In this lab, you will write a simple program which will allow the user to add, remove, list, and search entries in a phonebook. Each entry will contain the contact's name and their phone number.

Because we do not know how many contacts the user will want to store, we will use an Arraylist to store all contacts, as Arraylists can expand and contract automatically at runtime. However, since we do know how much information the program needs to hold each contact, contacts will be saved as arrays.

All names and phone numbers should be handled as strings.

The features described below must be in your program:

Outside of your main loop, create an arraylist to hold ________________ called "phonebook"

In the main loop, implement the following menu options:

1. Prompts the user for a name and a phone number. Store both of them in an array of strings and then store the array in the arraylist. Note that the name must be stored in the first index and the phone must be stored in the second index. Your arrays should not have a size different than 2.
2. Prompts the user for a name and then traverses the phonebook. If an entry is found whose name ________________ what the user entered, remove said entry from the phonebook. If no contacts match, print instead "No contact with that name". Note that, in case more than one contact matches the user's input, only the first one should be deleted.
3. Lists all contacts in the phonebook, one per line, in the following format (where X is the contact's name and Y is their phone number):

   Name: X | Phone: Y

4. Prompts the user for a keyword and then traverses the phonebook. Any contacts whose name ________ the keyword should have their name and phone number printed out as above. If no contacts contain the keyword, print instead "No contacts contained the keyword".
5. Terminates the program

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3

1
      Alice
          404-111-0001

1
      Bob
          404-222-0002

1
      Charlie
          404-333-0003
```

1

Alice Cobb

404-444-0004

1

Charlie

404-555-0005

3

4

ob

4	Eve
2	Charlie
3	
2	Alice Cob

5