Get python version

In [1]:
```
import sys
print(sys.version)
```

```
3.11.4 | packaged by Anaconda, Inc. | (main, Jul  5 2023, 13:38:37) [MSC v.1916 64
bit (AMD64)]
```

> [Tip:] `sys` is a built-in module that contains many system-specific parameters and functions, including the Python version in use. Before using it, we must explictly `import` it.

In [1]:
```
!python --version
```

```
Python 3.11.4
```

print a message

In [2]:
```
print("Hello World")
```

```
Hello World
```

In [3]:
```
print("Hello"+" World")  # concatenation
```

```
Hello World
```

In [5]:
```
print("Hello","World")
```

```
Hello World
```

In [2]:
```
# python Comments
```

In [6]:
```
msg = "Hello World"
```

In [7]:
```
print(msg)
```

```
Hello World
```

In [7]:
```
type(msg)
```

Out[7]:
```
str
```

In [10]:
```
msg = 7.5
```

In [11]:
```
type(msg)
```

Out[11]:
```
float
```

In [12]:
```
msg = "Hello World"
```

In [3]:
```
print("Number:" + 5)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[3], line 1
----> 1 print("Number:" + 5)

TypeError: can only concatenate str (not "int") to str
```

In [9]:
```
print("Number:" + str(5))
```

```
Number:5
```

In [10]:
```
print("Number:", 5)
```

```
Number: 5
```

In [12]:
```
print(5)
```

```
5
```

In [5]:
```
num = 5
```

In [6]:
```
type(num)
```

Out[6]:
```
int
```

In [7]:
```
num = "5"
```

In [8]:
```
type(num)
```

Out[8]:
```
str
```

In [14]:
```
print(num)
```

```
5
```

In [15]:
```
print("Number:", num)
```

```
Number: 5
```

In [9]:
```
print(f"Number: {num}")   # f string
```

```
Number: 5
```

In [10]:
```
print("Hello")
print("World")
```

```
Hello
World
```

In [4]:
```
print("Hello", end = "")
print("World", end = "-")
print("3rd")
print("4th")
```

```
HelloWorld-3rd
4th
```

In [21]:
```
print("Hello","World")
```

```
Hello World
```

In [22]:
```
print("Hello","World", sep = "-")
```

```
Hello-World
```

In [14]:
```
a = "Hello"
print("%s World" %a)
```

```
Hello World
```

In [6]:
```
a = "Hello"
print("%s World %s"%(a,a))
```

```
Hello World Hello
```

In [7]:
```
a = "Hello"
b = "World"
print("%s %s"%(a,b))
```

```
Hello World
```

In [15]:
```
a = "Hello"
b = 123
print("%s World %d"%(a,b))
```

```
Hello World 123
```

In [16]:
```
c = str(b)
print(type(b))
print(type(c))
```

```
<class 'int'>
<class 'str'>
```

In [17]:
```
print(b)
print(c)
```

```
123
123
```

In [8]:
```
a = 4
b = 5
```

In [10]:
```
a = 4; b = 5
```

In [8]:
```
a, b = 4, 5
```

In [12]:
```
print("a : ", a)
print("b : ", b)
```

```
a :  4
b :  5
```

In [25]:
```
# Swapping
a, b = b, a
```

In [26]:
```
print("a :", a)
print("b :", b)
```

```
a : 5
b : 4
```

Operators

Operator	Meaning	Syntax
–	Negation	–a
**	Exponentiation	a ** b
*	Multiplication	a * b
/	Division	a / b
//	Quotient	a // b
%	Remainder or modulus	a % b
+	Addition	a + b
–	Subtraction	a – b

In [10]:
```
print("Sum:", a + b)
print("Diff:", a - b)
```

```
Sum: 9
Diff: -1
```

In [15]:
```
a, b = 9, 2
```

In [16]:
```
print("Div:", a / b)
print("Quot:", a // b)
print("Remainder:", a % b)
```

```
Div: 4.5
Quot: 4
Remainder: 1
```

In [17]:
```
print("Mul:", a * b)
print("Exp:", a ** b)   # 9^2
```

```
Mul: 18
Exp: 81
```

In [18]:
```
print("?" * 4)
```

```
????
```

In [19]:
```
print(" Hello World -" * 2)
```

```
 Hello World - Hello World -
```

In [20]:
```
print(" Hello World -" * 2)
print("close")
```

```
 Hello World - Hello World -
close
```

In [21]:
```
print(" Hello World -" * 2, end="")
print("\b")
```

```
Hello World - Hello World -
```

Escape Sequence

Escape Sequence	Meaning
\b	Backspace
\n	Newline
\t	Horizontal tab
\\	The \ character
\'	Single quotation mark
\"	Double quotation mark

In [17]:
```
print("Hello\nWorld")
```

```
Hello
World
```

In [39]:
```
print("Hello\tWorld")
```

```
Hello	World
```

In [38]:
```
print("Hello World")
```

```
Hello World
```

In [24]:
```
print("Hello-\bWorld")
```

```
Hello-World
```

In [25]:
```
print("Hello \\b World")
```

```
Hello \b World
```

In [43]:
```
print("Hello \" World")
```

```
Hello " World
```

In [26]:
```
print('Hello " World')
```

```
Hello " World
```

In [44]:
```
print(a + b)
```

```
12
```

In [46]:
```
a = a + 1
print(a)
```

```
10
```

augmented assignment operations

In [47]:
```
a += 1    # a = a + 1
print(a)
```

```
11
```

In [1]:
```
a = 22
```

In [2]:
```
a -= 2    # a = a - 2
print(a)
```

```
20
```

In [49]:
```
msg += " New"  # msg = msg + " New"
print(msg)
```

```
Hello World New
```