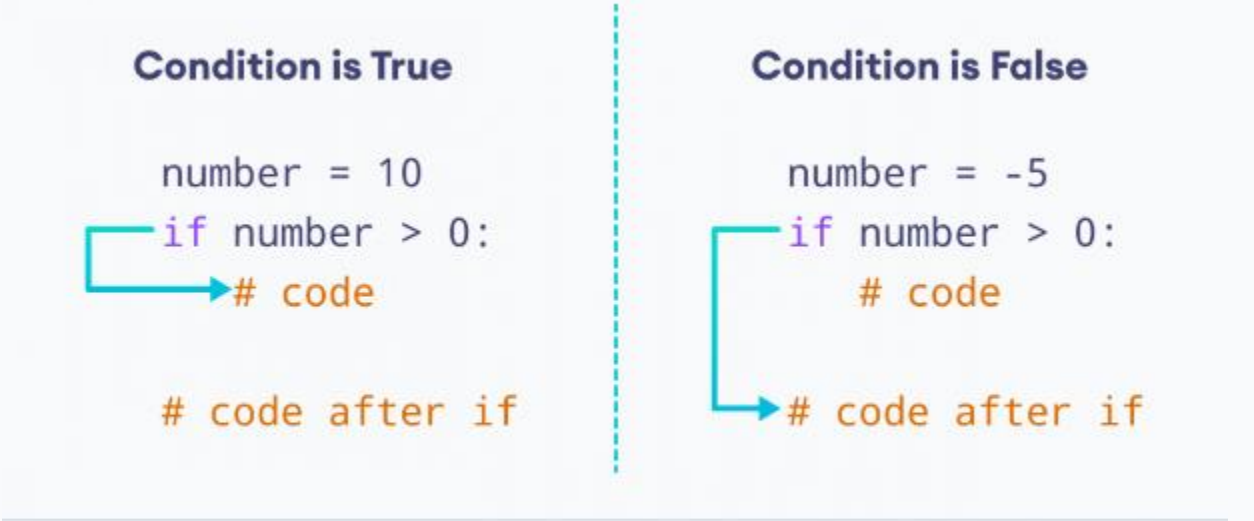
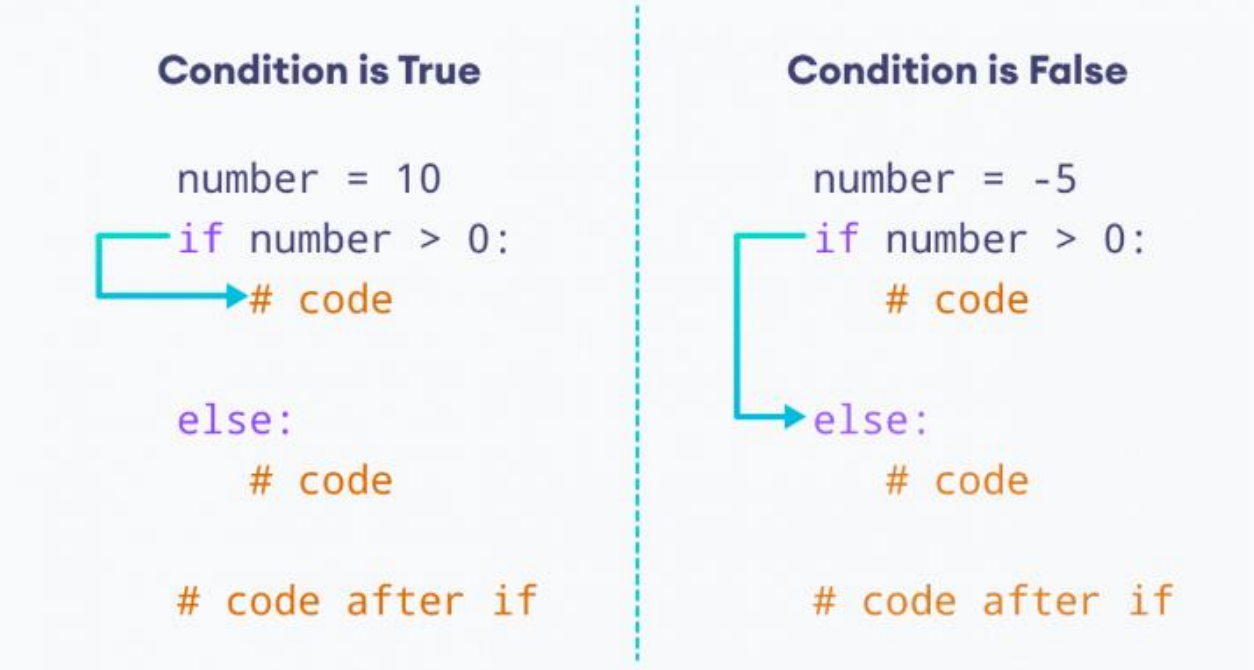
1. Python if statement



