

## CSE1322L - Lab 10

### Objectives

- Get more practice writing recursive methods.

### Tasks

Write the following methods and main drivers:

- Recursive method repeatNTimes
  - Takes in a string and an integer as parameters
  - Concatenates the string to itself the number of times indicated. Returns the resulting string.
  - For example, if passed “Hi”, 4. It would return “HiHiHiHi”. If passed “This is a test “,2, it would return “This is a test This is a test”.
  - If passed “Test”,0, it should return an empty string “”
- Recursive method isReverse
  - Takes in 2 strings as parameters
  - Returns a boolean indicating if the 2 strings have the same characters but reversed from each other.
  - For example, if passed “Hello” and “olleH” it would return true
  - If passed “a” and “a” it would return true
  - If passed “Test” and “Test” it would return false.
  - 2 empty strings should be considered the reverse of each other.
  - Capitalization must also match. I.e. abcd and DCBA should return false.
  - You will may find the following methods helpful:
    - Java: string.length(), string.charAt(0), string.substring()
    - C#: string.Length, string[0], string.Substring()
- Main method:
  - Using the repeatNTimes method print out the string “I must study recursion until it makes sense\n” 100 times.
  - Next prompt the user for string 1 (e.g. s1), then prompt the user for string 2 (e.g. s2).
  - Call your isReverse method passing it the first and second strings entered by the user.
  - If they are the reverse print s1+” is the reverse of “+s2
  - If they the second is not the reverse of the first, print s1+” is not the reverse of “+s2

### Sample Output:

[illegible]

[illegible]

```
I must study recursion until it makes sense
I must study recursion until it makes sense
I must study recursion until it makes sense
```

```
Enter the first string
abcd
Enter the second string
dcba
abcd is the reverse of dcba
```

```
**Separate run, ignoring the first 100 lines...**
Enter the first string
a
Enter the second string
a
a is the reverse of a
```

```
**Separate run, ignoring the first 100 lines...**
Enter the first string
abcd
Enter the second string
ddba
abcd is not the reverse of ddba
```

```
**Separate run, ignoring the first 100 lines.  Note here we are
hitting return for each string, which sends empty string**
Enter the first string
```

```
Enter the second string

is the reverse of
```

## **Submission Guidelines:**

You will turn in one program.

Please follow the posted submission guidelines here:

<https://ccse.kennesaw.edu/fye/submissionguidelines.php>

Ensure you submit before the deadline listed on the lab schedule for CSE1322L here:

<https://ccse.kennesaw.edu/fye/courseschedules.php>