Flow Control Statements in Python

(Also called Control Structures in Python)

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Purpose of Flow Control Statements in Python:

The main purpose of flow control statements in Python is: To perform a specific operation/task only once If the condition is True (execute) or False (skip) To perform a specific operation/task repeatedly Continue execution for a finite number of times, Until the test condition becomes False.

Types of Flow Control Statements in Python

Flow control statements in Python are classified into three categories: 1. Conditional / Selection / Branching Statements Example: if, if-else, if-elif-else, match-case 2. Looping / Iterative / Repetitive Statements Example: for, while, for…else, while…else 3. Transfer Flow Statements Example: break, continue, pass, return

1. Conditonal or Selection or Branching Statements

The purpose of conditional (selection or branching) statements is: To perform a specific task only once, based on a condition being True or False. In other words: Conditional statements are used to execute one operation if the condition is True, Or perform a different operation if the condition is False, only once.

Types of Contditional Statements in Python

In [ ]:
```
In python, there are four types of conditional statements:

1. Simple if statement
2. if...else statement
3. if...elif... else statement
4. match... case statement
```

1. Simple if statement

Indentation basic rule:

In [ ]:
```
Basic Rule:

Each block of code (like inside if, for, while, function, or class) must be indente
Default indentation level: 4 spaces (recommended by Python style guide, PEP 8).

if True:
    print("This is indented block")
    print("It belongs to if statement")
```

Program Explanation of Flow:

In [ ]:
```
Explanation of Flow:

1️⃣ Program starts → control moves line by line from top to bottom.

2️⃣ When the if condition is encountered:
The expression inside parentheses (Test_Condition) is evaluated.

3️⃣ If the condition is True:
All indented statements under the if block (Statement-1, Statement-2, …, Statement-

4️⃣ If the condition is False:
The control skips all indented statements inside the if block.

5️⃣ Then control moves to the next unindented statement (called "Other Statements i
```

Let see the problems : (58:00)

In [14]:
```
tkt=input("do you have ticket (Yes/No)")
if tkt=="Yes":
    print("Enter the Theater")
    print("Watch the Movie")
    print("Under stand the Movie")
print("Go to home and read Python notebook")
```

```
Enter the Theater
Watch the Movie
Under stand the Movie
Go to home and read Python notebook
```

In [16]:
```
tkt=input("do you have ticket (Yes/No)")
if tkt=="Yes":
    print("Enter the Theater")
    print("Watch the Movie")
    print("Under stand the Movie")
print("Go to home and read Python notebook")
```

```
Go to home and read Python notebook
```

In [20]:
```
tkt=input("do you have ticket (Yes/No)")
if tkt.lower()=="yes":
```

```
    print("Enter the Theater")
    print("Watch the Movie")
    print("Under stand the Movie")
print("Go to home and read Python notebook")
```

```
Enter the Theater
Watch the Movie
Under stand the Movie
Go to home and read Python notebook
```

In [22]:
```
tkt=input("do you have ticket (Yes/No)")
if tkt.lower()=="yes":
    print("Enter the Theater")
    print("Watch the Movie")
    print("Under stand the Movie")
print("Go to home and read Python notebook")
```

```
Enter the Theater
Watch the Movie
Under stand the Movie
Go to home and read Python notebook
```

Write a Python Program which will accept word or value and decided whether it is palindrome or not by using simple if statement?

In [25]:
```
value=input("Enter the value or word:")
if value==value[::-1]:
    print("{} is Palindrome".format(value))
if value!=value[::-1]:
    print("{} is not Palindrome".format(value))
print("Program excution is completed")
```

```
MOM is Palindrome
Program excution is completed
```

In [27]:
```
value=input("Enter the value or word:")
if value==value[::-1]:
    print("{} is Palindrome".format(value))
if value!=value[::-1]:
    print("{} is not Palindrome".format(value))
print("Program excution is completed")
```

```
MRIIRS is not Palindrome
Program excution is completed
```

In [31]:
```
value=input("Enter the value or word:") #1:08:00
if value==value[::-1]:
    print("{} is Palindrome".format(value))
if value!=value[::-1]:
    print("{} is not Palindrome".format(value))
print("Program excution is completed")
```

```
liril is Palindrome
Program excution is completed
```

In [33]:
```
value=input("Enter the value or word:") #1:13:00
if value==value[::-1]:
    print("{} is Palindrome".format(value))
```

```
if value!=value[::-1]:
    print("{} is not Palindrome".format(value))
print("Program excution is completed")
```

```
12344321 is Palindrome
Program excution is completed
```

In [35]:
```
value=input("Enter the value or word:")
if value==value[::-1]:
    print("{} is Palindrome".format(value))
if value!=value[::-1]:
    print("{} is not Palindrome".format(value))
print("Program excution is completed")
```

```
8558 is Palindrome
Program excution is completed
```

Write a Python Program which will accept numerical value decided whether it is even or Odd?

In [41]:
```
n=float(input("Enter the Number"))
if (n%2==0):
    print("{} is Even Number".format(n))
if (n%2!=0):
    print("{} is odd Number".format(n))
print("Program Excution is completed")
```

```
2.0 is Even Number
Program Excution is completed
```

In [43]:
```
n=float(input("Enter the Number"))
if (n%2==0):
    print("{} is Even Number".format(n))
if (n%2!=0):
    print("{} is odd Number".format(n))
print("Program Excution is completed")
```

```
3.0 is odd Number
Program Excution is completed
```

In [47]:
```
n=float(input("Enter the Number")) # Zero also Even number ***
if (n%2==0):
    print("{} is Even Number".format(n))
if (n%2!=0):
    print("{} is odd Number".format(n))
print("Program Excution is completed")
```

```
0.0 is Even Number
Program Excution is completed
```

In [49]:
```
n=float(input("Enter the Number"))
if (n%2==0):
    print("{} is Even Number".format(n))
if (n%2!=0):
    print("{} is odd Number".format(n))
print("Program Excution is completed")
```

```
12.0 is Even Number
Program Excution is completed
```

In [ ]:
```
THE SESSION IS COMPLETED
```