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Conditional statements in Python

Conditional statements control the flow of your program based on specific conditions. Python offers three main types for this purpose:

1. **if Statements:**

Syntax:

```
if condition:
  # Code to execute if condition is True
```

Executes the code block within the if statement only if the specified condition evaluates to True.
Use indentation to define the code block, not curly braces like some other languages.

Example:

```
x = 10
if x > 5:
  print("x is greater than 5")
```

This will print "x is greater than 5" because the condition x > 5 is True.

2. **if...else Statements:**

Syntax:

```
if condition:
  # Code to execute if condition is True
else:
  # Code to execute if condition is False
```

Similar to if statements, but also includes an else block. The else block executes only if the condition is False.

Example:

```
y = 2
if y > 5:
  print("y is greater than 5")
else:
  print("y is not greater than 5")
```

This will print "y is not greater than 5" because the condition y > 5 is False.

3. Python if elif else Statement:

Syntax:

```
if condition1:
  # Code to execute if condition1 is True
elif condition2:
  # Code to execute if condition1 is False and condition2 is True
else:
  # Code to execute if all conditions are False
```

Combines multiple if statements into a single structure. Each elif block checks a new condition after the previous ones are False. The else block executes only if all conditions are False.

Example:

```
grade = 85
if grade > 90:
  print("Grade: A")
elif grade > 75:
  print("Grade: B")
elif grade > 65:
  print("Grade: C")
else:
  print("Grade: D")
```

This will print "Grade: B" because the first condition is False (85 is not greater than 90), but the second condition (grade > 75) is True.