# Hyperiondev

# Python-Java Cheat Sheet

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# Introduction

**WELCOME TO THE PYTHON-JAVA CHEAT SHEET!**

Programming or not, learning a new language can be daunting. Fortunately, when moving from one programming language to another, the concepts and logic themselves usually stay the same -- it's just the syntax that changes. Below is a cheat sheet that takes the Python concepts you're comfortable with and translates them to the Java equivalent. This list is not exhaustive, so we encourage you to start your own and add new concepts and translations as you come across them. You'll be a Java Developer in no time!

Get in touch
**Connect for support**

Remember that with our courses, you're not alone! You can contact your mentor to get support on any aspect of your course.

The best way to get help is to login to **www.hyperiondev.com/portal** to start a chat with your mentor. You can also schedule a call or get support via email.

Your mentor is happy to offer you support that is tailored to your individual career or education needs. Do not hesitate to ask a question or for additional support!

# PYTHON-JAVA CHEAT SHEET

| Name/ Concept | Python | Java |
|---|---|---|
| Print | `print("Hello, world!")` | `System.out.println("Hello, world!");` |
| Getting user input (string) | `user_str = input("Enter a string: ")` | `System.out.print("Enter a string: ");`<br>`Scanner s = new Scanner(System.in);`<br>`String user_str = s.nextLine();` |
| Getting user input (integer) | `user_int = int(input("Enter an int: "))` | `System.out.print("Enter an int: ");`<br>`Scanner s = new Scanner(System.in);`<br>`int user_int = s.nextInt();` |
| Getting user input (float) | `user_float = float(input("Enter a float: "))` | `System.out.print("Enter a double: ");`<br>`Scanner s = new Scanner(System.in);`<br>`double user_double = s.nextDouble();` |
| If-elif-else statement | `if some_condition:`<br>`    do_something()`<br>`elif some_other_condition:`<br>`  do_something_else()`<br>`else:`<br>`  do_nothing()` | `if (someCondition) {`<br>`    doSomething();`<br>`} else if (someOtherCondition) {`<br>`    doSomethingElse();`<br>`} else {`<br>`    doNothing();`<br>`}` |
| For loop | `for i in range(10):`<br>`    do_something()` | `for (int i = 0; i < 10; i++){`<br>`    doSomething();`<br>`}` |
| While loop | `while condition:`<br>`    do_something()` | `while (condition) {`<br>`    doSomething();`<br>`}` |
| Define a function | `def my_function(x, y):`<br>`    return x + y` | `public static int myFunction(int x, int y){`<br>`    return x + y;`<br>`}` |
| AND | `(x and y)` | `(x && y)` |
| OR | `(x or y)` | `(x || y)` |
| NOT | `(not x)` | `(!x)` |

| | | |
|---|---|---|
| Cast to integer | ```int("10")``` | ```Integer.parseInt("10");``` |
| Cast to string | ```str(10)``` | ```"" + 10;``` |
| Cast to float | ```float(10)``` | ```(float) 10;``` |
| List | ```python# Length irrelevant
string_array = []``` | ```java// Known length
String [] stringArray = new String[2];

// Unknown length
ArrayList<String> stringArrayList = new ArrayList<String>();``` |
| Dictionary (int key, string value) | ```greeting_dictionary = {}``` | ```javaHashtable<Integer, String> greetingDictionary = new Hashtable<Integer, String>();``` |
| String building | ```pythonword1 = "Hello"
word2 = "World"
greeting1 = f"{word1}, {word2}!"
greeting2 = "{}, {}!".format(word1, word2)
greeting3 = word1 + ", " + word2 + "!"``` | ```javaString word1 = "Hello";
String word2 = "world";
String greeting = word1 + ", " + word2 + "!";``` |