

Python Tutorial

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Python is a programming language.

Python can be used on a server to create web applications.

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Learning by Examples

With our "Try it Yourself" editor, you can edit the code and view the result.

Python If ... Else

Python Conditions and If statements

Python supports the usual **logical conditions** from mathematics:

- Equals: `a == b`
- Not Equals: `a != b`
- Less than: `a < b`
- Less than or equal to: `a <= b`
- Greater than: `a > b`
- Greater than or equal to: `a >= b`

These conditions can be used in several ways, most commonly in "if statements" and loops.

An "if statement" is written by using the `if` keyword.

Example

If statement:

```
a = 33
b = 200
if b > a:
    print("b is greater than a")
```

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Indentation

Python relies on **indentation** (whitespace at the beginning of a line) **to define scope in the code**. Other programming languages often use curly-brackets for this purpose.

Example

If statement, without indentation (will raise an error):

```
a = 33
b = 200
```

```
if b > a:  
print("b is greater than a") # you will get an error  
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```

Else and Elif

The `else` keyword catches anything which isn't caught by the preceding conditions.

Example

```
a = 200  
b = 33  
if b > a:  
    print("b is greater than a")  
elif a == b:  
    print("a and b are equal")  
else:  
    print("a is greater than b")
```

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In this example `a` is greater than `b`, so the first condition is not true, also the `elif` condition is not true, so we go to the `else` condition and print to screen that "a is greater than b".

You can also have an `else` without the `elif`:

Example

```
a = 200  
b = 33  
if b > a:  
    print("b is greater than a")  
else:  
    print("b is not greater than a")
```

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And

The `and` keyword is a logical operator, and is used to combine conditional statements:

Example

Test if `a` is greater than `b`, AND if `c` is greater than `a`:

```
a = 200
b = 33
c = 500
if a > b and c > a:
    print("Both conditions are True")
```

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Or

The `or` keyword is a logical operator, and is used to combine conditional statements:

Example

Test if `a` is greater than `b`, OR if `a` is greater than `c`:

```
a = 200
b = 33
c = 500
if a > b or a > c:
    print("At least one of the conditions is True")
```

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