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. 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 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:

lower()	Converts string to lowercase.
print()	Prints the message or variable inside `()`.
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.
replace()	Replaces substrings.
Slicing	Extracts a portion of the string.

```
1. 1
2. 2

1. my_string="Hello"
2. length = len(my_string)
```

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Example:

```
1. 1
2. 2

1. my_string="Hello"
2. uppercase_text = my_string.lower()
```

Copied!

Example:

```
1. 1
2. 2

1. print("Hello, world")
2. print(a+b)
```

Copied!

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>
```

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Example:

```
1. 1
2. 2

1. my_string="Hello"
2. new_text = my_string.replace("Hello", "Hi")
```

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Syntax:

```
1. 1

1. substring = string_name[start:end]
```

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Example:

```
1. 1

1. my_string="Hello" substring = my_string[0:5]
```

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split()	Splits string into a list based on a delimiter.
strip()	Removes leading/trailing whitespace.
upper()	Converts string to uppercase.
Variable Assignment	Assigns a value to a variable.

Example:

```
1
2
```

```
my_string="Hello"
split_text = my_string.split(",")
```

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Example:

```
1
2
```

```
my_string="Hello"
trimmed = my_string.strip()
```

Copied!

Example:

```
1
2
```

```
my_string="Hello"
uppercase_text = my_string.upper()
```

Copied!

Syntax:

```
1
```

```
variable_name = value
```

Copied!

Example:

```
1
2
```

```
name="John" # assigning John to variable name
x = 5 # assigning 5 to variable x
```

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