Module 1 Cheat Sheet: Python Basics

Package/Method	Description	Code Example
Comments	Comments are lines of text that are ignored by the Python interpreter when executing the code<./td>	`# This is a comment`

Concatenation	Combines (concatenates) strings.	Syntax:
		`concatenated_string = string1 + string2`
		Example:
		`result = "Hello" + " John"</td>`

Data Types	- Integer - Float - Boolean - String	Example:
		`x=7`
		`# Integer Value`
		`y=12.4`
		`# Float Value`
		`is_valid = True`
		`# Boolean Value`
		`is_valid = False`
		`# Boolean Value`
		`F_Name = "John"`
		`# String Value`

Indexing	Accesses character at a specific index.	Example:
		`my_string="Hello"`
		`char = my_string[0]`

len()	Returns the length of a string.	Syntax: `len(string_name)`

		Example:
		`my_string="Hello"`
		`length = len(my_string)`

lower()	Converts string to lowercase.	Example:
		`my_string="Hello"`
		`uppercase_text = my_string.lower()`

print()	Prints the message or variable inside `()`.	Example:
		`print("Hello, world")`
		`print(a+b)`

Python Operators	- Addition (+): Adds two values together.
	- Subtraction (-): Subtracts one value from another.
	- Multiplication (*): Multiplies two values.
	- Division (/): Divides one value by another, returns a float.
	- Floor Division (//): Divides one value by another, returns the quotient as an integer.
	- Modulo (%): Returns the remainder after division.
		Example:
		`x = 9 y = 4`
		`result_add= x + y # Addition`
		`result_sub= x - y # Subtraction`
		`result_mul= x * y # Multiplication`
		`result_div= x / y # Division`
		`result_fdiv= x // y # Floor Division`
		`result_mod= x % y # Modulo</td>`

replace()	Replaces substrings.	Example:
		`my_string="Hello"`
		`new_text = my_string.replace("Hello", "Hi")`

Slicing	Extracts a portion of the string.	Syntax: `substring = string_name[start:end]` Example:

		`my_string="Hello" substring = my_string[0:5]`

split()	Splits string into a list based on a delimiter.	Example:
		`my_string="Hello"`
		`split_text = my_string.split(",")`

strip()	Removes leading/trailing whitespace.	Example:
		`my_string="Hello"`
		`trimmed = my_string.strip()`

upper()	Converts string to uppercase.	Example:
		`my_string="Hello"`
		`uppercase_text = my_string.upper()`

Variable Assignment	Assigns a value to a variable.	Syntax:
		`variable_name = value`
		Example:
		`name="John" # assigning John to variable name`
		`x = 5 # assigning 5 to variable x`

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