08/09/2025

Identity Operators:

is is not

ex: a=9

b=9

a is b

o/p: True

ex: a is not b

o/p: False

Membership Operators:

in not in

i am a member of your family-False in

i am not a member of your family-True not in

you are a member of your family-True in

you are not a member of your family-False not in

ex: pet= ['dog', 'cat', 'cow', 'rabbit']

'cat' in pet

o/p: True

ex: 'lion' in pet

o/p: False

Conditional statements:

They help make decisions in a program by evaluating conditions and running different blocks of code depending on whether the condition is True or False.

(or)

They allow us to make decisions in code by checking conditions (expressions that result in True or False) and executing different blocks of code based on the result.

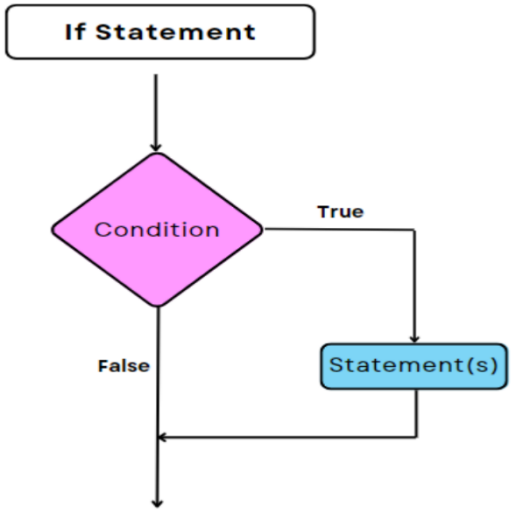
Types of conditional statements:

1) if statement
2) if-else statement
3) if-elif-else statement

4) nested if statement

1)if statement

Execute the block of code only when the condition is True.



syntax: if(condition):

statement

ex: x=10

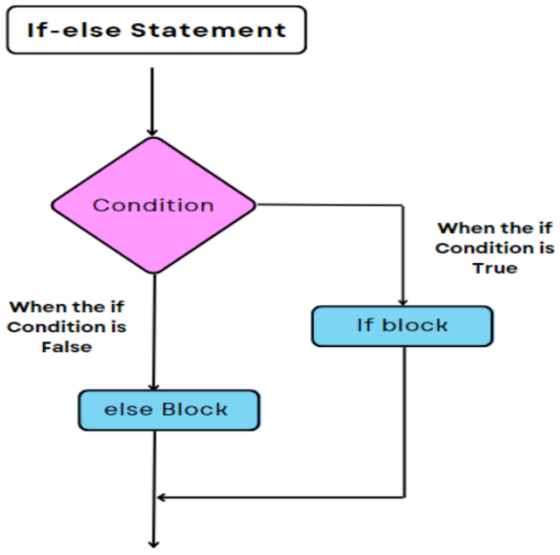
if(x>5):

print("x is greater than 5")

o/p: x is greater than 5

2)if-else statement

It provides two paths one if the condition is True, and another if it is False.



syntax: if(condition):

statements

else:

statements

ex: x=2

if(x>5):

print("x is greater than 5")

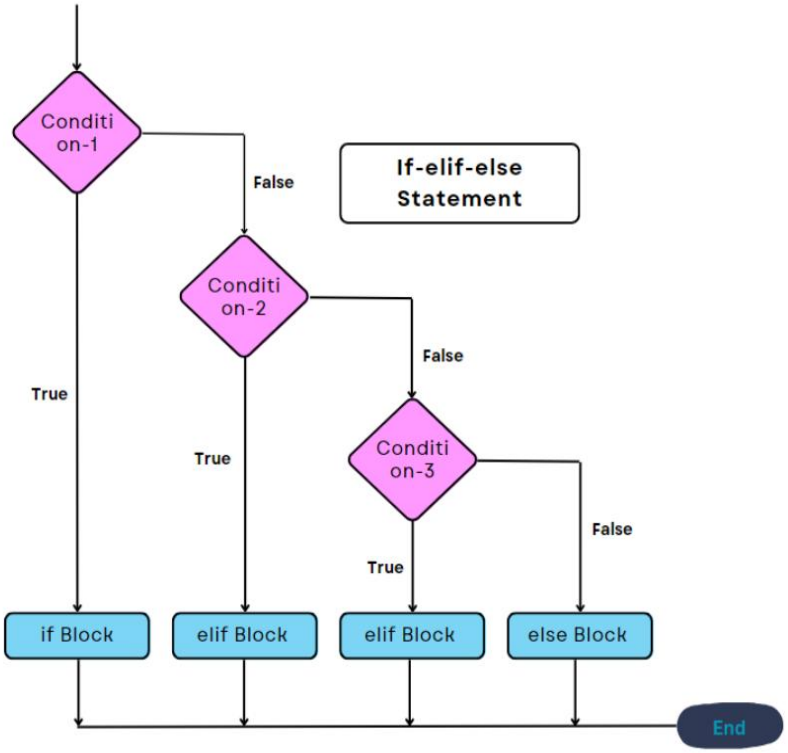
else:

print("x is not greater than 5")

o/p: x is not greater than 5

3) if-elif-else statement

It is used to check multiple conditions one by one. The program executes the block of the first condition that evaluates to True and skips the rest.



syntax: if(condition1):

        statements

    elif(condition2):

        statements

    elif(condition3):

        statements

    else:

        statements

ex: **Write a program to check the given num is positive,negative,zero**

```
num=float(input("enter the number"))
if(num>0):
   print("number is positive")
elif(num<0):
   print("number is negative")
else:
   print("number is zero")
```

o/p: enter the number 3

number is positive