Operators :

Arithmetic Operators

Relational Operators

Assignment Operators

Membership Operators

Identity Operators

Logical Operators

Bitwize Operators

Arithmetic Operators :

+

-

/

%

//

*****

******

```
a = 10
b = 20
c = a + b
print(c, type(c))
```

```
30 <class 'int'>
```

```
a = 10.0
b = 20
c = a + b
print(c, type(c))
```

```
30.0 <class 'float'>
```

```
a = 10
b = 20.0
c = a + b
print(c, type(c))
```

```
30.0 <class 'float'>
```

```
a = 10.0
b = 20.0
c = a + b
print(c, type(c))
```

```
30.0 <class 'float'>
```

```
a = 'python'
b = 'django'
c = a + b
print(c, type(c))
```

```
pythondjango <class 'str'>
```

```
a = 'python'
b = 100
c = a + b
print(c, type(c))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-7-1a995cf537be> in <module>
      1 a = 'python'
      2 b = 100
----> 3 c = a + b
      4 print(c, type(c))

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

SEARCH STACK OVERFLOW
```

```
a = True
b = 1
c = a + b
print(c, type(c))
```

```
2 <class 'int'>
```

```
a = True
b = False
c = a + b
print(c, type(c))
```

```
1 <class 'int'>
```

```
a = True
b = 100
c = a + b
print(c, type(c))
```

```
101 <class 'int'>
```

```
a = 100
b = 50
c = a - b
print(c, type(c))
```

```
50 <class 'int'>
```

```
a = 100
b = 50.0
c = a - b
print(c, type(c))
```

```
50.0 <class 'float'>
```

```
a = 100.0
b = 50
c = a - b
print(c, type(c))
```

```
50.0 <class 'float'>
```

```
a = 'python'
b = 'pyth'
c = a - b
print(c, type(c))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-14-9b6eec6abd5e> in <module>
      1 a = 'python'
      2 b = 'pyth'
----> 3 c = a - b
      4 print(c, type(c))

TypeError: unsupported operand type(s) for -: 'str' and 'str'

SEARCH STACK OVERFLOW
```

```
a = True
b = False
c = a - b
print(c, type(c))
```

```
1 <class 'int'>
```

```
a = 10
b = 5
c = a / b
print(c, type(c))
```

```
2.0 <class 'float'>
```

```
a = 10.0
b = 5
c = a / b
print(c, type(c))
```

```
2.0 <class 'float'>
```

```
a = 10
b = 5.0
c = a / b
print(c, type(c))
```

```
2.0 <class 'float'>
```

```
a = 10.0
b = 5.0
c = a / b
print(c, type(c))
```

```
2.0 <class 'float'>
```

/ operator allways give result in float datatype only

/ operator can not work in the combination of string(s)

```
a = 10
b = 2
```

```
c = a / b
print(c, type(c))
```

```
5.0 <class 'float'>
```

```
a = 10
b = 0
c = a / b
print(c, type(c))
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
<ipython-input-21-f471b2d60bdd> in <module>
      1 a = 10
      2 b = 0
----> 3 c = a / b
      4 print(c, type(c))

ZeroDivisionError: division by zero

SEARCH STACK OVERFLOW
```

```
a = 10
b = 3
c = a % b  # modulo division operator
print(c, type(c))
```

```
1 <class 'int'>
```

```
a = 10.0
b = 3
c = a % b
print(c, type(c))
```

```
1.0 <class 'float'>
```

```
a = 10
b = 3.0
c = a % b
print(c, type(c))
```

```
1.0 <class 'float'>
```

```
a = 'python'
b = 'python'
c = a % b
print(c, type(c))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-26-c7a76173db2e> in <module>
      1 a = 'python'
      2 b = 'python'
----> 3 c = a % b
      4 print(c, type(c))

TypeError: not all arguments converted during string formatting

SEARCH STACK OVERFLOW
```

```
a = 10
b = 3
c = a // b
print(c, type(c))
```

```
3 <class 'int'>
```

```
a = 10
b = 3
c = a/b
print(c, type(c))
```

```
3.3333333333333335 <class 'float'>
```

floor // division operator allways neglect 10 // 3 ==> 3.0(point values)

```
a = 10.0
b = 3
c = a // b
print(c, type(c))
```

```
3.0 <class 'float'>
```

✓ 0s completed at 1:29 PM