

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. 1</div><div>1. # This is a comment</div><div>Copied!</div><div>Syntax:</div><div>1. 1</div><div>1. concatenated_string = string1 + string2</div><div>Copied!</div></div>
Concatenation	Combines (concatenates) strings.	<div><div>Example:</div><div>1. 1</div><div>1. result = "Hello" + " John"&lt;/td&gt;</div><div>Copied!</div><div>Example:</div><div>1. 1</div><div>2. 2</div><div>3. 3</div><div>4. 4</div><div>5. 5</div><div>6. 6</div><div>7. 7</div><div>8. 8</div><div>9. 9</div><div>10. 10</div></div>
Data Types	- Integer - Float - Boolean - String	<div><div>1. x=7</div><div>2. # Integer Value</div><div>3. y=12.4</div><div>4. # Float Value</div><div>5. is_valid = True</div><div>6. # Boolean Value</div><div>7. is_valid = False</div><div>8. # Boolean Value</div><div>9. F_Name = "John"</div><div>10. # String Value</div><div>Copied!</div><div>Example:</div><div>1. 1</div><div>2. 2</div></div>
Indexing	Accesses character at a specific index.	<div><div>1. my_string="Hello"</div><div>2. char = my_string[0]</div><div>Copied!</div><div>Syntax:</div><div>1. 1</div><div>1. len(string_name)</div><div>Copied!</div></div>
len()	Returns the length of a string.	<div><div>Example:</div><div>1. 1</div><div>2. 2</div><div>1. my_string="Hello"</div><div>2. length = len(my_string)</div><div>Copied!</div><div>Example:</div><div>1. 1</div><div>2. 2</div></div>
lower()	Converts string to lowercase.	<div><div>1. my_string="Hello"</div><div>2. uppercase_text = my_string.lower()</div><div>Copied!</div><div>Example:</div><div>1. 1</div><div>2. 2</div></div>
print()	Prints the message or variable inside `()``.	<div><div>1. print("Hello, world")</div><div>2. print(a+b)</div><div>Copied!</div><div>Example:</div><div>1. 1</div><div>2. 2</div><div>3. 3</div><div>4. 4</div></div>
Python Operators	<div><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</div></div>	

integer.  
- Modulo (%): Returns the remainder after division.

replace() Replaces substrings.

Slicing Extracts a portion of the string.

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.

```
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
```

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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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Example:

```
1. 1
2. 2

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

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Example:

```
1. 1
2. 2

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

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Example:

```
1. 1
2. 2

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

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Syntax:

```
1. 1

1. variable_name = value
```

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Example:

```
1. 1
2. 2

1. name="John" # assigning John to variable name
2. x = 5 # assigning 5 to variable x
```

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