



# Python if...else



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# Agenda



1. **What are if...else statement in Python?**
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  - b) **Python if Statement Flowchart**
  - c) **Example: Python if Statement**
2. **Python if...else Statement**
  - a) **Syntax of if...else**
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3. **Python if...elif...else Statement**
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4. **Python Nested if statements**

# What are if...else statement in Python?

Decision making is required when we want to execute a code only if a certain condition is satisfied.

## Python if Statement Syntax

**if test expression:  
statement(s)**

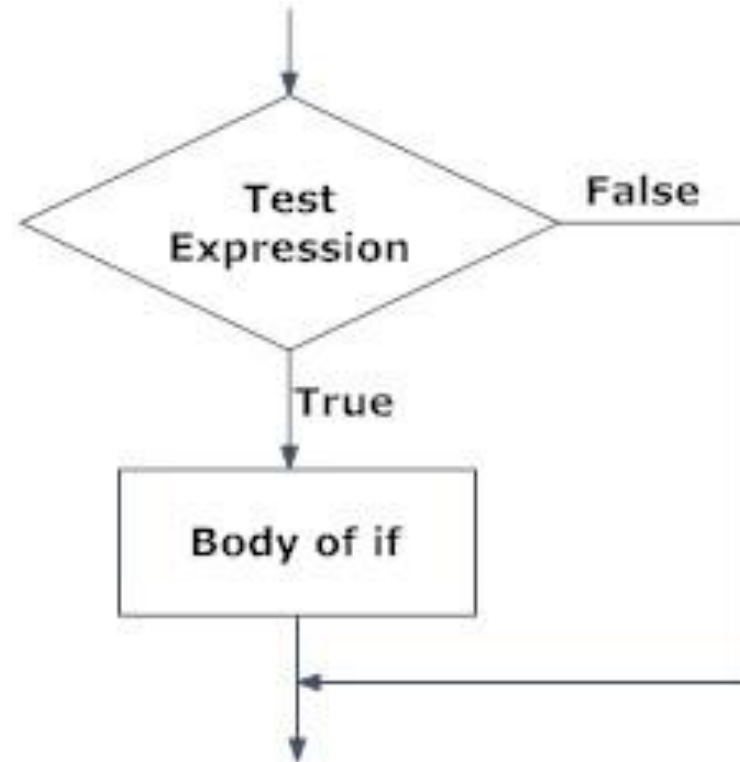


Fig: Operation of if statement

## Python if Statement Flowchart

# If the number is positive, we print an  
#appropriate message

```
num = 3
if num > 0:
    print(num, "is a positive number.")
print("This is always printed.")
```

```
num = -1
if num > 0:
    print(num, "is a positive number.")
print("This is also always printed.")
```

# Python if...else Statement

## Syntax of if...else

**if test expression:**  
    **Body of if**  
**else:**  
    **Body of else**

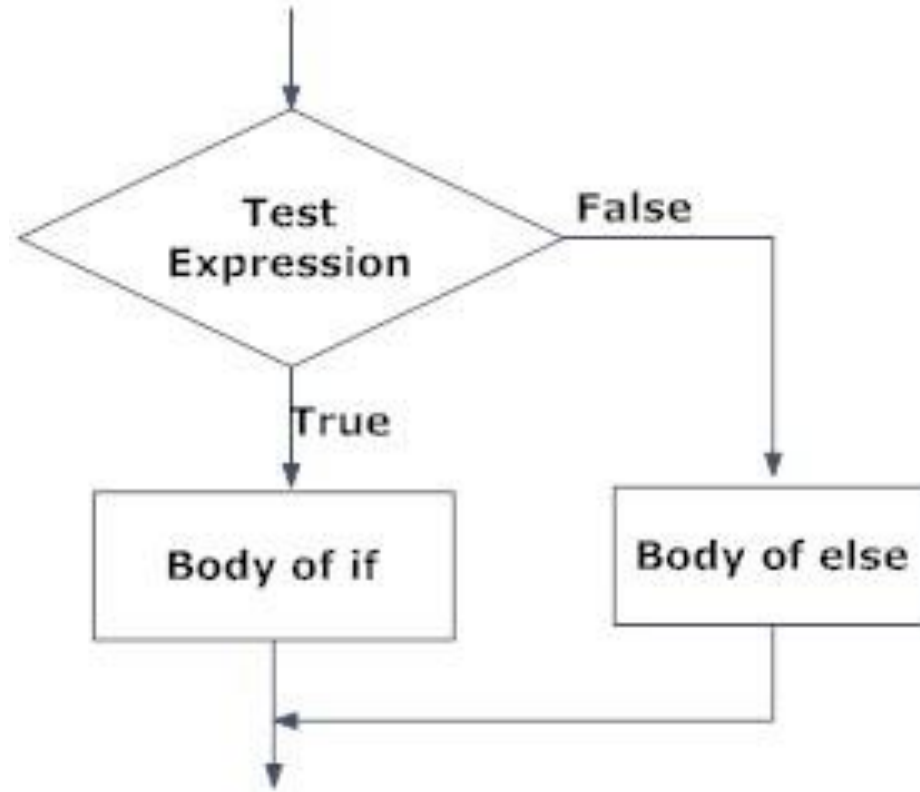


Fig: Operation of if...else statement

## Flowchart

## Example

```
num = 3
```

```
# Try these two variations as well.
```

```
# num = -5
```

```
# num = 0
```

```
if num >= 0:
```

```
    print("Positive or Zero")
```

```
else:
```

```
    print("Negative number")
```

