

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>	<pre>1 # This is a comment</pre>
Concatenation	Combines (concatenates) strings.	<p>Syntax:</p> <pre>1 concatenated_string = string1 + str</pre> <p>Example:</p> <pre>1 result = "Hello" + " John"</td></pre>
Data Types	- Integer - Float - Boolean - String	<p>Example:</p> <pre>1 x=7 2 # Integer Value 3 y=12.4 4 # Float Value 5 is_valid = True 6 # Boolean Value 7 is_valid = False 8 # Boolean Value 9 F_Name = "John" 10 # String Value</pre>
Indexing	Accesses character at a specific index.	<p>Example:</p> <pre>1 my_string="Hello" 2 char = my_string[0]</pre>
len()	Returns the length of a string.	<p>Syntax:</p> <pre>1 len(string_name)</pre> <p>Example:</p> <pre>1 my_string="Hello" 2 length = len(my_string)</pre>
lower()	Converts string to lowercase.	<p>Example:</p> <pre>1 my_string="Hello" 2 uppercase_text = my_string.lower()</pre>
print()	Prints the message or variable inside `()`.	<p>Example:</p> <pre>1 print("Hello, world") 2 print(a+b)</pre>
Python Operators	<ul style="list-style-type: none">- 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.	<p>Example:</p> <pre>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 Divisio 7 result_mod= x % y # Modulo</td></pre>

replace()	Replaces substrings.	<p>Example:</p> <pre> 1 my_string="Hello" 2 new_text = my_string.replace("Hello </pre>
Slicing	Extracts a portion of the string.	<p>Syntax:</p> <pre> 1 substring = string_name[start:end] </pre> <p>Example:</p> <pre> 1 my_string="Hello" substring = my_st </pre>
split()	Splits string into a list based on a delimiter.	<p>Example:</p> <pre> 1 my_string="Hello" 2 split_text = my_string.split(",") </pre>
strip()	Removes leading/trailing whitespace.	<p>Example:</p> <pre> 1 my_string="Hello" 2 trimmed = my_string.strip() </pre>
upper()	Converts string to uppercase.	<p>Example:</p> <pre> 1 my_string="Hello" 2 uppercase_text = my_string.upper() </pre>
Variable Assignment	Assigns a value to a variable.	<p>Syntax:</p> <pre> 1 variable_name = value </pre> <p>Example:</p> <pre> 1 name="John" # assigning John to var 2 x = 5 # assigning 5 to variable x </pre>