**Introduction to conditionalstatements: if, else, elif.**

Conditional statements, specifically if, else, and elif (short for "else if"), are fundamental programming constructs that allow code execution to be controlled based on whether certain conditions are met. They enable programs to make decisions and respond differently to various inputs or situations.

**if statements:**

* The if statement is the basic building block for conditional execution.
* It evaluates a condition, and if the condition is True, the code block within the if statement is executed.
* If the condition is False, the code block is skipped.

x = 10  
if x > 5:  
 print("x is greater than 5") # This will execute

**else statements:**

* The else statement provides an alternative code block to execute when the if condition is False.
* It is always paired with an if statement.

x = 3  
if x > 5:  
 print("x is greater than 5")  
else:  
 print("x is not greater than 5") # This will execute

**elif statements:**

* The elif statement allows for checking multiple conditions in sequence.
* It acts like an "else if" and is only checked if the preceding if or elif conditions were False.
* You can have multiple elif statements to check various conditions.

x = 7  
if x > 10:  
 print("x is greater than 10")  
elif x > 5:  
 print("x is greater than 5") *# This will execute*  
elif x > 0:  
 print("x is greater than 0")  
else:  
 print("x is not greater than 0")

**Key points:**

* Proper indentation is crucial in Python to define the code blocks associated with if, elif, and else. [Python documentation says](https://www.geeksforgeeks.org/python/conditional-statements-in-python/)
* if and elif conditions are evaluated in the order they are written, and the first True condition's block is executed, after which the rest are skipped.
* else provides a default block to execute when no other condition is met.
* Nested if statements (putting if statements inside other if or elif blocks) are possible, but can make code harder to read if overused.