Module 1 Cheatsheet: 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	```1. 1``` ```1. # This is a comment``` [Copied]
Concatenation	Combines (concatenates) strings.	Syntax: ```1. 1``` ```1. concatenated_string = string1 + string2``` [Copied] Example: ```1. 1``` ```1. result = "Hello" + " John"</td>``` [Copied]
Data Types	- Integer - Float - Boolean - String	Example: ```1. 1``` ```2. 2``` ```3. 3``` ```4. 4``` ```5. 5``` ```6. 6``` ```7. 7``` ```8. 8``` ```9. 9``` ```10. 10``` ```1. a=7``` ```2. # Integer Value``` ```3. y=12.6``` ```4. # Float Value``` ```5. is_valid = True``` ```6. # Boolean Value``` ```7. is_valid = False``` ```8. # Boolean Value``` ```9. ! Name = "John"``` ```10. # String Value``` [Copied]
Indexing	Accesses character at a specific index.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. char = my_string[0]``` [Copied]
len()	Returns the length of a string.	Syntax: ```1. 1``` ```1. len(string_name)``` [Copied] Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. length = len(my_string)``` [Copied]
lower()	Converts string to lowercase.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. uppercase_text = my_string.lower()``` [Copied]
print()	Prints the message or variable inside `()`.	Example: ```1. 1``` ```2. 2``` ```1. print("Hello, world")``` ```2. print(a+b)``` [Copied]
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: ```1. 1``` ```2. 2``` ```3. 3``` ```4. 4``` ```5. 5``` ```6. 6``` ```7. 7``` ```1. x = 9 y = 4``` ```2. result_add= x + y # Addition``` ```3. result_sub= x - y # Subtraction``` ```4. result_mul= x * y # Multiplication``` ```5. result_div= x / y # Division``` ```6. result_fdiv= x // y # Floor Division``` ```7. result_mod= x % y # Modulo</td>``` [Copied]
replace()	Replaces substrings.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. new_text = my_string.replace("Hello", "Hi")``` [Copied]
Slicing	Extracts a portion of the string.	Syntax: ```1. 1``` ```1. substring = string_name[start:end]``` [Copied] Example: ```1. 1``` ```1. my_string="Hello" substring = my_string[0:5]``` [Copied]
split()	Splits string into a list based on a delimiter.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. split_text = my_string.split(",")``` [Copied]
strip()	Removes leading/trailing whitespace.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. trimmed = my_string.strip()``` [Copied]
upper()	Converts string to uppercase.	Example: ```1. 1``` ```2. 2``` ```1. my_string="Hello"``` ```2. uppercase_text = my_string.upper()``` [Copied]
Variable Assignment	Assigns a value to a variable.	Syntax: ```1. 1``` ```1. variable_name = value``` [Copied] Example: ```1. 1``` ```2. 2``` ```1. name="John" # assigning John to variable name``` ```2. x = 5 # assigning 5 to variable x``` [Copied]

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