- [] → Square brackets
  - Square brackets specifies a set of characters you wish to match.

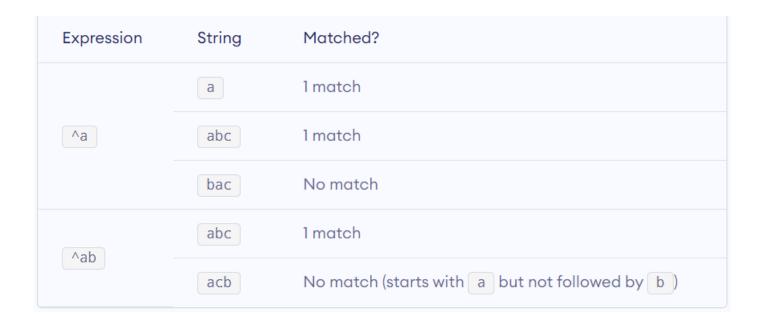


- You can complement (invert) the character set by using caret ^ symbol at the start of a square-bracket.
  - [^abc] means any character except a or b or c.
  - [^0-9] means any non-digit character.

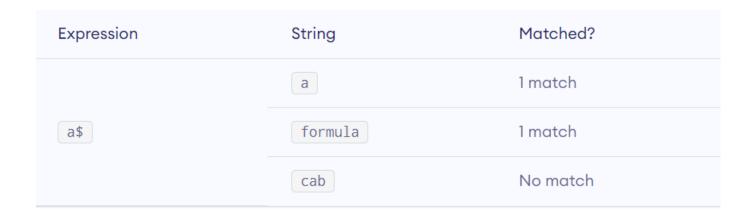
- $\rightarrow$  Period
  - A period matches any single character (except newline '\n').



- ^ → Caret
  - The caret symbol ^ is used to check if a string starts with a certain character.



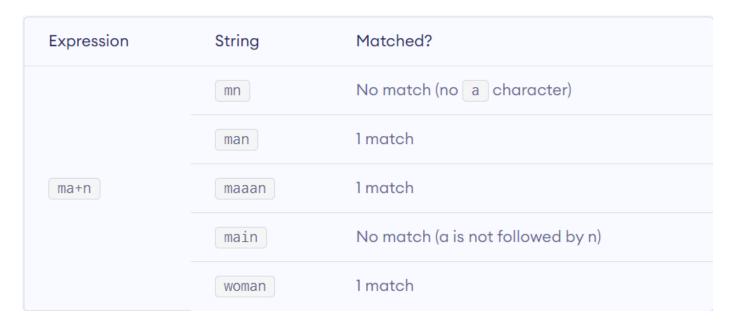
- \$ → Dollar
  - The dollar symbol is used to check if a string ends with a certain character.



- \* → Star
  - The star symbol matches zero or more occurances of the pattern left to it.



- $+ \rightarrow$  Plus
  - The plus symbol matches one or more occurrences of the pattern left to it.



- ? → Question Mark
  - The question mark symbol matches zero or one occurrence of the pattern left to it.



- {} → Braces
  - Consider this code: {n,m}. This means at least n,
    and at most m repetitions of the pattern left to it.



• This RegEx [0-9]{2, 4} matches at least 2 digits but not more than 4 digits.

Expression	String	Matched?
[0-9]{2,4}	ab123csde	1 match (match at ab <u>123</u> csde )
	12 and 345673	2 matches (at 12 and 345673)
	1 and 2	No match

- | → Alternation:
  - Vertical bar is used for alternation (or operator).



- () → Group
  - Parentheses is used to group sub-patterns.
  - For example, (a|b|c)xz match any string that matches either a or b or c followed by xz.

#### • \ → Backslash

- Backlash \ is used to escape various characters including all metacharacters.
- For example, \\$a match if a string contains \$ followed by a. Here, \$ is not interpreted by a RegEx engine in a special way.
- If you are unsure if a character has special meaning or not, you can put \ in front of it. This makes sure the character is not treated in a special way.

 A character class matches any one of a set of characters. It is used to match the most basic element of a language like a letter, a digit, space, a symbol etc.

```
/s: matches any whitespace characters such as space and tab
```

**/S**: matches any non-whitespace characters

/d : matches any digit character

**/D**: matches any non-digit characters

/w: matches any word character (basically alpha-numeric)

/W: matches any non-word character

 In compute programming, whitespace is any character or series of characters that represent horizontal or vertical space in typography.