

## IDENTIFICATION: Brushup# 5 / PELE

### Overall Purpose

The overall purpose for the group of 'Brush-up' assignments is to be able to quick, safe and sure in creating and using model classes, methods using collections and basic string operations.

The whole group of assignments consist of five steps:

1. [A simple model class with constraints.](#)
2. [More advanced and complex model classes.](#)
3. [Testing a model class.](#)
4. [Methods deal with collections.](#)
5. **String manipulations. (This Assignment)**

### Background Material:

C# note by Per Laursen from 1<sup>st</sup> semester

(<https://github.com/perl-easj/Teaching-materials/tree/master/CSharpProgramming/Notes>)

Chapters: prog2.

C# reference:

<https://docs.microsoft.com/en-us/dotnet/api/system.string?view=netframework-4.8>

<https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/strings/>

## This Assignment: Brushup# 5

### Purpose

The purpose of this assignment is to build up skills of maintaining Strings.

### Mission

You are to

- 

### Domain description

In overall, you are to use different string methods.

## Assignment 1: Simple String operations

### Step 1:

You should create a new Console Application 'StringManipulations'. Create a class StringWorker with a method Start. In main make an object of StringWorker and call Start.

### Step 2:

In the Start-method make a string variable:

```
String str = "all of you, we are working with strings";
```

Do the following:

- Add "Hello" in the front of the string and save the result in a variable 'fullStr'. Printout the fullStr
- In a variable letterCount save the number of letters in str, Printout letterCount
- Take the fullStr and put it into Capitalized Letters and save the result in UPPERSTR. Printout UPPERSTR
- Find the location in the str-string the word 'we' and print it out.
- Make a substring from the str. Starting from 'we' and the rest of the string and print it out (should result in "we are working with strings")
- Does the str. hold the word 'peter'? What about 'with'?
- Does the str. starts with 'Hello'? does fullStr?

### Step 3:

Continue in the start-method and with the str.

- Exchange the word 'we' with the word 'you' and print out the whole str.
- Remove the ',' from str.
- What is the difference between str = null and str = ""?

## Assignment 2: More String operations

- Find out if `str="peter"` is equal to `str2="peter"`
- What is largest of the strings `"peter"` and `"Peter"`
- Can you revert a string `"peter"` into `"retep"` (hint to `CharArray` + `For-loop`)
- Find out if a string is a palindrome (see <https://en.wikipedia.org/wiki/Palindrome>)  
I.e. it is spelling the same forward and backwards e.g. `radar` or `rotor`
- How many words are in the string (Hint use `'string'.Split` ). and print it out
- What are the third word in the string `str`. and print it out
- Use `StringBuilder` to build up a string with fruits first append `"apple"`, `"orange"`, `"pear"` and at the end `"banana"`
- Check if a string is null
- Check if a string is empty
- Remove all blanks in the beginning and the end of a string