**Day 13 Python – RegEX**

Python has a built-in package called re, which can be used to work with Regular Expressions.

**Import re**

The re module offers a set of functions that allows us to search a string for a match:

A Regular Expression (RegEx) is a sequence of characters that defines a search pattern. For example,

^b...g$

The above code defines a RegEx pattern. The pattern is: any five letter string starting with b and ending with g.

A pattern defined using RegEx can be used to match against a string.

Expression String Matched?

^b...g$ Bag No match

Buuug Match

Baaag Match

Bgm No match

Buiscuit No match

**re.findall()**

The re.findall() method returns a list of strings containing all matches.

**re.split()**

The re.split method splits the string where there is a match and returns a list of strings where the splits have occurred.

**re.sub()**

The syntax of re.sub() is:

re.sub(pattern, replace, string)

re.search()

The **re.search()** method takes two arguments: a pattern and a string. The method looks for the first location where the RegEx pattern produces a match with the string.

**Exercise:**

Write a Python program for all the cases which can check a string contains only a certain set of characters (in this case a-z, A-Z and 0-9).

Write a Python program that matches a word containing 'ab'.

Write a Python program to check for a number at the end of a word/sentence.

Write a Python program to search the numbers (0-9) of length between 1 to 3 in a given string

Write a Python program to match a string that contains only uppercase letters