# Python if...elif...else Statement

## Syntax of if...elif...else

**if test expression:**  
    **Body of if**  
**elif test expression:**  
    **Body of elif**  
**else:**  
    **Body of else**

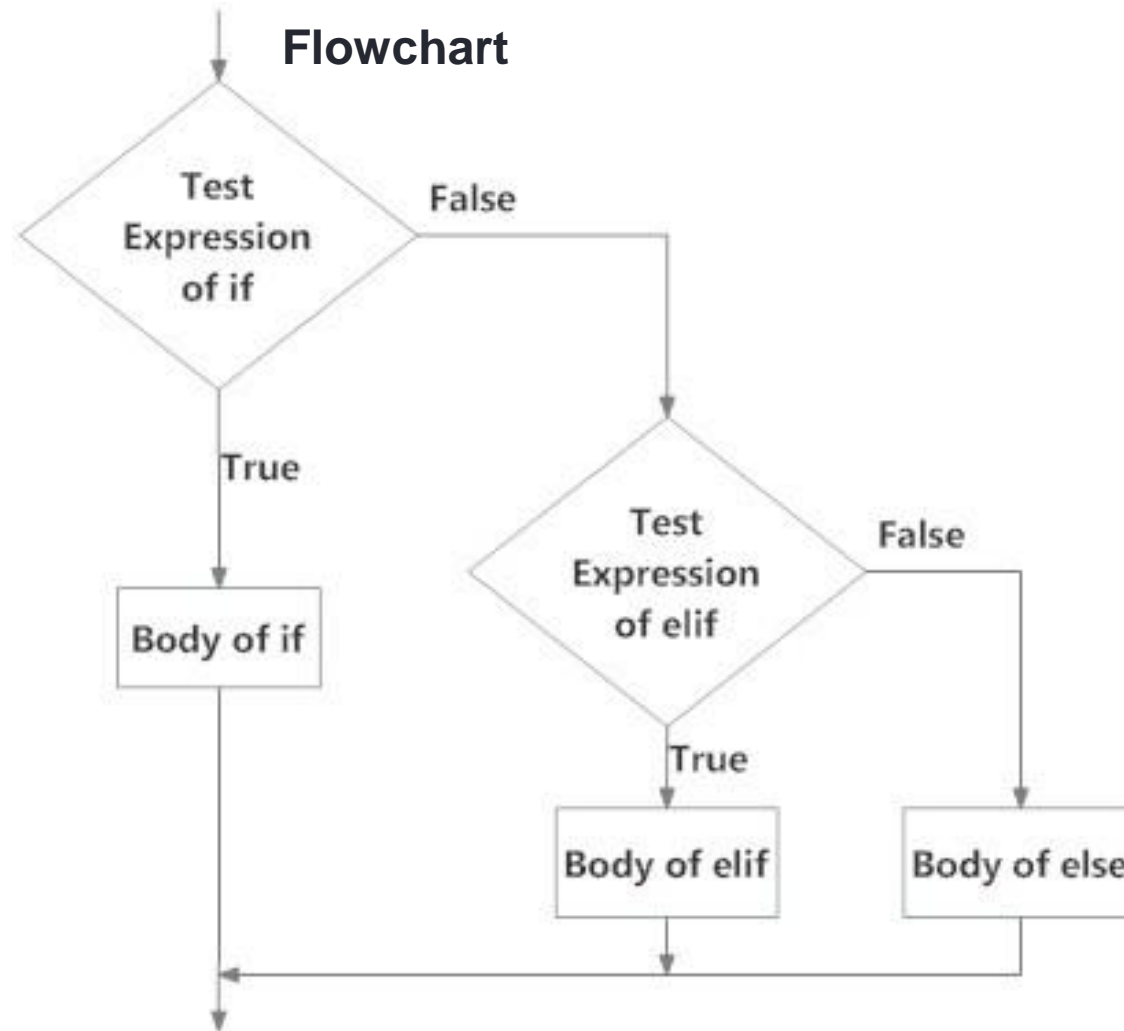


Fig: Operation of if...elif...else statement

```
num = 3.4
```

```
# Try these two variations as well:  
# num = 0  
# num = -4.5
```

```
if num > 0:  
    print("Positive number")  
elif num == 0:  
    print("Zero")  
else:  
    print("Negative number")
```

# Python Nested if statements

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**We can have a if...elif...else statement inside another if...elif...else statement. This is called nesting in computer programming.**

```
num = float(input("Enter a number: "))
if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative number")
```

# Check out these

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- 1. Find the Factorial of a Number**
- 2. Check Prime Number**
- 3. Check Armstrong Number**
- 4. Check if a Number is Odd or Even**