

Python

low learning curve

Python is a high level, interpreted & general purpose programming language.
No compile time used in many fields

which focus on

Machine
Low Level

cout << "Hello";

print ("Hello"); ~ High Level

CODE READABILITY

Who's using Python?

* Software Engineers

* Web Developers

/ * Data Analysts

* Network Engineers

* Data Scientists

* Search Engines

Kid's
=

* Mathematicians / Accountants

Why Python?

① Ease of Coding

learning curve of Python is very low

str = "Hello World"

Solve complex problems
using less lines & fewer lines
of code

Java

str.substring(0,3)

JS

str.substring(0,3)

Python

str[0:3]

② General Purpose

① Data Science

② Data Analytics

③ Machine Learning

④ Trading Programs

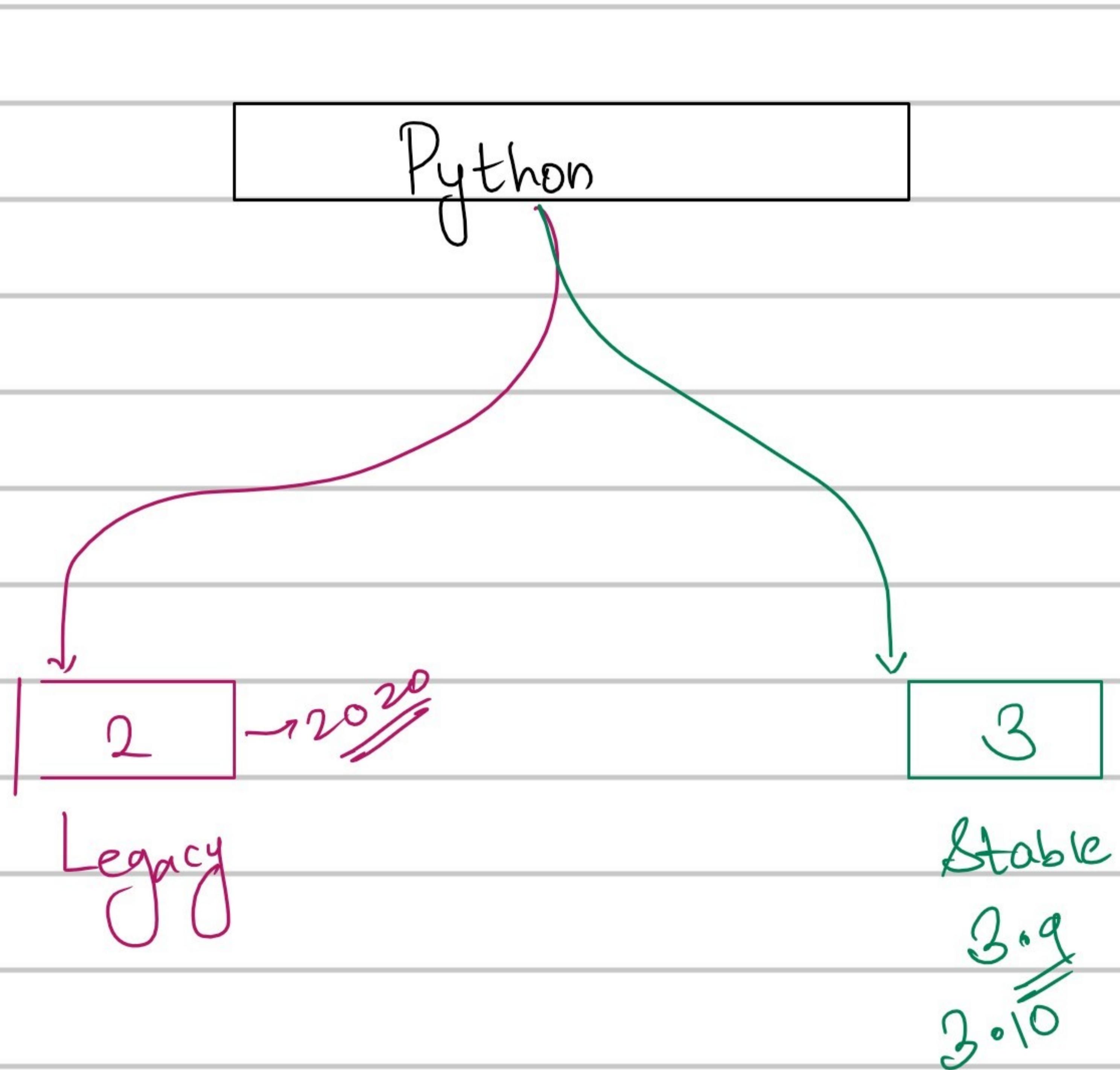
⑤ Automation

⑥ High Level

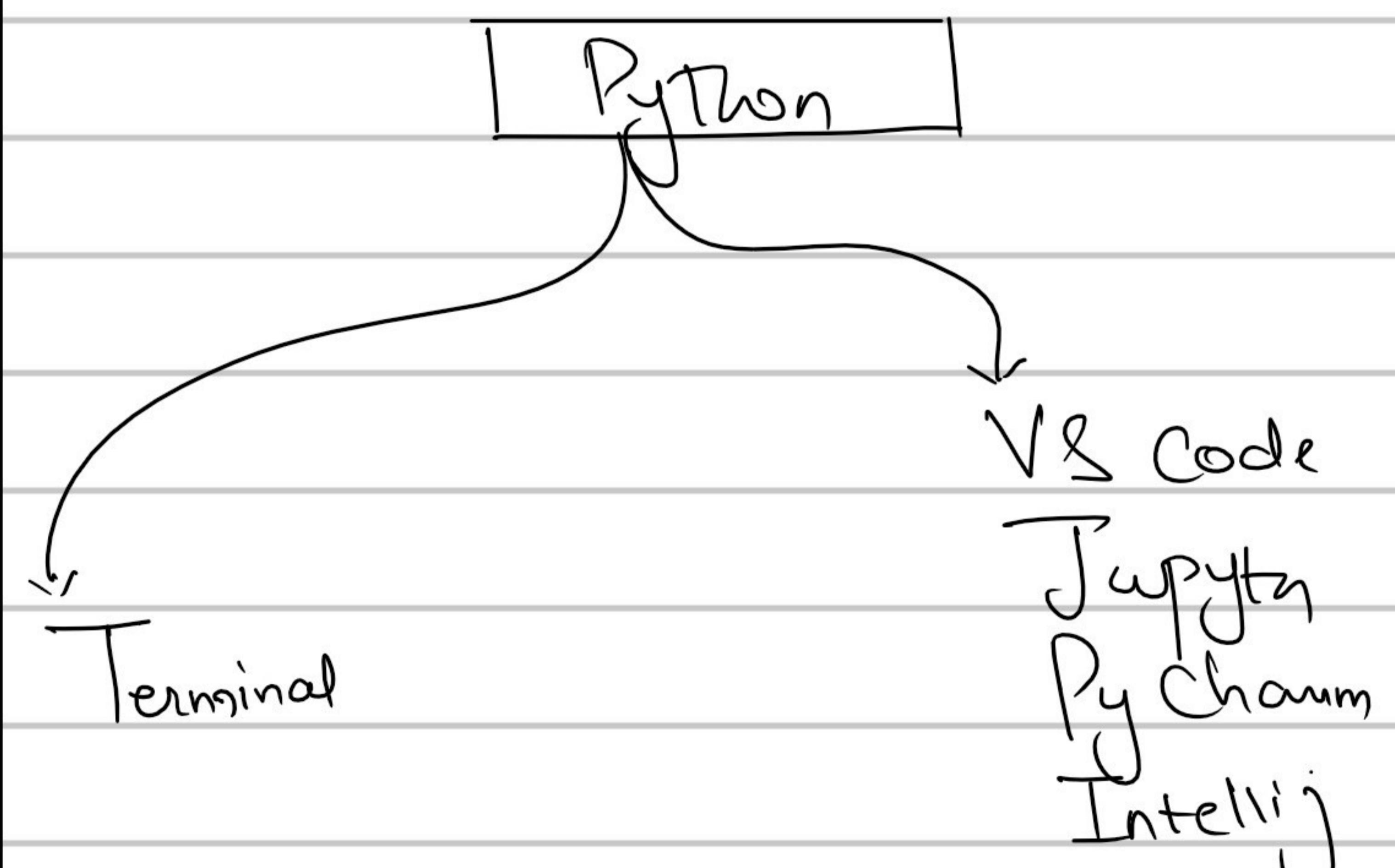
⑦ Cross Platform → no dependency on OS

⑧ Large Ecosystem → there are tons of libraries available for python

⑨ Huge Community Support



Where do we execute Python



Data Types in Python

Type
Text
Numeric
Sequence
Map
Set
Boolean
Binary

Data Types

str
int, float, complex
list, range, tuple
dict
set, frozenset
bool
byte, bytearray, memoryview

Keywords in Python

Keyword	Description
and	A logical operator
as	To create an alias
assert	For debugging
break	To break out of a loop
class	To define a class
continue	To continue to the next iteration of a loop
def	To define a function
del	To delete an object
elif ↗ else if	Used in conditional statements, same as else if
else ↗	Used in conditional statements
except ↗ catch	Used with exceptions, what to do when an exception occurs

Keywords in Python

Keywords	Description
false ↗ False	Boolean value, result of comparison operations
