

PROGRAM FLOW CONTROL

PYTHON4ALL

-<https://github.com/bachinaram/python4all>

CONTENT

- Blocks and indentation
- If, If-else, If-elif-else, Nested-If
- For – if, Nested for
- Pass, break, continue
- While

BLOCKS AND INDENTATION

- BLOCKS
 - Python doesn't have BEGIN, END or curly braces in code block but it has indentation.
 - Every block can contain one or multiple blocks
 - New level of indentation starts after colon :
 - shift+tab to remove indentation and tab(4 spaces) to add indentation in editor

IF

- If condition:statement
 - If condition:
 statement
1. if blocks are used for decision making operations.
 2. Python If block doesn't require curly braces
 3. In case the condition is true, it executes the body of code.

IF-ELSE

- If condition:
 statement
else:
 statement
- If condition:statement
else:statement
- statement if condition else statement

1. In case the condition is true, it executes the body of code. Otherwise, whatever is present in the else block it executes entire code.

IF-ELIF-ELSE

- If condition:
 statement
elif condition:
 statement
else:
 statement
 - If condition:statement
elif condition:statement
else:statement
 - Statement if condition else (statement if condition else condition)
1. Python tries to find any of the conditions are true, in that case that true block executes
 2. If none of the code is true and else is also not there, It comes out and proceed with executing rest of code.

LOOPS

- Repeat block of code
 - For
 - While
 - List comprehensions

FOR

- With for loop we can iterate based on some values
- During the iteration we can repetitively execute block of code.
- So, for every value in for loop it executes block of code once
- Set of values are
 - Sequences like strings,lists,tuples, range, etc.,
 - Iterable objects (using iter() and next())

Note – sequences are also iterable objects

FOR SYNTAX

For variable in sequence:

Expressions

WHILE SYNTAX

While condition:
statements

While condition:
statements

Else:
statements

WHILE

- While condition is true it will execute block of code, and process executes continuously until condition becomes false.
- If we are not careful with while loop we may end up with infinity loops
- Python doesn't have do..While syntax, but we can achieve this in python