

You will implement a phone directory program that reads names of friends and their phone numbers from a file called *names.txt* (given) and stores them in a *HashMap<key,value>* data structure. Key and value are of *String* type

Your program needs to have the following capabilities:

- display all names in the phone directory;
- add a friend (given name, phone number)
- remove a friend (given name)
- change phone number (given name, new phone number)
- search number (given name)

You are given a driver program called *DirectoryMain.java* that uses the above features provided by a *Directory* class.

The driver program tests all the above features. You do not need to write a menu.

You need to:

Write a class called *Directory.java* that instantiates a *HashMap* called *directory* and that implements the following methods:

```
public Directory(String names) throws FileNotFoundException
    //constructor: reads names and numbers from the file into the
    //called directory

public String getPhoneNumber(String name) //number look up given name
public void delete(String name)          //remove a directory entry
public void add(String name, String number // add friend given number
public void change(String name, String number) // change number
```

The names file separates names from phone numbers with a ':'. e.g

Armando Lopez : 916-333-4444

Split the input string into two tokens corresponding to the key and value by splitting the input string using *String tokens[]= inline.split(":");*

tokens[0] will be name and *tokens[1]* is phone number

Test: run DirectoryMain and verify that your output looks like this:

```
      Meili Xu      202-345-8765
    Abigail Smith  886-345-7625
    Randy Burgher  198-345-8765
      John Adams   916-334-7767
    Rita Hayworth  887-345-8765
    Geeta Srinivas 987-345-9876
      Jesus Lopez  331-334-9876

Adding   Dwight Cheeseboro 916-423-4324
Changing Dwight Cheeseboro 924-335-6757
```

```
    Dwight Cheeseboro 924-335-6757
      Meili Xu      202-345-8765
    Abigail Smith  886-345-7625
    Randy Burgher  198-345-8765
      John Adams   916-334-7767
    Rita Hayworth  887-345-8765
    Geeta Srinivas 987-345-9876
      Jesus Lopez  331-334-9876

Rita Hayworth Removed
Rita Hayworth's number: Not Found
```

```
    Dwight Cheeseboro 924-335-6757
      Meili Xu      202-345-8765
    Abigail Smith  886-345-7625
    Randy Burgher  198-345-8765
      John Adams   916-334-7767
    Geeta Srinivas 987-345-9876
      Jesus Lopez  331-334-9876

John Adam's number:      916-334-7767
Amal Rona's number:     Not Found
```