

# Python Strings Cheat Sheet for Revision

## Python Strings Master Revision

### 1. Definition & Creation

- **Syntax:** Created using `'', " ", or '''''' (for multi-line).
- **Immutability:** Strings cannot be changed in-place. Any modification creates a *new* string.

### 2. Slicing (The Surgery)

- **Rule:** `[start:stop:step]` (Stop index is **exclusive**).
- **Positive:** `[0:3]` -> First three characters.
- **Negative:** `[-4:]` -> Last four characters.
- **Mixed:** `[1:-1]` -> Removes first and last character.
- **Direction:** If `start > stop`, step must be negative (e.g., `[::-1]` to reverse).

### 3. String Math & Membership

- **Concatenation (+):** Joins strings.
- **Multiplication (\*):** Repeats a string `n` times.
- **Membership (in / not in):** Returns True/False if substring exists.
- **Comparison:** Case-sensitive. `A` (65) < `a` (97). Uppercase comes before lowercase.

### 4. Essential Methods (The Power Tools)

- **Cleaning:** `strip()` (removes whitespace), `replace(old, new)`.
- **Case:** `lower()`, `upper()`, `title()`.
- **Search:** `startswith("prefix")`, `endswith("ext")`, `count()`, `find()`.

- **Structural:**

- `split("-")`: String -> List.
- `"-".join(list)`: List -> String.

## 5. Pro-Tips

- **Method Chaining:** `s.strip().lower().replace(" ", "\_")`
- **Efficiency:** Use `join()` over `+` in loops for better performance.