

error an "e"
on back

Part a:

Write the Username constructor below.

```

/** Constructs a Username object as described in part (a).
 * Precondition: firstName and lastName have length greater than 0
 * and contain only uppercase and lowercase letters.
 */
public Username(String firstName, String lastName)
    possibleNames = new ArrayList<String>();
    for (int i = 0; i < firstName.length(); i++)
        possibleNames.add(lastName + firstName.substring(0, i+1));
}

```

Part b:

Complete the setAvailableUserNames method below.

```

/** Removes strings from possibleNames that are found in usedNames as
described in part (b).

```

```

*/
public void setAvailableUserNames(String[] usedNames)
    for (int i = possibleNames.size() - 1; i > -1; i--)
    {
        if (isUsed(possibleNames.get(i), usedNames))
            possibleNames.remove(i);
    }
}

```

(more on back)

c) Write one line of code to create a Username object "hp" using the name "Harry Potter".

```
Username hp = new Username("harry", "potter");
```

d) After creating hp, what are the contents of the hp's variable possibleNames?

potterh, potterha, potterhar, potterharr, potterharry

e) As System Administrator (a title you proudly hold), you know that the user name "patterh" has already been taken. Write code to update the hp object with this information. (You need to use the setAvailableUserNames method to do this.)

```
String[] used = {"patterh"};  
hp.setAvailableNames(used);
```

f) What is wrong with the following code?

```
Username Draco Malfoy = new Username("draco", "malfoy");
```

↑
can't have a space here

g) Write code to ask the user for a first and last name using the given Scanner and then create a Username object user using their information.

```
Scanner scan = new Scanner(System.in);
```

```
String first = scan.nextLine();
```

```
String last = scan.nextLine();
```

```
System.out.println("please enter your first + last names:");
```

```
Username user = new Username(first, last);
```