

Most Used String Functions in Python (with Examples)

1. Case Conversion

- str.upper() -> Converts to uppercase.

```
"hello".upper() # "HELLO"
```

- str.lower() -> Converts to lowercase.

```
"HELLO".lower() # "hello"
```

- str.title() -> Capitalizes first letter of each word.

```
"hello world".title() # "Hello World"
```

- str.capitalize() -> Capitalizes only first letter.

```
"hello world".capitalize() # "Hello world"
```

- str.swapcase() -> Swaps uppercase and lowercase.

```
"HeLLo".swapcase() # "hElLo"
```

2. Searching & Finding

- str.find(sub) -> Returns index of first occurrence (or -1).

```
"python".find("th") # 2
```

- str.index(sub) -> Like find(), but raises ValueError if not found.

- str.rfind(sub) -> Finds last occurrence.

- str.startswith(prefix) -> Checks if string starts with given value.

```
"python".startswith("py") # True
```

- str.endswith(suffix) -> Checks if string ends with given value.

3. Replace & Modify

- str.replace(old, new) -> Replaces all occurrences.

```
"I love Java".replace("Java", "Python") # "I love Python"
```

- str.strip() -> Removes leading and trailing spaces.

```
" hello ".strip() # "hello"
```

- str.lstrip() / str.rstrip() -> Removes left or right spaces.

4. Splitting & Joining

- str.split(sep) -> Splits string into list.

```
"a,b,c".split(",") # ['a', 'b', 'c']
```

- str.rsplit(sep, maxsplit) -> Splits from the right.

- str.splitlines() -> Splits string at line breaks.

- str.join(iterable) -> Joins list elements into a string.

```
"-".join(["a", "b", "c"]) # "a-b-c"
```

5. Checking Type of String (Returns True/False)

- `str.isalpha()` -> All letters?
- `str.isdigit()` -> All digits?
- `str.isalnum()` -> Letters or digits?
- `str.isspace()` -> Only spaces?
- `str.isupper()` / `str.islower()` -> All uppercase or lowercase?
- `str.istitle()` -> Is in title case?

6. Formatting

- `str.format()` -> String formatting.

```
"My name is {}".format("Gauri")
```

- f-strings (Python 3.6+) -> Fast formatting.

```
name = "Gauri"
```

```
f"My name is {name}" # "My name is Gauri"
```

7. Miscellaneous

- `len(str)` -> Length of string.

- `str.count(sub)` -> Counts occurrences.

```
"banana".count("a") # 3
```

- `str.zfill(width)` -> Pads with zeros.

```
"42".zfill(5) # "00042"
```

- `str.center(width, fillchar)` -> Centers with padding.