*   String datatype in Python...

.   What is String ?

→   A sequence of characters enclosed in single quote (' ') double quotes (" "), wer triple quotes.

Example:

    greet = 'Hello'   Single Quote

    mom = "world"   Double Quotes

    Address = """ Flat 23, Avinash Apartments,   Multiline String
                 Ekta Nagar, Osmanpura,
                 Aurangabad """

.   As like Numbers, Strings are also "Immutable"
That means if you change anything in a string using its
methods, then a completely new string object is returned.

For Example:

    name = "Shaill"

    capitalizedName = name.upper();
     print (f" My name is: {name}");
     print (f" Id of name is: {id(name)}")
     print (f" Name in Uppercase: {capitalizedName}")
     print (f" Id of Name in uppercase: {id(capitalizedName)}")

Here, I"ll get different Id's Which proves that String is "Immutable"...

. String Operations:

1) Concatenation

joins two strings.

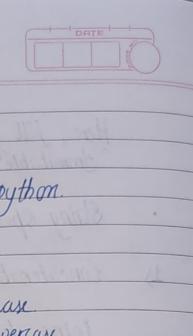print ("Hello " + "World")
O/p: Hello World.

2) Repetition

print ("ha" * 3)
O/p: hahaha.

3) Indexing.

As String is a sequence of characters, these characters of a string can be acussed via indexing...

language = "python"

```
print (language [0]) // p
print (language [1]) // y
print (language [2]) // t
print (language [3]) // h
print (language [4]) // o
print (language [5]) // n
```

String Methods...

Commonly used string methods in python.

1. Case Conversion

- upper() → Transforms a string to uppercase.
- lower() → Transforms a string to lowercase.
- capital() → Transforms first letter of a string to uppercase.
- title() → Transforms each word's first letter into uppercase.
- swapcase() → Transforms lowercase letters to uppercase & vice versa.

2. Whitespace & cleaning...

- strip(): Trims starting + trailing whitespaces.
- lstrip(): Trims left whitespaces in a string.
- rstrip(): Trims right whitespaces in a string.

3. Search & check.

- startswith (substring) → checks if the provided string starts with provided substring.

- endswith (substring) → checks if the provided string ends with provided substring.

- find (substring) → gives you index of provided substring.

- count (substring) → gives the count of occurence of substring

4. Replace & Modify.

- replace (old, new) → replaces a substring with another one.
- split (delimiter) → splits a string into a list.
- rsplit (delimiter) → splits string from right.
- splitlines () → converts multiline string into list of lines.
- join (iterable) → concatinates item of an iterable into a single string.

5. Validation / checking.

This methods returns True/False.

- isalnum () → checks if a string contains only letters + numbers.
- isalpha () → checks if a string contains only letters.
- isdigit () → checks if a string contains only digits.
- isdecimal() → checks if a string contains only decimal digits.
- isspace () → checks if a string contains only whitespace.
- islower () → checks if a string is in lowercase.
- isupper () → checks if a string is in uppercase.
- istitle () → checks if a string is in title-case.