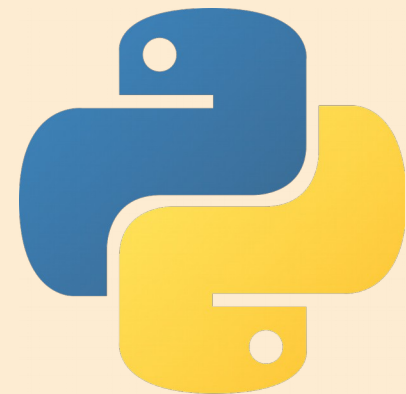


LESSON 5
CONDITIONAL STATEMENTS
(NESTED IF)

LEARNING OBJECTIVES

- ✓ Nested If block
- ✓ Example
- ✓ Group activity



RECAP OF IF - ELIF-ELSE STATEMENT

- An "if statement" is written by using the **if** keyword.
- The **elif** keyword is python's way of saying "if the previous conditions were not true, then try this condition".
- The **else** keyword catches anything which isn't caught by the preceding conditions.

Example

```
a = 200
b = 33
if b > a:
    print("b is greater than a")
elif a == b:
    print("a and b are equal")
else:
    print("a is greater than b")
```

NESTED IF

- There may be a situation when you want to check for another condition after a condition resolves to true.
- In such a situation, you can use the **nested if construct**.
- In a nested **if** construct, you can have an **if...elif...else**
- Construct inside another the **if...elif...else** construct.

Syntax

The syntax of the nested *if...elif...else* construct may be –

```
if expression1:
    statement(s)
    if expression2:
        statement(s)
    elif expression3:
        statement(s)
    elif expression4:
        statement(s)
    else:
        statement(s)
else:
    statement(s)
```

CODE EXAMPLE

```
var = 100
if var < 200:
    print "Expression value is less than 200"
    if var == 150:
        print "Which is 150"
    elif var == 100:
        print "Which is 100"
    elif var == 50:
        print "Which is 50"
    elif var < 50:
        print "Expression value is less than 50"
else:
    print "Could not find true expression"

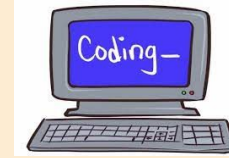
print "Good bye!"
```

https://www.tutorialspoint.com/python/nested_if_statements_in_python.htm

CODE EXAMPLE

```
'''In this program, we input a number  
check if the number is positive or  
negative or zero and display  
an appropriate message  
This time we use nested if statement'''  
  
num = float(input("Enter a number: "))  
if num >= 0:  
    if num == 0:  
        print("Zero")  
    else:  
        print("Positive number")  
else:  
    print("Negative number")
```

GROUP TASK CODING CHALLENGE



STEP 1- Make **teams of 3** - 2 mins

STEP 2 - Think of a **scenario** that will involve you to write a Python program involving **nested if condition**. – 15 mins

STEP 3 - Get the **scenario approved from the teacher** – 5 mins

STEP 4 -**Write the program** for the scenario.

STEP 5 – **Test your code**.

STEP 6 - **Sharing** with the whole class.



SOME COOL IDEAS

- [Guess The Number:](#)
 - This could be a fun beginner Python project where your code will randomly generate a number, say between 0 and 10, and the user has 5 attempts to guess this number. Based on the user's guess computer will give various hints if the number is high or low. When the user guess matches the number computer will print the answer along with the number of attempts.
- [Horoscope:](#)
 - Create a simple horoscope python project that asks the user for their star sign and outputs a fun horoscope for them. Bear in mind that your program should display an error message if the user types in their sign wrong.
- [Hangman:](#)
 - This Python game is similar to generating a random number, instead substituting a word where the user guesses the letters. You will also need to create a counter to count the number of guesses of the wrong letters.
- [Finance Tracker:](#)
 - As you can guess by the name, an expense tracker is a software application that lets you keep track of your expenses, and even analyze the expenses. In this project, you will build a simple expense tracker that can keep track of the user's expenses.
- **OR YOU CAN THINK OF YOUR OWN COOL IDEA!!!**