**Regular Expressions**

Based on *An Introduction to Regular Expressions by Thomas Nield*

**Website for Testing REs:** <https://regex101.com/>

**Python Package:** re – **Example:** re.fullmatch(pattern= "[A-Z]{2}", string="TX")

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**Special Characters:** [\^$.|?\*+()

**Literals:** Escape the special characters with \

Also, add \ to certain letters, e.g. \s matches any whitespace

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**Character Ranges/Character Class:** e.g. to match a string containing a character of 0, 1 or 2 followed by a character of A, B or C -> use character range inside square brackets

**Example:** Regex = [012][ABC]

Input String = 1B

Match = True

**Consecutive Span of Letters/Numbers:** The above pattern can be shortened with the use of a dash -, as we can write it this way

**Example:** Regex = [0-2][A-C]

Input String = 2C

Match = True

**Qualify Multiple Ranges on a Single Character:** e.g. qualify the first character of a string to be either an uppercase letter, lowercase letter or a number

**Example:** Regex = [A-Za-z0-9][0-9]

Input String = i7

Match = True

**Negate Characters:** Match anything but the specified characters using carrot ^

**Example:** Qualify non-vowel letters

Regex = [^AEIOU]

Input String = X

Match = True

**Include Literal Dash in Character Range:** Declare it first in the range

**Example:** Regex = [-0-9][0-9]

Input String = -9

Match = True

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**Anchors:**