

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>	<div><div>1</div><div># This is a comment</div><div></div></div>
Concatenation	Combines (concatenates) strings.	<div>Syntax:<div><div>1</div><div>concatenated_string = string1 + string2</div><div></div></div><div>Example:<div><div>1</div><div>result = "Hello" + " John"</td></div></div></div></div>
Data Types	- Integer - Float - Boolean - String	<div>Example:<div><div>1</div><div>x=7</div><div>2</div><div># Integer Value</div><div>3</div><div>y=12.4</div><div>4</div><div># Float Value</div><div>5</div><div>is_valid = True</div><div>6</div><div># Boolean Value</div><div>7</div><div>is_valid = False</div><div>8</div><div># Boolean Value</div><div>9</div><div>F_Name = "John"</div><div>10</div><div># String Value</div></div></div>
Indexing	Accesses character at a specific index.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>char = my_string[0]</div></div></div>
len()	Returns the length of a string.	<div>Syntax:<div><div>1</div><div>len(string_name)</div><div></div></div><div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>length = len(my_string)</div></div></div></div>
lower()	Converts string to lowercase.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>uppercase_text = my_string.lower()</div></div></div>
print()	Prints the message or variable inside `)`.	<div>Example:<div><div>1</div><div>print("Hello, world")</div><div>2</div><div>print(a+b)</div></div></div>
Python Operators	<div>- 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.</div>	<div>Example:<div><div>1</div><div>x = 9 y = 4</div><div>2</div><div>result_add= x + y # Addition</div><div>3</div><div>result_sub= x - y # Subtraction</div><div>4</div><div>result_mul= x * y # Multiplication</div><div>5</div><div>result_div= x / y # Division</div><div>6</div><div>result_fdiv= x // y # Floor Division</div><div>7</div><div>result_mod= x % y # Modulo</td></div></div></div>
replace()	Replaces substrings.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>new_text = my_string.replace("Hello", "Hi")</div></div></div>
Slicing	Extracts a portion of the string.	<div>Syntax:<div><div>1</div><div>substring = string_name[start:end]</div><div></div></div><div>Example:<div><div>1</div><div>my_string="Hello" substring = my_string[0:5]</div><div></div></div></div></div>
split()	Splits string into a list based on a delimiter.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>split_text = my_string.split(",")</div></div></div>
strip()	Removes leading/trailing whitespace.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>trimmed = my_string.strip()</div></div></div>
upper()	Converts string to uppercase.	<div>Example:<div><div>1</div><div>my_string="Hello"</div><div>2</div><div>uppercase_text = my_string.upper()</div></div></div>
Variable Assignment	Assigns a value to a variable.	<div>Syntax:<div><div>1</div><div>variable_name = value</div><div></div></div><div>Example:<div><div>1</div><div>name="John" # assigning John to variable name</div><div>2</div><div>x = 5 # assigning 5 to variable x</div></div></div></div>