



Python Programming

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Contents



Comments in Python



Flow Control: Condition



Blocks



if-else



If-elif-else



Nested if

Creating a Comment

- Comments starts with a #, and Python will ignore them:

```
#This is a comment  
print("Hello, World!")
```

- Multi Line Comments(triple quotes)

```
"""  
This is a comment  
written in  
more than just one line  
"""  
  
print("Hello, World!")
```

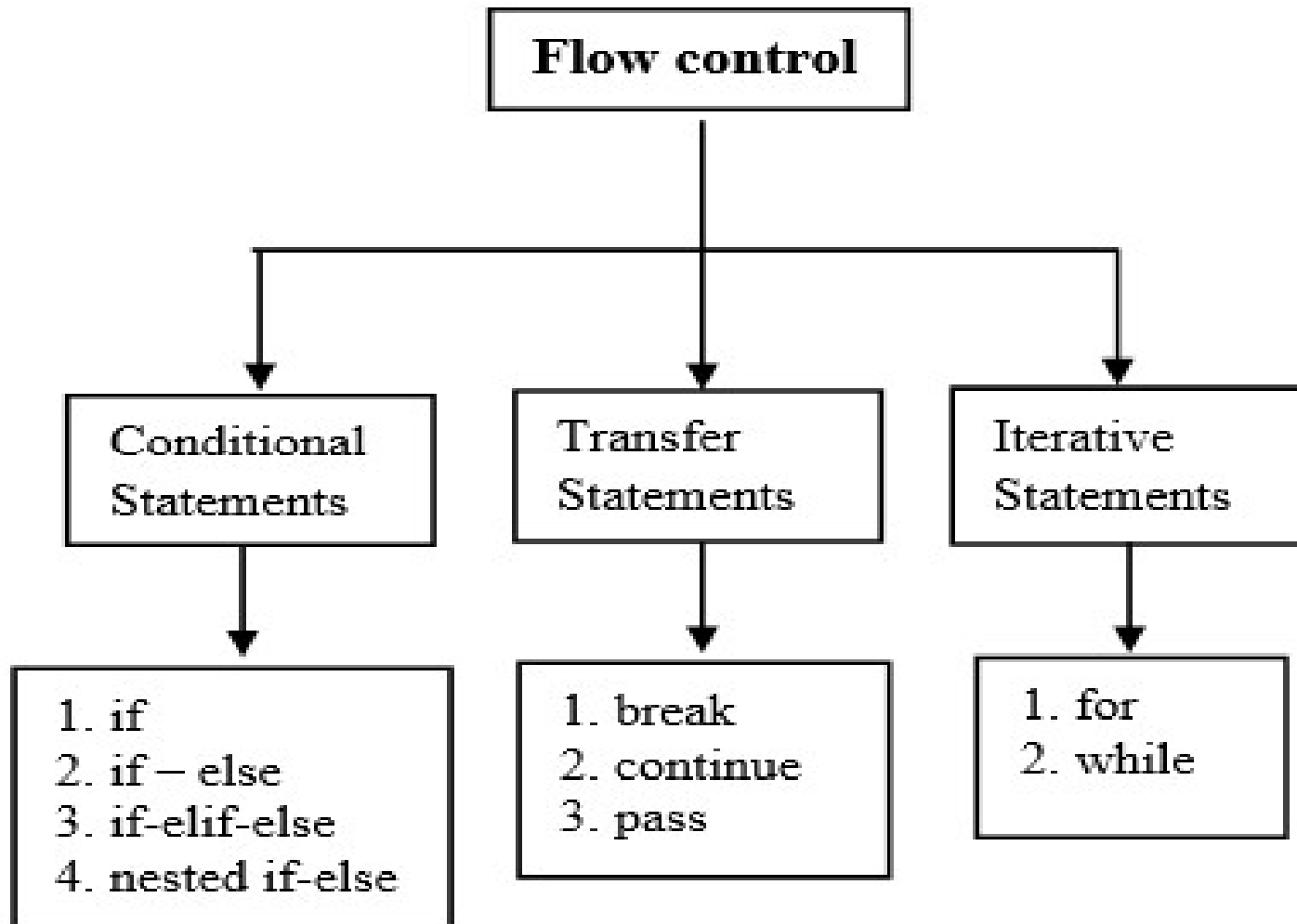
Ask user for his name and say hello. Also tell him how long his name is.

