

# String Practice Problems

## 1. String characters balance Test

Write a program to check if two strings are balanced. For example, strings s1 and s2 are balanced if all the characters in the s1 are present in s2. The character's position doesn't matter.

**Given:** **Case 1:**

```
s1 = "Yn"  
s2 = "PYnative"
```

**Expected Output:**

```
True
```

**Case 2:**

```
s1 = "Ynf"  
s2 = "PYnative"
```

**Expected Output:**

```
False
```

## 2. Find all occurrences of a substring in a given string by ignoring the case

Write a program to find all occurrences of "USA" in a given string ignoring the case.

**Given:**

```
str1 = "Welcome to USA. usa awesome, isn't it?"
```

```
The USA count is: 2
```

### 3. Calculate the sum and average of the digits present in a string

Given a string s1, write a program to return the sum and average of the digits that appear in the string, ignoring all other characters. **Given:**

```
str1 = "PYnative29@#8496"
```

**Expected Outcome:**

```
Sum is: 38 Average is 6.333333333333333
```

### 4. Write a program to count occurrences of all characters within a string

**Given:**

```
str1 = "Apple"
```

**Expected Outcome:**

a → 1, p → 2, l → 1, e → 1

## 5. Find the last position of a given substring

Write a program to find the last position of a substring “Emma” in a given string.

**Given:**

```
str1 = "Emma is a data scientist who knows Python. Emma works at google."
```

**Expected Output:**

```
Last occurrence of Emma starts at index 43
```

## 6. Split a string on hyphens

Write a program to split a given string on hyphens and display each substring.

**Given:**

```
str1 = Emma-is-a-data-scientist
```

**Expected Output:**

```
Displaying each substring
```

```
Emma
```

```
is
```

```
a
```

```
data
```

```
scientist
```

## 7. Find words with both alphabets and numbers

Write a program to find words with both alphabets and numbers from an input string.

**Given:**

```
str1 = "Emma25 is Data scientist50 and AI Expert"
```

**Expected Output:**

```
Emma25  
scientist50
```

## 8. Replace each special symbol with # in the following string

**Given:**

```
str1 = '/*Jon is @developer & musician!!'
```

**Expected Output:**

```
##Jon is #developer # musician##
```