

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:**

- ``s.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.