2. Operators

operators are the special symbol or keyword which is used to perform operation on variable.

2.1 Arithmetical Operators

```python
In [1]:  # 1.Addition Operator
         a=10
         b=20
         a+b
```
Out[1]: 30

```python
In [2]:  #2. subtraction operator
         a-b
```
Out[2]: -10

```python
In [3]:  # 3.Multiplication Operator
         a*b
```
Out[3]: 200

```python
In [4]:  # 4.Division operator(float value)
         a=5
         b=2
         a/b    #ans will be 2.5
```
Out[4]: 2

```python
In [5]:  # 5.Floor division operator (whole number)
         a=5
         b=2
         a//b
```
Out[5]: 2

```python
In [6]:  #6.modulous operator (remainder)
         a=5
         b=2
         a%b
```
Out[6]: 1

```python
In [7]:  #7.Exponent operator
         a**b
```
Out[7]: 25

2.2 Assignment Operators

```python
In [8]:  a=6          #single assignment
         a,b=3,4     # multi assignment
         a=b=c=6
         print(a,b,c)
```
(6, 6, 6)

2.3 Short Hand Assignment Operators

```python
In [9]:  a=0
         a+=3
         a
```
Out[9]: 3

```python
In [10]:  a-=3
          a
```
Out[10]: 0

```python
In [11]:  a*=4
          a
```
Out[11]: 0

```python
In [12]:  a+=4
          a/=4
```
Out[12]: 1

```python
In [13]:  a+=7
          a%=4
          a
```
Out[13]: 0

```python
In [14]:  b=4
          b+=2
          b//=2
          b
```
Out[14]: 3

```python
In [15]:  b**=3
          b
```
Out[15]: 27

2.4 Relational Operators

```python
In [16]:  # less than
          var1=4
          var1<2
```
Out[16]: False

```python
In [17]:  # greater than
          var1>2
```
Out[17]: True

```python
In [18]:  # less than equals to
          var1<=3
```
Out[18]: False

```python
In [19]:  # greater than equals to
          var1>=4
```
Out[19]: True

```python
In [20]:  # equals to
          var2=5
          var1==var2
```
Out[20]: False

```python
In [21]:  # not equals to
          var1!=var2
```
Out[21]: True

2.5 Logical Operators

```python
In [22]:  2>3 and 3<4 # In AND operator both condition should be true, then only the result will be true.
```
Out[22]: False

```python
In [23]:  2>3 or 3<4 # In OR operator, even if one condition is true then the output will be true.
```
Out[23]: True

```python
In [24]:  a=3
          b=4
          a=not b
          a
```
Out[24]: False