Bitwise operators used to perform the operation on binary digits [bits]

&   -> bitwise and

```
x    y    x & y
0    1    0
1    0    0
0    0    0
1    1    1
```

```
x=0b1010
y=0b1100
z=x&y
print(z)  #8
```

| -> bitwise or

```
x    y    x | y
0    1    1
1    0    1
0    0    0
1    1    1
```

```
x=0b1010
y=0b1100
z=x|y
print(z)  #14
```

^   -> bitwise x-or

```
x    y    x ^ y
0    1    1
1    0    1
0    0    0
1    1    0
```

Note: When both bits are same then it will return 0 otherwise it will return 1.

```
x=0b1010
y=0b1100
z=x^y
print(z)  #6
```

<<   ---> left shift operator
>>   ----> right shift operator

x=0b1010

0	0	0	0	1	0	1	0

x<<2

0	0	1	0	1	0	0	0
		64	32	16	8	4	2	0

32+8
= 40

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

x=0b1010

0	0	0	0	1	0	1	0

x>>2

0	0	0	0	0	0	1	0
		64	32	16	8	4	2	0

2