	6. EXAMPLES 2

Examples with Character Ranges

Introduction

As we have already seen a Character Class (or Character Set) is **a list of characters enclosed in square brackets, and any one of those characters will represent a match to the class**.

And a range is represented using the dash symbol, for example:

`[a-z]`	Any character from "a" to "z", so, all the lowercase letters.
`[A-Z]`	Any character from "A" to "Z", so, all the uppercase letters.
`[0-9]`	Any character from "0" to "9", so, all the numbers.

Combining Character Ranges

We will also remember that we can represent "Dami(a|e)n" as follows:

`RegEx_Pattern = "Dami[ae]n"`

Therefore, if we want to match any letter that is uppercase or lowercase, we can do:

`RegEx_Pattern = "[a-zA-Z]"`

Which means any letter that is lowercase or uppercase, e.g. "A", "a", "z", or "Z".

If we want to match one or more letters that are uppercase or lowercase:

`RegEx_Pattern = "[a-zA-Z]+"`

Which means any letter that is lowercase or uppercase ([a-zA-z]) , one or more times (plus sign), e.g., "A", "a", "z", "Z", "Dog", "Cat", "fish", "BIRD", etc.

To match any combination of lowercase and numerical characters:

`RegEx_Pattern = "[a-z0-9]+"`

Which means any lowercase character ([a-z]) or any numerical character ([0-9]), one or more times (plus sign), e.g. "r2d2" or "c3po".

To match any combination of lowercase, uppercase and numerical characters:

`RegEx_Pattern = "[a-zA-Z0-9]+"`

Which means any lowercase character ([a-z]), or any uppercase character ([A-Z]) or any numerical character ([0-9]), one or more times (plus sign).

Matching with Multiple Characters

We have seen already that if we are trying to find matches for the phrase "RegEx" or "Regular Expression" in a document, we could use a vertical bar, as follows:

`RegEx_Pattern = "RegEx|Regular Expression"`

Or use the Question Mark metacharacter, as follows:

`RegEx_Pattern = " Reg(ular )?Ex(pression)?"`

And we can also get an approximate match as follows:

`RegEx_Pattern = " Reg[a-z]*Ex[a-z]*"`

"Reg" followed by zero or more lowercase letters, and "Ex" followed by the same.

#RegExThursday © Damian Gordon