

## Assignment arithmetic operator

Arithmetic operator joined with assignment operator.

- suppose we have a variable

$$a=5$$

$$a=a+1$$

$$a=5+1$$


stores 6 in a

- whatever the value is stored results into it.
- It means we want to modify the value of a and increase it by 1
- The a is assigned two times the value of a is taken and increased by 1

So, this type of statements usually used for counting


$$\text{Count} = 0$$

$$\text{Count} = \text{count} + 1 \quad \text{this means}$$

$$1 = 0 + 1$$


- $\text{Count} = \text{count} + 1$ . This type of statements can be written in short like  $\text{count} += 1$
- $a = a + 1$  instead of writing this elaborated statement we can write it in short like  $a += 1$ .
- This statement was for addition
- Now, in same way if we have anything to subtract we can use subtraction.

$N=10$

$N=n-1$   
  
 $n-=1$

this means the same thing  $n-$  assigns 1

- if we have a variable  $p=10$  and we want to multiply it with a variable  $x=5$

then we may be assigning  $p=p*x$

$p*=x$

to make the statements short this operations are given

- bitwise operators can also be used with these assignment operators.
- If we have two variables  $a=10$ ,  $b=14$  and want to perform  $\&$  operation

$a=a \& b$

$a\& =b$

if we want to do something in other way

$b=a\&b$  this is the statement we can change to  $b\&=a$ .

- when want to store the result in a then
- say  $a=\&b$  this type of statement can be converted to  $a\&=b$
- if we want b to store result in b then say  $b=a \& b$  this type of statement can be converted to  $b\&=a$  assignment as well as bitwise operator can be joined together to make our statement shorter

most of the time counting statement is used

```
>>>> a=5 # assigning value 5 to variable
```

```
>>>> a=a+1# incrementing by 1
```

```
>>>> a
```

6# a becomes 6 after incrementing

```
>>>>count=0
```

```
>>>>count+1#incremneted by1
```

1 # becomes 1

```
>>>>count+=1
```

```
>>>>count
```

1

```
>>>>count+=1
```

```
>>>>count
```

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Instead of writing this complex statement we can write it in short

Like this

```
>>>>count+=1
```

```
>>>> count
```

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