

Conditional Statements


In Python, conditional statements are used to execute different code blocks based on certain conditions. The two main types of conditional statements in Python are if statements and if-else statements.

Here are some examples of how conditional statements are used in Python:

1. If statement:

The if statement is used to execute a code block only if a certain condition is true. The syntax is:


sql

 Copy code

```
if condition:
    # code block to execute if condition is true
```

For example, the following code checks if a number is positive or negative:

python


 Copy code

```
num = -5

if num >= 0:
    print("The number is positive")
```

Output:

lua


 Copy code

(No output)

2. If-else statement:

The if-else statement is used to execute one code block if a condition is true, and a different code block if the condition is false. The syntax is:


sql

 Copy code

```
if condition:
    # code block to execute if condition is true
else:
    # code block to execute if condition is false
```

For example, the following code checks if a number is positive or negative and prints a message accordingly:

python


 Copy code

```
num = -5

if num >= 0:
    print("The number is positive")
else:
    print("The number is negative")
```

Output:

csharp


 Copy code

```
The number is negative
```

3. If-elif-else statement:

The if-elif-else statement is used to check multiple conditions and execute different code blocks accordingly. The syntax is:


vbnet

 Copy code

```
if condition1:
    # code block to execute if condition1 is true
elif condition2:
    # code block to execute if condition1 is false and condition2 is true
else:
    # code block to execute if condition1 and condition2 are false
```

For example, the following code checks if a number is positive, negative or zero and prints a message accordingly:

python


 Copy code

```
num = -5

if num > 0:
    print("The number is positive")
elif num == 0:
    print("The number is zero")
else:
    print("The number is negative")
```

Output:

csharp

 Copy code

The number is negative

 Regenerate response