

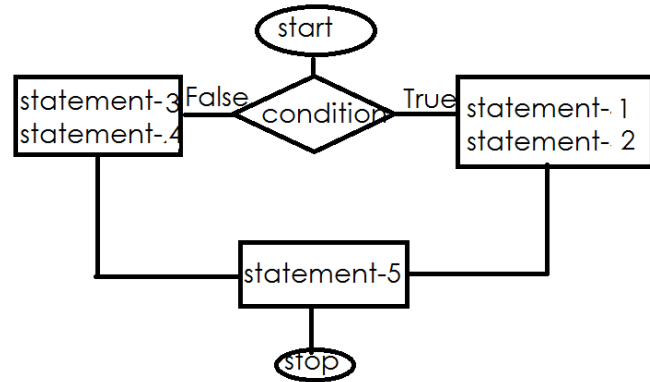
If..else statement

This syntax is having two blocks.

Syntax:

```
if <condition>:  
    statement-1  
    statement-2  
else:  
    statement-3  
    statement-4
```

if condition is True, PVM
executes statement-1,statement-
2
if condition is False, PVM
executes Statement-
3,Statement-4



Example:

```
# write a program to find input amount is  
# multiples of 100,200 or 500
```

```
amt=int(input("Amount :"))  
if amt%100==0 or amt%200==0 or amt%500==0:  
    print(amt,"is multiples of 100 or 200 or 500")  
else:  
    print(amt,"is not multiple of 100 or 200 or 500")
```

Output:

```
Amount :2050  
2050 is not multiple of 100 or 200 or 500
```

```
Amount :2200  
2200 is multiples of 100 or 200 or 500
```

Example:

```
# Write a program to find input number is even or odd
```

```
num=int(input("Enter any number"))
if num%2==0:
    print(num,"is Even")
else:
    print(num,"is Odd")
```

Output:

Enter any number5
5 is Odd

Enter any number4
4 is Even

Format string

Format string is used to format output. It is a special string where values are inserted during runtime.

1. Old style formatting
2. New style formatting
3. f-string

old style formatting

Old style string formatting is C style formatting.

“characters format”%(value,value,value,...)

Format

%d → Decimal Integer
%o → Octal Integer
%x → Hexadecimal Integer
%s → String
%f → float in fixed notation
%e → float in Exponent notation

Example

a=10
b=20
c=30
d=40

```
print("%d %d %d %d"%(a,b,c,d))
print("a=%d,b=%d,c=%d,e=%d,sum=%d"%(a,b,c,d,a+b+c+d))
print("a=%d,b=%o,c=%x"%(a,b,c))
print("sum of %d and %d is %d"%(a,b,a+b))
print("sum of",a,"and",b,"is",a+b)
f1=1.5
print("%f %e"%(f1,f1))
```

Output:

```
10 20 30 40
a=10,b=20,c=30,e=40,sum=100
a=10,b=24,c=1e
sum of 10 and 20 is 30
sum of 10 and 20 is 30
1.500000 1.500000e+00
```

% is called string interpolation operator

Example

write a program to find max of two numbers

```
num1=int(input("Enter First Number"))
num2=int(input("Enter Second Number"))
if num1>num2:
    print("Max is %d"%(num1))
else:
    print("Max is %d"%(num2))
```

Output:

```
Enter First Number10
Enter Second Number20
Max is 20
```

```
Enter First Number100
Enter Second Number20
Max is 100
```

New style string formatting

In new style string formatting, string uses format function.

String contains replacement fields and each replacement field is represented in {}.

d → Decimal Integer
o → Octal integer
x → Hexadecimal integer
b → Binary Integer
f → float in fixed
e → float in exponent
s → String

Example:

```
a=10
b=20
print("Value of a is {}".format(a))
print("Value of b is {}".format(b))
print("Sum of {} and {} is {}".format(a,b,a+b))
print("{} {}".format(a,b))
print("value of a in octal format {:o}".format(a))
print("value of a in binary format {:b}".format(a))
print("value of a in hexa format {:x}".format(a))
print("value of a in decimal {:d}".format(a))
```

Output:

```
Value of a is 10
Value of b is 20
Sum of 10 and 20 is 30
10,20
value of a in octal format 12
value of a in binary format 1010
value of a in hexa format a
value of a in decimal 10
```

Example:

```
# write a program to input name and 2 subject marks
# and print result (PASS/FAIL)
```

```
name=input("Enter Name")
sub1=int(input("Enter Subject1 "))
```

```
sub2=int(input("Enter Subject2 "))
if sub1<40 or sub2<40:
    print("{} is Fail".format(name))
else:
    print("{} is Pass".format(name))
```

Output:

```
Enter Namesuresh
Enter Subject1 30
Enter Subject2 60
suresh is Fail
```

```
Enter Nameabc
Enter Subject1 40
Enter Subject2 50
abc is Pass
```

Example

```
a=1.5
print("{}".format(a))
print("{:f}".format(a))
print("{:.2f}".format(a))
print("{:.30f}".format(a))
```

Output:

```
1.5
1.500000
1.50
1.5000000000000000000000000000000000
```

f-string

f-string or format string, this is introduced in python 3.8 version.

f"format"

HOMEWORK

1. Write a program to find input number is divisible with 7 or not

2. Write a program to find input year is leap or not
3. Write a program to find input character is uppercase or lowercase
4. Develop login application, input username and password