● Few functions needed:

- `print()` - prints on screen
- `input()` - reads one line of input
- `len()`, `str()`, *float()*, *int()*

- The flow control statements are divided into **three categories**
 - Conditional statements
 - Iterative statements.
 - Transfer statements

Flow control statements



Flow Control: Condition and Blocks

- Condition is a boolean expression

- Blocks

- indentation define start of blocks

- blocks can contain other blocks

- when indentation ends block ends

```
if x>0:
```

```
    print("Number is positive")
```

```
y = 7
```

```
if y%5 == 0:
```

```
    print("Number is divisible by 5")
```

- In Python, condition statements act depending on whether a given condition is true or false. You can execute different blocks of codes depending on the outcome of a condition. Condition statements always evaluate to either True or False.

Flow Control: if, else

- if, elif, else are keywords
- if statement structure
 - if keyword followed by a boolean expression
 - followed by a colon
 - followed by an indented block of code on next line
- else clause is optional
 - defined using keyword else followed by a colon
 - followed by an indented block of code on next line

Syntax of the if statement

if condition:

statement 1
statement 2
statement n

Example

```
number = 6
if number > 5:
    # Calculate square
    print(number * number)
print('Next lines of code')
```

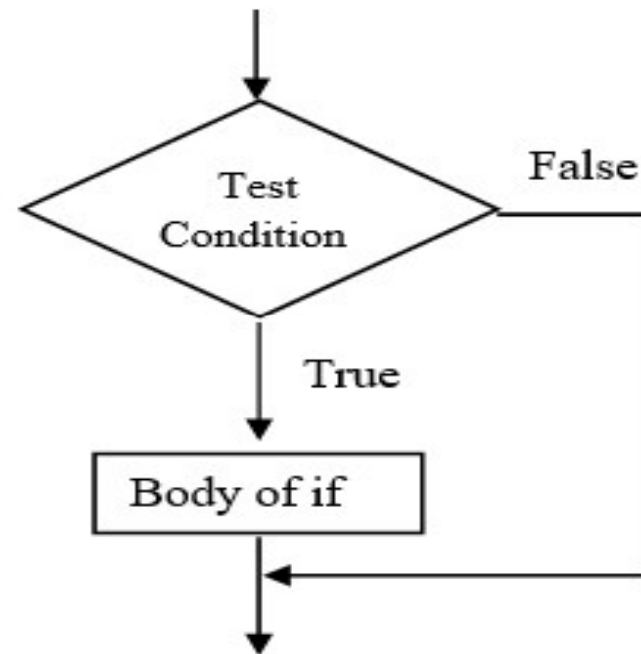


Fig. Flowchart of if statement

If – else statement



Syntax

```
if condition:  
    statement 1  
else:  
    statement 2
```

Example

```
password = input('Enter password ')  
if password == "chitkara123":  
    print("Correct password")  
else:  
    print("Incorrect Password")
```

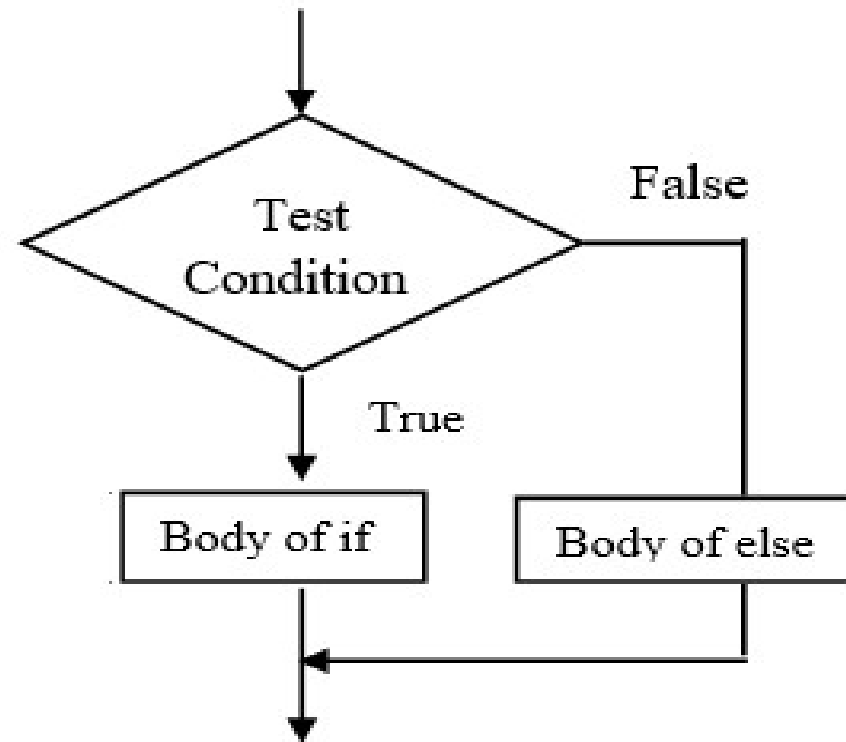


Fig. Flowchart of if-else

Flow Control: if, else

```
password = input('Enter password ')\nif password == "PYnative@#29":\n    print("Correct password")\nelse:\n    print("Incorrect Password")
```



