

Bitwise Operators

''' Bitwise operators are always used to perform the operation on [bi]nary digits[ts] '''

x=10 #1010

y=11 #1011

''' bitwise and & will work as same as logical and

1 0 1 0 0 like False 1 like True

1 0 1 1

1 0 1 0 '''

a=x&y

print("x&y ? : ",a)

''' bitwise or | will work as same as logical or

1 0 1 0 0 like False 1 like True

1 0 1 1

1 0 1 1 '''

a=x|y

print("x|y ? : ",a)

''' bitwise xor ^

it will returns 1 if both bits are different

1 0 1 0 0 like False 1 like True

1 0 1 1

0 0 0 1 '''

```
a=x^y  
print("x^y ? : ",a)
```

```
''' Left shift operator << '''  
a=10  
r=a<<2  
print("a<<2 ? :",r) #40
```

```
''' right shift operator >> '''  
a=10  
r=a>>2  
print("a>>2 ? : ",r) #2
```