Computing Fundamentals using Python

SUBJECT CODE : UQ25CA151A

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Computer Applications

Strings common operations

Slicing

Slicing = extracting a part of a string (substring) using index positions.

Syntax:
string[start : stop : step]

- **start →** index where slice begins (inclusive).
- **stop →** index where slice ends (exclusive).
- **step →** interval (default = 1).

Strings common operations

Slicing : Example

s = "HelloWorld"

print(s[0:5])   # 'Hello' → chars from index 0 to 4

print(s[:5])   # 'Hello' → start defaults to 0

print(s[5:])   # 'World' → till the end

print(s[:])   # 'HelloWorld' → whole string

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Slicing Example : Using Negative Index

s = "HelloWorld"

print(s[-5:])   # 'World' (last 5 characters)

print(s[:-5])   # 'Hello' (exclude last 5 characters)

print(s[-5:-2]) # 'Wor'

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Slicing Example : Using steps

s = "PythonProgramming"

print(s[0:10:2]) # 'Pto rg' (every 2nd char)

print(s[::3])   # 'Ph rgm' (every 3rd char)

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Slicing Example : reversing string

s = "Hello"

print(s[::-1])   # 'olleH'

print(s[::-2])   # 'olH' (every 2nd char in reverse)

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Slicing Example : Out-of-Range Slicing

s = "Hello"

print(s[0:100]) # 'Hello' (Python auto-adjusts)

Note : No error → it adjusts automatically.

Strings common operations

Slicing Example

date = "2025-09-29"

year = date[:4]   # '2025'

month = date[5:7] # '09'

day = date[8:]   # '29'

Strings common operations

Slicing Example : Check whether given string MADAM is palindrome or not

word = "madam"

print(word == word[::-1]) # True

Strings common operations

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word = "madam"

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THANK YOU

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