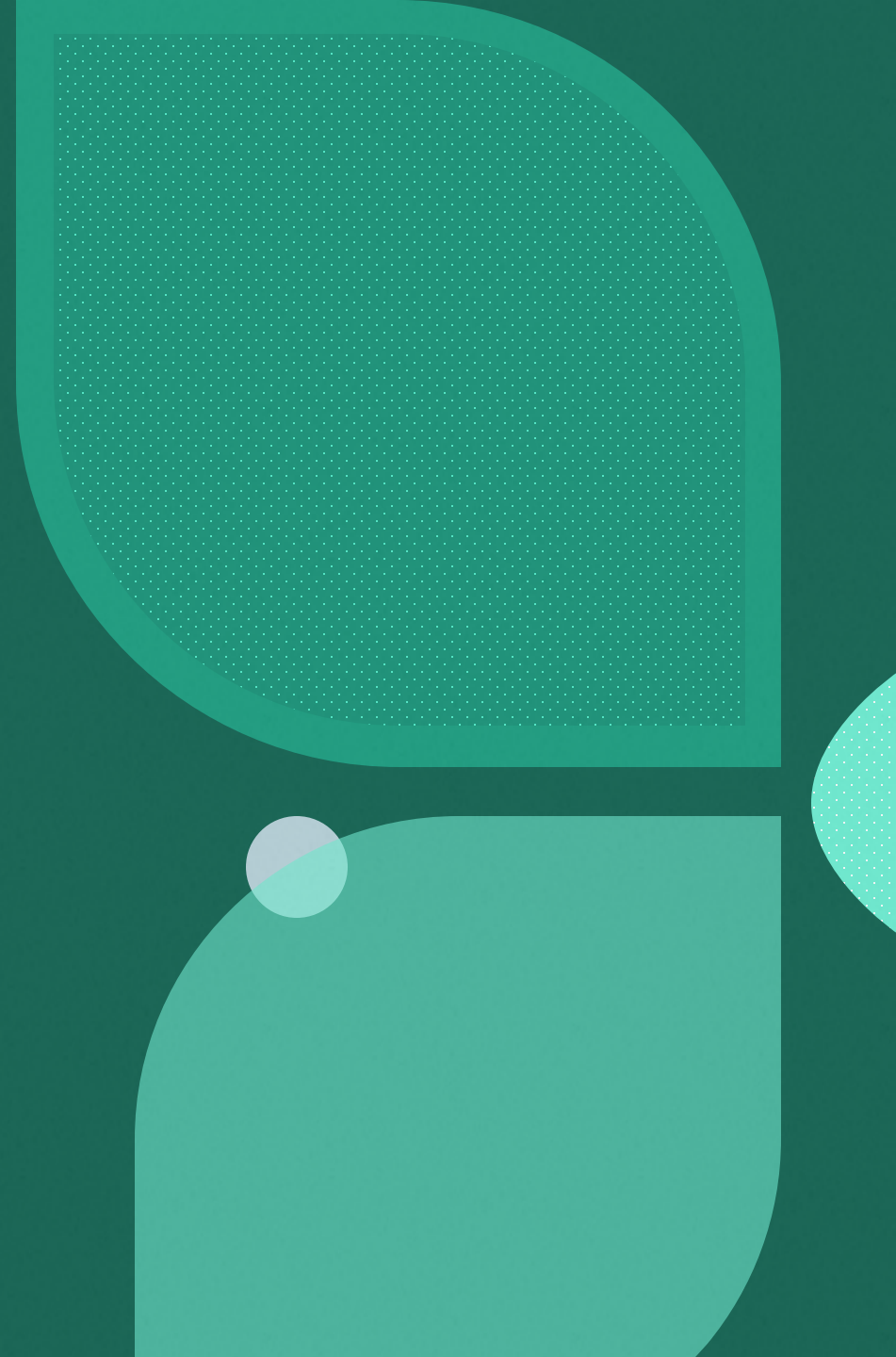


Tops Technology

Module 15) Advance Python Programming

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Search and Match Functions

1. Using `re.search()` and `re.match()` functions in Python's `re` module for pattern matching

- `re.search()`
 - **Purpose:** Searches the entire string for the first occurrence of the pattern.
 - **Returns:** A match object if the pattern is found; otherwise, `None`.
 - **Usage:** Useful for finding a pattern **anywhere** in the string.
- `re.match()`
 - **Purpose:** Checks for a match only **at the beginning** of the string.
 - **Returns:** A match object if the pattern matches the start; otherwise, `None`.
 - **Usage:** Use when the pattern is expected at the start of the string.

2.Difference between search and match.

ASPECT	SEARCH	MATCH
Scope	Searches the entire string for the first occurrence of the pattern.	Checks the pattern only at the beginning of the string
Use Case	Use when the pattern can appear anywhere in the string.	Use when the pattern must appear at the start of the string.
Return Value	Returns a match object if the pattern is found anywhere; otherwise, None.	Returns a match object if the pattern matches the start; otherwise, None.
Example	<code>re.search(r'world', 'Hello, world!')</code> finds "world".	<code>re.match(r'world', 'Hello, world!')</code> returns None.