Conditional Statement

- **if statements**
  - The if statement is used to **test a condition**. If the condition is true, the code inside the if statement is executed.

    Syntax:
    if condition:
      # code to execute if the condition is true

- **if...else statements**
  - The if...else statement extends the if statement by **providing an alternative code** to execute when the condition is false.

    Syntax:
    if condition:
      # code to execute if the condition is true
    else:
      # code to execute if the condition is false

- **Python if elif else statement how does they work**
  - The if...elif...else statement **allows you to test multiple conditions in sequence**. The first condition that is true will execute its corresponding code, and the rest of the statements will be skipped.

    Syntax:
    if condition1:
      # code to execute if condition1 is true
    elif condition2:
      # code to execute if condition is true
    else:
      # code to execute if none of the conditions are true

If they work together here is the example:

```
# Example using if, elif, and else statements
x = 10

if x > 0:
    print("x is positive")
elif x == 0:
    print("x is zero")
else:
    print("x is negative")
```