

4-04-25

September 04

```
stu_id = int(input("Enter your ID: "))
stu_name = input("Enter your name: ")
sub1_marks = float(input("Enter your sub1 marks: "))
sub2_marks = float(input("Enter your sub2 marks: "))
sub3_marks = float(input("Enter your sub3 marks: "))
Total_marks = sub1_marks + sub2_marks + sub3_marks
percent = (Total_marks/300)*100

print("Student ID = ",stu_id,"\nStudent Name = ",stu_name,"\nSub1 Marks = ",sub1_marks,"\nSub2 Marks = ",sub2_marks,"\nSub3 Marks = ",sub3_marks,"\nTotal Marks = ",Total_marks,"\nPercentage = ",percent,"%")
```

print(".format method")

```
print("Student ID = {}\nStudent Name = {}\nSub1 Marks = {}\nSub2 Marks = {}\nSub3 Marks = {}\nTotal Marks = {}\nPercentage = {}%".format(stu_id,stu_name,sub1_marks,sub2_marks,sub3_marks,Total_marks,percent))
```

print("F string print method")

```
print(f"Student ID={stu_id}\nStudent Name={stu_name}\nSub1 Marks={sub1_marks}\nSub2 Marks={sub2_marks}\nSub3 Marks={sub3_marks}\nTotal Marks={Total_marks}\nPercentage={percent}%")
```

OUTPUT:

Enter your ID: 123

Enter your name: Laxami

Enter your sub1 marks: 80

Enter your sub2 marks: 90

Enter your sub3 marks: 100

Student ID = 123

Student Name = Laxami

Sub1 Marks = 80.0

Sub2 Marks = 90.0

Sub3 Marks = 100.0

Total Marks = 270.0

Percentage = 90.0 %

.format method

Student ID =123

Student Name = Laxami

Sub1 Marks = 80.0

Sub2 Marks = 90.0

Sub3 Marks = 100.0

Total Marks = 270.0

Percentage = 90.0%

F string print method

Student ID =123

Student Name =Laxami

Sub1 Marks=80.0

Sub2 Marks=90.0

Sub3 Marks =100.0

Total Marks=270.0

Percentage=90.0%

Operators:

- They are used for assigning values to variables and performing calculations.
- It is a special symbol to perform certain operations b/w operands

ex: a = 3

= operator

a,3 operands

z = x + y

+,= operators

x,y,z operands

Types of operators:

1. Arithmetic Operators: + - * % / // **
2. Comparison or Relational Operators: > < = <= >= == !=
3. Logical Operators: and or not
4. Assignment Operators: = += -= *= /= //= %= **=
5. Bitwise Operators: & | ~ >> << ^
6. Identity Operators: is is not
7. Membership Operators: in not in

1. Take two inputs from the user and perform all arithmetic operation and print all the outputs.

```
num1 = float(input("Enter a number: "))
```

```
num2 = float(input("Enter one more number: "))
```

```
Add = num1 + num2
```

```
Sub = num1 - num2
```

```
Mul = num1 * num2
```

```
Div = num1 / num2
```

```
Mod = num1 % num2
```

```
Floor = num1 // num2
```

```
exp = num1 ** num2
```

```
print(f'Addition = {Add}\nSubtraction = {Sub}\nMultiplication =  
{Mul}\nDivision = {Div}\nModulus = {Mod}\nFloor Division =  
{Floor}\nExponentiation = {exp}')
```

```
Enter a number: 3
```

```
Enter one more number: 5
```

```
Addition = 8.0
```

```
Subtraction = -2.0
```

```
Multiplication = 15.0
```

```
Division = 0.6
```

```
Modulus = 3.0
```

```
Floor Division = 0.0
```

Exponentiation = 243.0

Another method

```
num1 = float(input("Enter a number: "))
```

```
num2 = float(input("Enter one more number: "))
```

```
print(f'Addition of {num1} and {num2} is {num1+num2}\nSubtraction of {num1} and {num2} is {num1-num2}\nMultiplication of {num1} and {num2} is {num1*num2}\nDivision of {num1} and {num2} is {num1/num2}\nModulus of {num1} and {num2} is {num1%num2}\nFloor Division of {num1} and {num2} is {num1//num2}\nExponentiation of {num1} and {num2} is {num1**num2}')
```

Enter a number: 8

Enter one more number: 2

Addition of 8.0 and 2.0 is 10.0

Subtraction of 8.0 and 2.0 is 6.0

Multiplication of 8.0 and 2.0 is 16.0

Division of 8.0 and 2.0 is 4.0

Modulus of 8.0 and 2.0 is 0.0

Floor Division of 8.0 and 2.0 is 4.0

Exponentiation of 8.0 and 2.0 is 64.0

x = 15

y = 40

```
print(x<y)
```

```
print(x>y)
```

```
print(x!=y)
```

`print(x==y)`

`print(x<=y)`

`print(x>=y)`

True

False

True

False

True

False

and: all conditions should be true

or: at least one condition should be true

not: vice versa

XOR: all conditions should be the same (all conditions should pass, or all conditions should fail)

XNOR: all conditions should not be the same (all conditions should not pass, or all conditions should not fail)

a b and or XOR XNOR

F F F F T F

F T F T F T

T F F T F T

T T T T T F

a not

T F

F T

```
a = 7
```

```
b = 8
```

```
print(a>10 and b<10)
```

```
print(a!=10 and b<10)
```

```
print(a<10 and b<10)
```

```
False
```

```
True
```

```
True
```

```
print(a>10 or b<10)
```

```
print(a==10 or b>10)
```

```
print(a<10 or b<10)
```

```
True
```

```
False
```

```
True
```

```
print(not(True))
```

```
print(not(False))
```

```
False
```

```
True
```