

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># This is a comment</pre>
Concatenation	Combines (concatenates) strings.	<div>Syntax:<pre>concatenated_string = string1 + string2</pre></div> <div>Example:<pre>result = "Hello" + " John"</td></pre></div>
Data Types	- Integer - Float - Boolean - String	<div>Example:</div> <pre>x=7 # Integer Value y=12.4 # Float Value is_valid = True # Boolean Value is_valid = False # Boolean Value F_Name = "John" # String Value</pre>
Indexing	Accesses character at a specific index.	<div>Example:</div> <pre>my_string="Hello" char = my_string[0]</pre>
len()	Returns the length of a string.	<div>Syntax:<pre>len(string_name)</pre></div> <div>Example:<pre>my_string="Hello" length = len(my_string)</pre></div>
lower()	Converts string to lowercase.	<div>Example:</div> <pre>my_string="Hello" uppercase_text = my_string.lower()</pre>
print()	Prints the message or variable inside `()`.	<div>Example:</div> <pre>print("Hello, world") print(a+b)</pre>

Python Operators	<div>- Addition (+): Adds two values together.</div> <div>- Subtraction (-): Subtracts one value from another.</div> <div>- Multiplication (*): Multiplies two values.</div> <div>- Division (/): Divides one value by another, returns a float.</div> <div>- Floor Division (/): Divides one value by another, returns the quotient as an integer.</div> <div>- Modulo (%): Returns the remainder after division.</div>	<div>Example:</div> <div><pre>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</pre></div>
replace()	Replaces substrings.	<div>Example:</div> <div><pre>my_string="Hello" new_text = my_string.replace("Hello", "Hi")</pre></div>
Slicing	Extracts a portion of the string.	<div>Syntax:</div> <div><pre>substring = string_name[start:end]</pre></div> <div>Example:</div> <div><pre>my_string="Hello" substring = my_string[0:5]</pre></div>
split()	Splits string into a list based on a delimiter.	<div>Example:</div> <div><pre>my_string="Hello" split_text = my_string.split(",")</pre></div>
strip()	Removes leading/trailing whitespace.	<div>Example:</div> <div><pre>my_string="Hello" trimmed = my_string.strip()</pre></div>
upper()	Converts string to uppercase.	<div>Example:</div> <div><pre>my_string="Hello" uppercase_text = my_string.upper()</pre></div>
Variable Assignment	Assigns a value to a variable.	<div>Syntax:</div> <div><pre>variable_name = value</pre></div> <div>Example:</div> <div><pre>name="John" # assigning John to variable name x = 5 # assigning 5 to variable x</pre></div>

