21 May

Python Basic - 2

Q.1. Create two int type variables, apply addition, subtraction, division and multiplications and store the results in variables. Then print the data in the following format by calling the variables:

First variable is___& second variable is __.
Addition:___+___= ___
Subtraction:___-___=_____
Multiplication:___*___=___
Division:___/___= ___

Solution:-

```
a=6
b=5
print("First variable is ",str(a) + " & " + "Second variable is ",str(b))
print("Addition : a+b = ",a+b)
print("Multiplication : a*b = ",a*b)
print("Division : a/b = ",a/b)
```

[20] ✓ 0.0s

```
First variable is  6 & Second variable is  5
Addition : a+b =  11
Multiplication : a*b =  30
Division : a/b =  1.2
```

Q.2. What is the difference between the following operators:
(i) '/' & '//'
Solution:-

```
a=6
b=5
print(a/b) # These function will give the exact division of the two number (divison)
print(a//b) # These function will give the integral division of the two number (FLoor division)
```

[22] ✓ 0.0s

```
1.2
1
```

(ii) '**' & '^

** -> Exponential operator

```
a=5
print(a**2)
```

[26] ✓ 0.0s

```
25
```

^ -> XOR operator

```
a=10 # Binary-> 1010
b=4 #Binary-> 0100
print(a^b)
```

[27] ✓ 0.0s

```
14
```

Q.3. List the logical operators.

Solution:-

```
# Logical Operator
# AND-> Return true if both condition are true otherwise false
# OR -> Return true if any one of the condition is true and both are false then return false
# NOT -> Return true if result is false and return false if result is true
print(10>5 and 20>6)
print(5>4 or 90>100)
print(not(5>4 or 90>100))
```

[34] ✓ 0.0s

```
True
True
False
```

Q.4. Explain right shift operator and left shift operator with examples.

Solution:- Right Shift Operator:- Shifts the bits of the number to the right and fills 0 on voids left(fills 1 in the case of a negative number) as a result.

```
# Right Shift operator in python
a=10
# Shift the bit towards the right
print(a>>1)
```

[35] ✓ 0.0s

```
5
```

+ Code + Markdown

Left Shift Operator:- Shifts the bits of the number to the left and fills 0 on voids right as a result.

```
# Left Shift operator in python
a=5
# Shift the bit towards the left
print(a<<1)
```

[36] ✓ 0.0s

```
10
```

Q.5. Create a list containing int type data of length 15. Then write a code to check if 10 is present in the list or not.

Solution:-

In 1st screenshot 15 is in the list

In 2nd screenshot 15 is not in the list

```
list=[2,1,14,15,10,11,12,3,4,5,6,7,9,13,8] # Here 15 is the list so it is priting the Yes as the output
flag=0;
for i in list :
    if (i==15) :
        flag=1
if (flag==1) :
    print("Yes")
else :
    print("No")
```

[51] ✓ 0.0s

```
Yes
```

```
list=[2,1,14,16,10,11,12,3,4,5,6,7,9,13,8] # Here 16 is not in the list so it is priting the No as the output
flag=0;
for i in list :
    if (i==15) :
        flag=1
if (flag==1) :
    print("Yes")
else :
    print("No")
```

[56] ✓ 0.0s

```
No
```