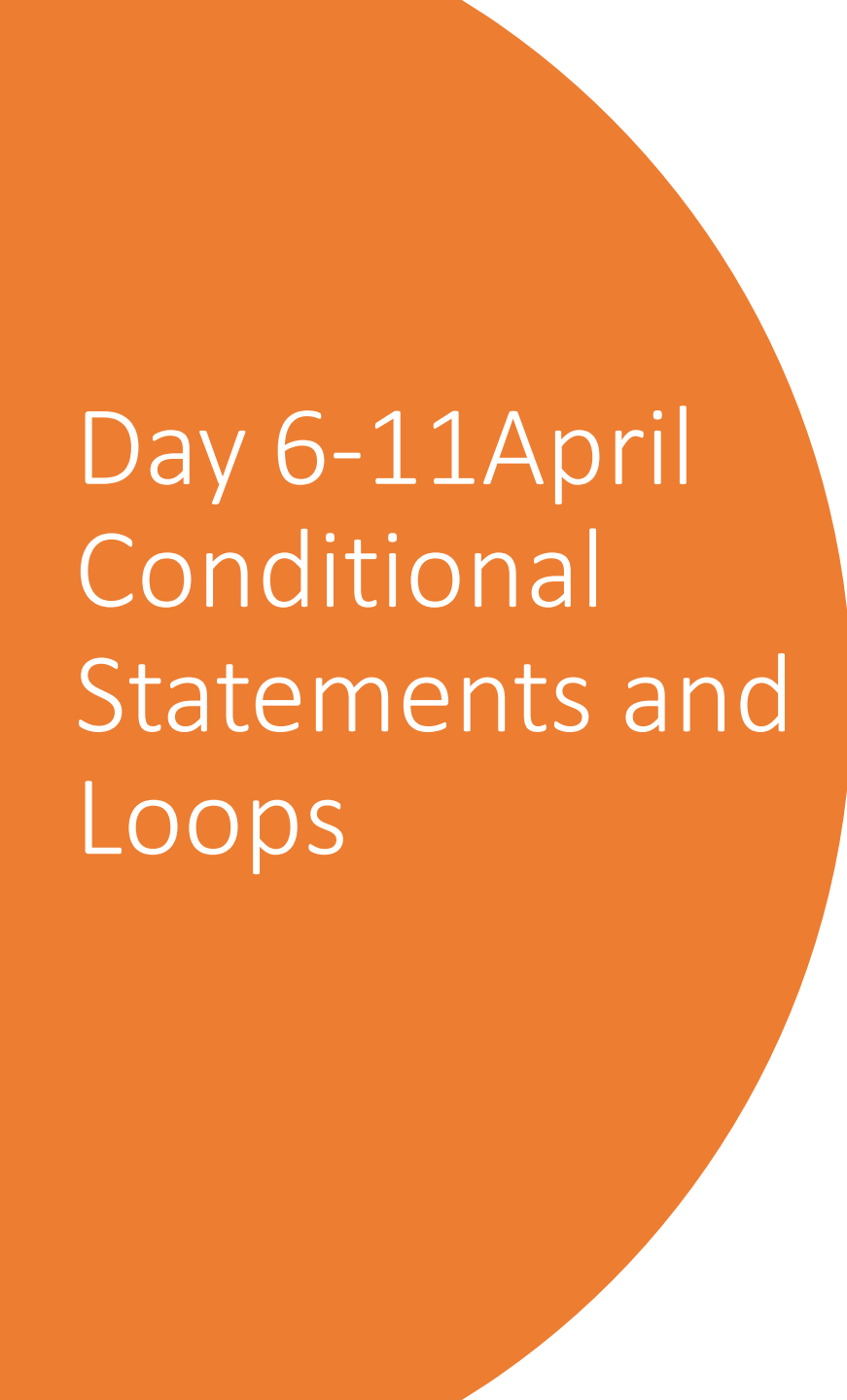


EdYoda Digital University

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Day 6-11April Conditional Statements and Loops

1. What are conditional Statements?
2. for loop Basic Introduction



Conditional Statement

Python has six conditional statements that are used in decision-making:-

1. If the statement
2. If else statement
3. Nested if statement
4. If...Elif ladder
5. Short Hand if statement
6. Short Hand if-else statement

If Statement

- The If statement is the most fundamental decision-making statement, in which the code is executed based on whether it meets the specified condition.
- It has a code body that only executes if the condition in the if statement is true.
- The statement can be a single line or a block of code.
- The if statement in Python has the subsequent syntax:

```
if expression
```

```
Statement
```

- #If the condition is true, the statement will be executed.