finally ↗	Used with exceptions, a block of code that will be executed no matter if there is an exception or not
for ↗	To create a for loop
from ↗	To import specific parts of a module
global ↗	To declare a global variable
if ↗	To make a conditional statement
import ↗	To import a module
in ↗ numbers	To check if a value is present in a list, tuple, etc.
is ↗	To test if two variables are equal
lambda ↗	To create an anonymous function

Keywords in Python

Keyword	Description
None ↗	Represents a null value
nonlocal ↗	To declare a non-local variable
not ↗	A logical operator
or ↗	A logical operator
pass ↗	A null statement, a statement that will do nothing
raise ↗	To raise an exception
return ↗	To exit a function and return a value
True ↗	Boolean value, result of comparison operations
try ↗	To make a try...except statement
while ↗	To create a while loop
with ↗	Used to simplify exception handling
yield ↗	To end a function, returns a generator

Conventions in Python

* functions | variables

tax_amount

get_location_for_car()

Snake Casing → one_two_three_fours

*

class

BankDetail

LocationManager

Pascal Casing → OneTwoThreeFour

range

0 →

0 1 2 3 4 5

[from : to]

zero

one

based

based

k i t k a t

1 →

1 2 3 4 5 6

word[1:3]

-ve →

-6 -5 -4 -3 -2 -1

0 → 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Internationalization
1 → 1 2 3 h 5 6 + 8 9 10 11 12 13 14 15 16 17 18 19 20

international 0:13

nation 5:11

intera 0:5

national 5:13

intern 0:6

ion 8:11, 17:

on 18:20, a:11, 18:

String Interpolation in Python

when we write a string without

breaking for including the
variables

a = 10

b = 20

message = "Value of a is " + a + " and value of b is " + b;

msg = f" Value of a is {a} and value of b is {b};"

Indentation

{ } X

if condition:

 statements

 → space

else:

 statements

