

# Built-in String Functions

## 1. String Creation:

- `str()`: Converts an object into a string.

## 2. String Concatenation:

- `+`: Concatenates two strings.

## 3. String Length:

- `len()`: Returns the length of a string.

## 4. String Indexing:

- `[]`: Accesses individual characters in a string.

## 5. Substring Extraction:

- `str[start:end]`: Returns a substring from index `start` to `end-1`.
- `str[:end]`: Returns a substring from the beginning to index `end-1`.
- `str[start:]`: Returns a substring from index `start` to the end.

## 6. String Repetition:

- `*`: Repeats a string a specified number of times.

## 7. String Case Conversion:

- `str.upper()`: Converts all characters to uppercase.
- `str.lower()`: Converts all characters to lowercase.
- `str.capitalize()`: Capitalizes the first character.
- `str.title()`: Converts the first character of each word to uppercase.

<https://docs.python.org/3/library/stdtypes.html#text-sequence-type-str>

## 8. String Stripping:

- `str.strip()`: Removes leading and trailing whitespaces.
- `str.lstrip()`: Removes leading whitespaces.
- `str.rstrip()`: Removes trailing whitespaces.

## 9. String Splitting:

- `str.split()`: Splits a string into a list of substrings based on whitespace.
- `str.split(sep)`: Splits a string into a list using the specified separator.

## 10. String Joining:

- `str.join(iterable)`: Concatenates strings from an iterable using the specified string as a separator.

## 11. String Formatting:

- `str.format()`: Formats a string by substituting placeholders with values.
- `f"{variable}"` (f-strings): Allows embedding expressions inside string literals.

## 12. String Search:

- `str.find(substring)`: Returns the lowest index of the substring. Returns -1 if not found.
- `str.index(substring)`: Returns the lowest index of the substring. Raises an exception if not found.
- `str.count(substring)`: Returns the number of occurrences of the substring.

## 13. String Replacement:

- `str.replace(old, new)`: Replaces occurrences of the old substring with the new substring.

## 14. String Checking:

- `str.startswith(prefix)`: Checks if the string starts with the specified prefix.
- `str.endswith(suffix)`: Checks if the string ends with the specified suffix.
- `str.isalpha()`: Checks if all characters in the string are alphabetic.
- `str.isdigit()`: Checks if all characters in the string are digits.
- `str.isalnum()`: Checks if all characters in the string are alphanumeric.
- `str.isspace()`: Checks if all characters in the string are whitespaces.