**If Else Conditional Statements**

-- There comes situations in real life when we need to make some decisions and based on these decisions, we decide what should we do next.

-- Similar situations arise in programming also where we need to make some decisions and based on these decisions, we will execute the next block of code.

-- Decision-making statements in programming languages decide the direction (Control Flow) of the flow of program execution.

Types of Control Flow in Python

1. The if statement

2. The if-else statement

3. The nested if-statement

4. The if-elif-else ladder

IF Statement

-- The if statement is the most simple decision-making statement.

-- It is used to decide whether a certain statement or block of statements will be executed or not.

-- Syntax:

*if condition:*

*# Statements to execute if*

*# condition is true*

i = 10

*if* i < 15:

    print("Hi There")

If-Else Statement

-- The if statement alone tells us that if a condition is true it will execute a block of statements and if the condition is false it won’t.

-- But if we want to do something else if the condition is false, we can use the *else* statement with *if* statement to execute a block of code when the if condition is false.

-- Syntax:

*if (condition):*

*# Executes this block if*

*# condition is true*

*else:*

*# Executes this block if*

*# condition is false*

i = 20

*if* i < 20:

    print("less")

*else*:

    print("Greater")

Nested IF Statement

-- A nested if is an if statement that is the target of another if statement.

-- Nested if statements mean an if statement inside another if statement.

-- Yes, Python allows us to nest if statements within if statements. i.e., we can place an if statement inside another if statement.

-- Syntax:

*if (condition1):*

*# Executes when condition1 is true*

*if (condition2):*

*# Executes when condition2 is true*

*# if Block is end here*

*# if Block is end here*

i = 10

*if* i < 15:

    print("Less than 15")

*if* 1 < 12:

        print("Less than 12 too")

*else*:

    print("Greater than 15")

If-Elif\_else Ladder

-- Here, a user can decide among multiple options.

-- The if statements are executed from the top down. As soon as one of the conditions controlling the if is true, the statement associated with that if is executed, and the rest of the ladder is bypassed.

-- If none of the conditions is true, then the final else statement will be executed.

-- Syntax:

*if (condition):*

*statement*

*elif (condition):*

*statement*

*.*

*.*

*else:*

*statement*

i = 20

*if* i == 10:

    print("i is 10")

*elif* i == 15:

    print("i is 15")

*else*:

    print("i is 20")