

COMP 1451 Lab 2-b

Take-home lab

For this lab you will work with the **HashMap** collection class in the Java Class Library and some of the methods of the **String** class.

Create a project to store your friends' email addresses. Create a class called EmailInfo. This class has a single instance variable, an object of type HashMap. The hash map will store your friends' names and email addresses, both String objects. Assume for now that each friend has only one email address and that you don't have friends with identical names. Declare the field like this:

```
private HashMap<String, String> addressBook;
```

The constructor must initialize the field by creating a new HashMap object.

You will provide these methods:

```
/** @return the properly-formatted name. */  
private String formatName(String name)
```

```
/** Add a friend to the address book. The friend's name must be formatted before  
being stored. */  
public void addFriend(String name, String email)
```

```
/** Remove a friend from the address book. The name passed in can be in upper  
case, lower case, or mixed. The friend and his/her email will be removed from  
the address book. */  
public void removeFriend(String name)
```

```
/** Return an email address based on friend's name. The name passed in can be  
in upper case, lower case, or mixed. The friend's email address will be  
returned. */  
public String getAddress(String name)
```

```
/** Find and display friends based on their email address. There might be more  
than one friend using the same email. */  
public void findFriends(String email)
```

```
/** List all friends and their email addresses */  
public void listAll()
```

Also provide a Driver class that will run and test the methods above.

The take-home lab is due as stated on the dropbox. Upload it to the appropriate D2L dropbox.