If Else Statement

- This statement is used when both the true and false parts of a given condition are specified to be executed.
- When the condition is true, the statement inside the if block is executed; if the condition is false, the statement outside the if block is executed.
- The if...Else statement in Python has the following syntax:

```
if condition :  
    #Will executes this block if  
the condition is true  
else :  
    #Will executes this block if  
the condition is false
```

If...Elif..else Statement

- In this case, the If condition is evaluated first. If it is false, the Elif statement will be executed; if it also comes false, the Else statement will be executed.
- The If...Elif..else statement in Python has the subsequent syntax:

```
if condition :  
    Body of if  
elif condition :  
    Body of elif  
else:  
    Body of else
```

Nested IF Statement

- A Nested IF statement is one in which an If statement is nestled inside another If statement.
- This is used when a variable must be processed more than once. If, If-else, and If...elif...else statements can be used in the program.
- In Nested If statements, the indentation (whitespace at the beginning) to determine the scope of each statement should take precedence.

- The Nested if statement in Python has the following syntax:

```
if (condition1):
```

```
#Executes if condition 1 is true
```

```
if (condition 2):
```

```
    #Executes if condition 2 is true
```

```
    #Condition 2 ends here
```

```
#Condition 1 ends here
```

Short Hand if statement

- Short Hand if statement is used when only one statement needs to be executed inside the if block.
- This statement can be mentioned in the same line which holds the If statement.
- The Short Hand if statement in Python has the following syntax:

```
if condition: statement
```


Short Hand if-else statement

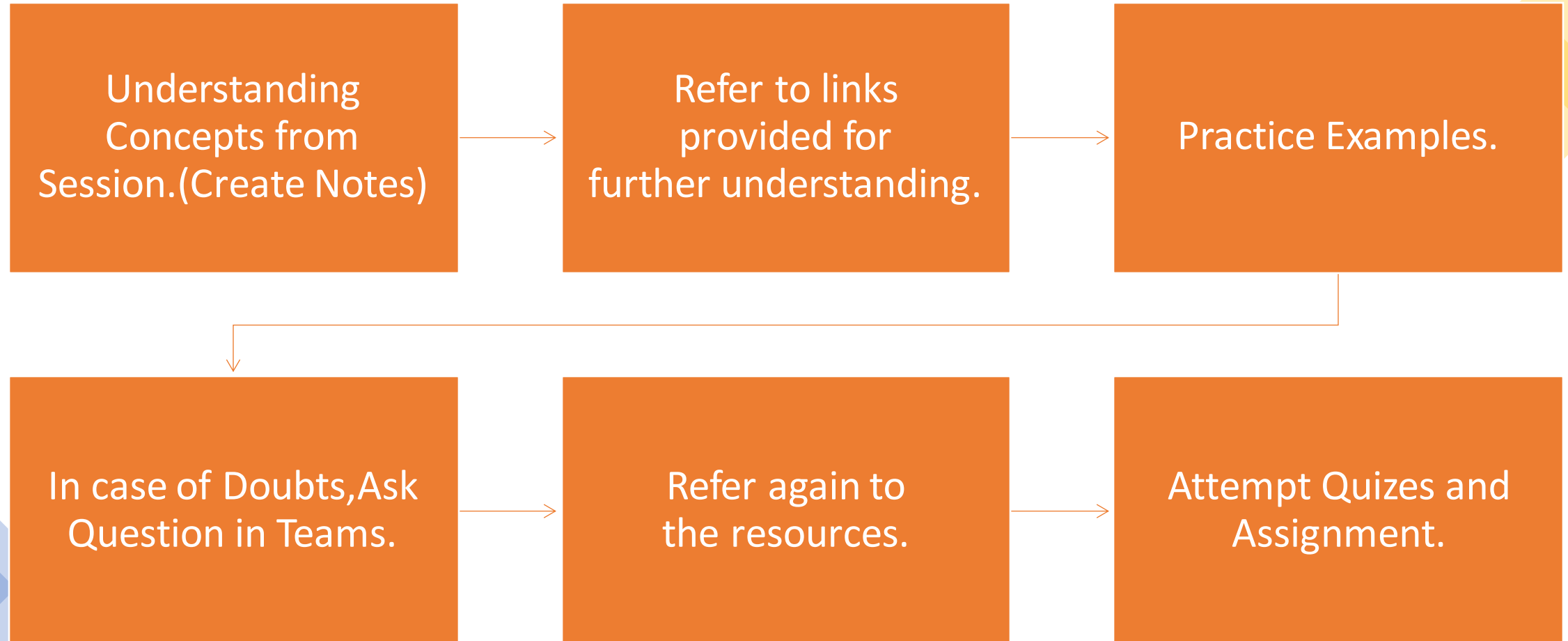
- It is used to mention If-else statements in one line in which there is only one statement to execute in both if and else blocks.
- In simple words, If you have only one statement to execute, one for if, and one for else, you can put it all on the same line.



For Loop

- The for loop in Python is used to iterate over a sequence ([list](#), [tuple](#), [string](#)) or other iterable objects. Iterating over a sequence is called traversal.
- **Syntax of for Loop**
- `for val in sequence:`
 - `loop body`
- Here, `val` is the variable that takes the value of the item inside the sequence on each iteration.
- Loop continues until we reach the last item in the sequence. The body of for loop is separated from the rest of the code using indentation.

Approach to learning Python



Anyone ??