Working of if Statement

2. Python if – else statement



Working of if...else Statement

3. Python if...elif...else Statement

The if...else statement is used to execute a block of code among two alternatives.

However, if we need to make a choice between more than two alternatives, then we use the `if...elif...else` statement.

The syntax of the `if...elif...else` statement is:

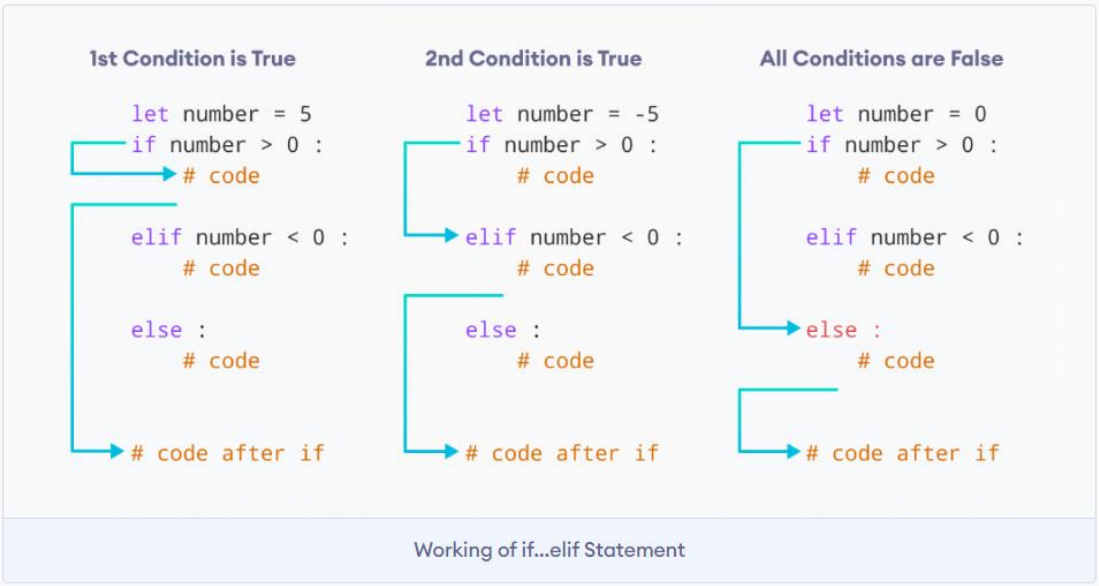
```
if condition1:
    # code block 1

elif condition2:
    # code block 2

else:
    # code block 3
```

Here,

1. If **condition1** evaluates to `true`, **code block 1** is executed.
2. If **condition1** evaluates to `false`, then **condition2** is evaluated.
   a. If **condition2** is `true`, **code block 2** is executed.
   b. If **condition2** is `false`, **code block 3** is executed.



Working of if...elif Statement

EXAMPLE:

```
number = 0

if number > 0:
    print("Positive number")

elif number == 0:
    print('Zero')
else:
    print('Negative number')

print('This statement is always executed')
```

4. Python Nested If statements

- We can also use an if statement inside of an if statement. This is known as a nested if statement.
- We can add else and elif statements to the inner if statement as required.
- We can also insert inner if statement inside the outer else or elif statements (if they exist)
- We can nest multiple layers of if statements.

EXAMPLE:

```
number = 5

# outer if statement
if (number >= 0):
    # inner if statement
    if number == 0:
      print('Number is 0')

    # inner else statement
    else:
        print('Number is positive')

# outer else statement
else:
    print('Number is negative')

# Output: Number is positive
```