

## 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.	Syntax: <pre>concatenated_string = string1 + string2</pre> Example: <pre>result = "Hello" + " John"</pre>
Data Types	- Integer - Float - Boolean - String	Example: <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.	Example: <pre>my_string="Hello" char = my_string[0]</pre>
len()	Returns the length of a string.	Syntax: <pre>len(string_name)</pre> Example: <pre>my_string="Hello" length = len(my_string)</pre>
lower()	Converts string to lowercase.	Example: <pre>my_string="Hello" uppercase_text = my_string.lower()</pre>
print()	Prints the message or variable inside `()` .	Example: <pre>print("Hello, world") print(a+b)</pre>
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: <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>
replace()	Replaces substrings.	Example: <pre>my_string="Hello" new_text = my_string.replace("Hello", "Hi")</pre>
Slicing	Extracts a portion of the string.	Syntax: <pre>substring = string_name[start:end]</pre> Example: <pre>my_string="Hello" substring = my_string[0:5]</pre>
split()	Splits string into a list based on a delimiter.	Example: <pre>my_string="Hello" split_text = my_string.split(",")</pre>
strip()	Removes leading/trailing whitespace.	Example: <pre>my_string="Hello" trimmed = my_string.strip()</pre>
upper()	Converts string to uppercase.	Example: <pre>my_string="Hello"</pre>

		<code>uppercase_text = my_string.upper()</code>
Variable Assignment	Assigns a value to a variable.	<div>Syntax: <code>variable_name = value</code></div> <div>Example: <code>name="John" # assigning John to variable name</code> <code>x = 5 # assigning 5 to variable x</code></div>



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