Andy

10/09/23

Week2Meet - 10 pts

Turn in on BBL as soon as complete, but before end of day Sunday following the lecture.

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Reading a program

Write pseudocode for the GenerateCode program.

```
/**************************************
 * GenerateCode.java
 * random passphrase program
 *
 * @author Tammy Pirmann
 * @version 1.0
 **************************************/

lovedOne = input("Enter name of loved one");
favorite = input("Favorite item or food");
place = input("Memorable place");
year = input("A year you can recall (4 digits): ");


/*Random number from 2 to 9 from uniform distribution */
number = randomUniform(2, 9)



/*Replace vowels in favorite (regex syntax) */
shortFvrt = replace(favorite,"[aeiou]" with " ")

/* Encode using the following */
Code1 = lovedOne + year + shortFvrt

Code2 = shortFvrt + number + place

Code3 = lovedOne + number + place + year

Code4 = number + place + year + lovedOne
```

I understand the problem introduced in class to be: (in your own words)

We ask the user their first and last name and generate a unique id for them. The id is generated randomly using a random number that represents the index of a character in the string. It is then followed by 0 - 4 digits ranging from 0 to 9.

My plan to solve this problem is:

```
/* Input name */

firstName = input("Enter first name")

lastName = input("Enter last name")


/* Generate random numbers

idNum = randomUniform(0, 9999)

firstNameIndex = randomUniform(0, len(firstName) - 1)

lastNameIndex = randomUniform(0, len(lastName) - 1)


/* Get characters */

f = firstName.lower()[firstNameIndex]

l = firstName.lower()[lastNameIndex]


/* Output */

Print(f+l+idNum)
```

The solution to the problem was the following program: (provide the name of the .java file only)

UniqueID.java

I tested the solution with at least 3 different value sets. The test data and results are:

(use this format: var1 = data, var2 = data, etc -> result)

Results vary due to pseudorandom number generation

firstName = "Andy", lastName = "Cherney" -> dn3742

firstName = "Bob", lastName = "Saget" -> oe9715

firstName = "John", lastName = "Smith" -> hi9652

Reflect on your problem-solving:

How confident are you in the solution?

I am confident that this is the right solution. However, when dealing with randomness, test results are very different per run, which is why these cases should be evaluated using different criteria.

On a scale of 1 to 10 with 1 not at all confident and 10 very confident, how confident are you in reading the programs provided in lecture? 9

How confident are you in writing the programs in lecture? 8

How confident are you in writing the labs on your own? 8

Reflect on your learning and your needs. After this class meeting, what topics do you feel like you learned and what topics do you feel like you need more information on to learn?

I learned different string methods such as charAt and toLower to help me transform strings. I learned how to generate random numbers with both the random class and Math.Random. I also learned how to format output. So far, I think I am doing good and have everything covered.