber)

This method is used to search for a contact by the phone number or a the first part of

.it

- 1).load the file (Contact.txt) to an array of objects (Contact)
- 2).search in the array for the phone number that the user want
- 3). print the result of the search to the user
- 4).the user choice the contact that he wanted

it takes one parameter(String phoneNumber)

.String the phoneNumber or the first part of it--

.it returns -- an array of object contains the result of the search

l)A method (toSearchByPhoneNumber)

This method is used to interact with the user to search for a contact by the phone number

it returns : --an object (Contact) that the user want

m)A method (checkNumber(String phoneNumber)

This method is used to check the phone number validation the phone number must be a numbers only and not letters

it takes one parameter(String phoneNumber)

the phone number that the user has been input it--

it returns --boolean

.,true if the phone number is correct

false if the phone number is incorrect

n)A method (edit_A_Contact(Contact userChoice

(This method is used to edit an existing contact in the file(Contact.txt)

- 1). load the file (Contact.txt) to an array of objects (Contact)
- 2). find the index of the contact that the user want to edit
- 3).edit it in the array then save it in the file

it takes one parameter (Contact userChoice)

.Object contact that the user want to edit--

.it throws IOException

o)A method (copyToFile(Contact[] new_Array)

This method is used to copy an array of objects (Contact) to the file
("Contact.txt")

(it takes one parameter (Contact[] new_Array)

(the array of objects (Contact--)

it throws IOException

p)A method(deleteContact()):

1).(This method is used to delete a contact from the file(Contact.txt

.Search the contact that you want to delete

2).The user show the result of the search

3).hen enter the index of the line that the user want to delete it

4)Delete the Contact from the array and save the array in the fie

it throws IOException

q)A method(delete_Element(Contact[] mine, int index))

This method takes an array of objects(Contact) and an index of an element and delete it
then save it in the file (Contact.txt).

(it takes two parameter (Contact[] mine

.an array of objects (Contact)

(int index)

.an index of an element in the array--

it throws IOException

r)A method (copyToFile_Delete(Contact[] new_Array)

This method takes one parameter an array of objects(Contact) and print it in a file (Contact.txt)

it takes one parameter (Contact[] new_Array)

It is an array of objects (Contact)

it throws IOException

s)A method (e_mailValidation(String e_mail))

This method check the e_mail validation

it takes one parameter (String e_mail)

It takes one parameter the e_mail in a String--

return --It returns boolean@

True if the e_mail valid and false if

.the e_mail in valid

t)A method sort(Contact[] sor)

This method is used to sort an array of object by the first name by (Bubble Sort).

It takes one parameter (Contact[]sor) an array of objects un sorted.

And returns it sorted in an array of objects.

The third Class (Application()):

it contains the main method that is used to run the application and interact with the user .



Second : the user guid : -

a) Adding a new contact :

To add a new contact press(1)

1) Add a new Contact.-----press(1)

Then

Enter The First Name :

Then

Enter The Last Name :

Then

Enter The Phone Number :

(You must enter a valid phone numbers only not letters or any symbol)

Then

If you want to add an e_mail-----press (1)

If you want not to add an e_mail-----press (2)

(you must enter a valid e_mail for exmple : "name@example.com")

Then

If you want to add an address-----press (1)

If you want not to add an address-----press (2)

Then

If you want to add an notes-----press (1)

If you want not to add an notes-----press (2)

Then

If you want to :

To add another contact-----press (1)

To exit press-----press (2)

b)Editing an exist contact :

2) Edit an existing Contact.-----press(2)

Then

To edit a Contact you must search on it in the first!!!!

If you want to :

=====

1) Search for Contacts by First Name.-----press(1)

2) Search for Contacts by Last Name.-----press(2)

3) Search for Contacts by Phone Number.-----press(3)

Then

For example If you pressed (1):

Enter the First Name :

Then

Enter the index of line that you want !!!!!

If you want to edit :

1) First Name-----press (1).

2) Last Name-----press (2).

3) Phone Number-----press (3).

4) E_mail-----press (4).

5) Address-----press (5).

6) Notes-----press (6).

For example If you pressed (2):

Enter the new last name :

c)Deleting a contact :

3) Delete an existing Contact.-----press(3)

Then

To delete a Contact you must search on it in the first!!!!

If you want to :

=====

1) Search for Contacts by First Name.-----press(1)

2) Search for Contacts by Last Name.-----press(2)

3) Search for Contacts by Phone Number.-----press(3)

For example if you pressed (1)

Enter the First Name :

Then

Enter the index of line that you want !!!!!

d)view all contacts :

4) View all existing Contacts.-----press(4)

e)Searching :

5) Search for Contacts by First Name.-----press(5)

6) Search for Contacts by Last Name.-----press(6)

7) Search for Contacts by Phone Number.-----press(7)

For example if you pressed (5)

Enter the First Name :

Then

Enter the index of line that you want !!!!!

Then

You will see the contact.

f)Closing the program :

8) To close.-----press(8)

thank you