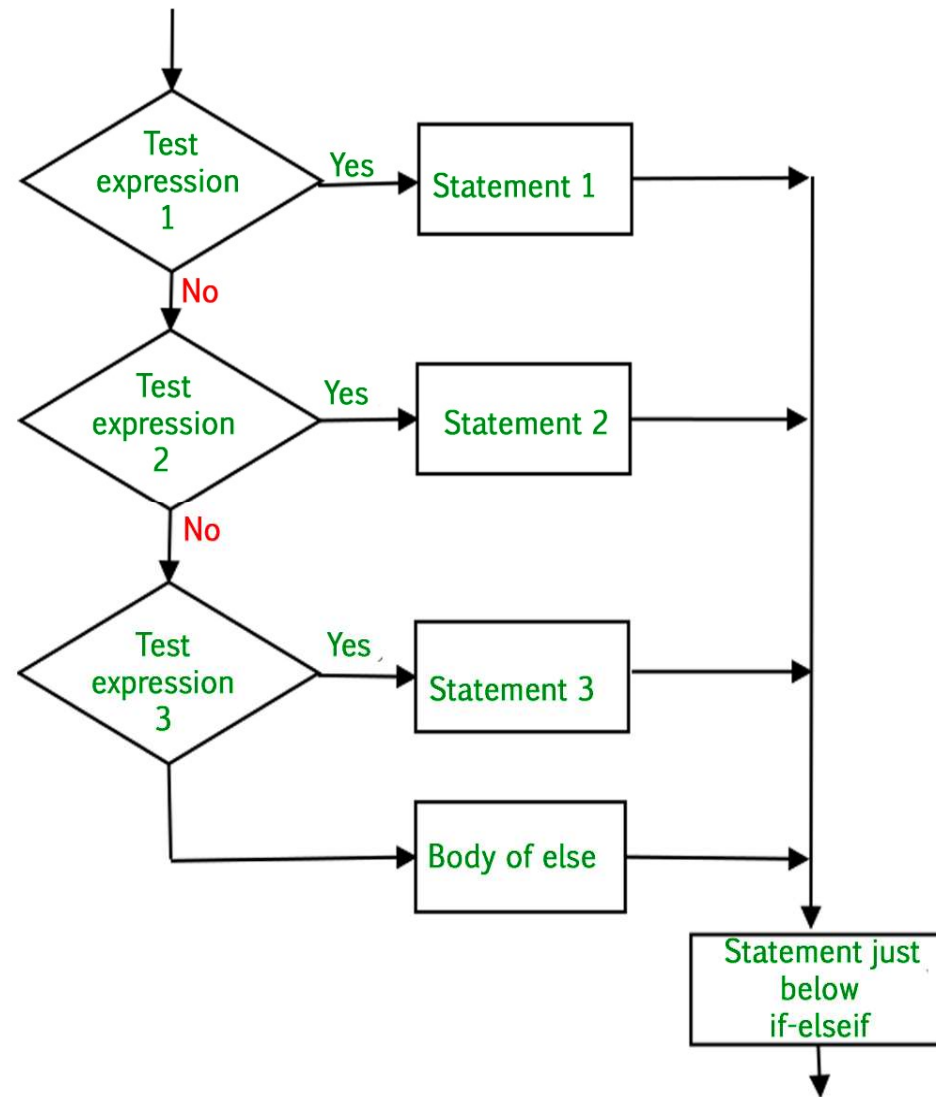
```
if name == 'Ramesh':  
    print('Hi, Ramesh.')  
elif name == 'Radha':  
    print('Hi, Radha')  
else:  
    print('Hello, stranger.')
```

if-elif-else condition statement



Syntax

```
if condition-1:  
    statement 1  
elif condition-2:  
    statement 2  
elif condition-3:  
    statement 3  
else:  
    statement
```



if-elif-else Example

x=3

if x>10:

print("x is big.")

elif x>0:

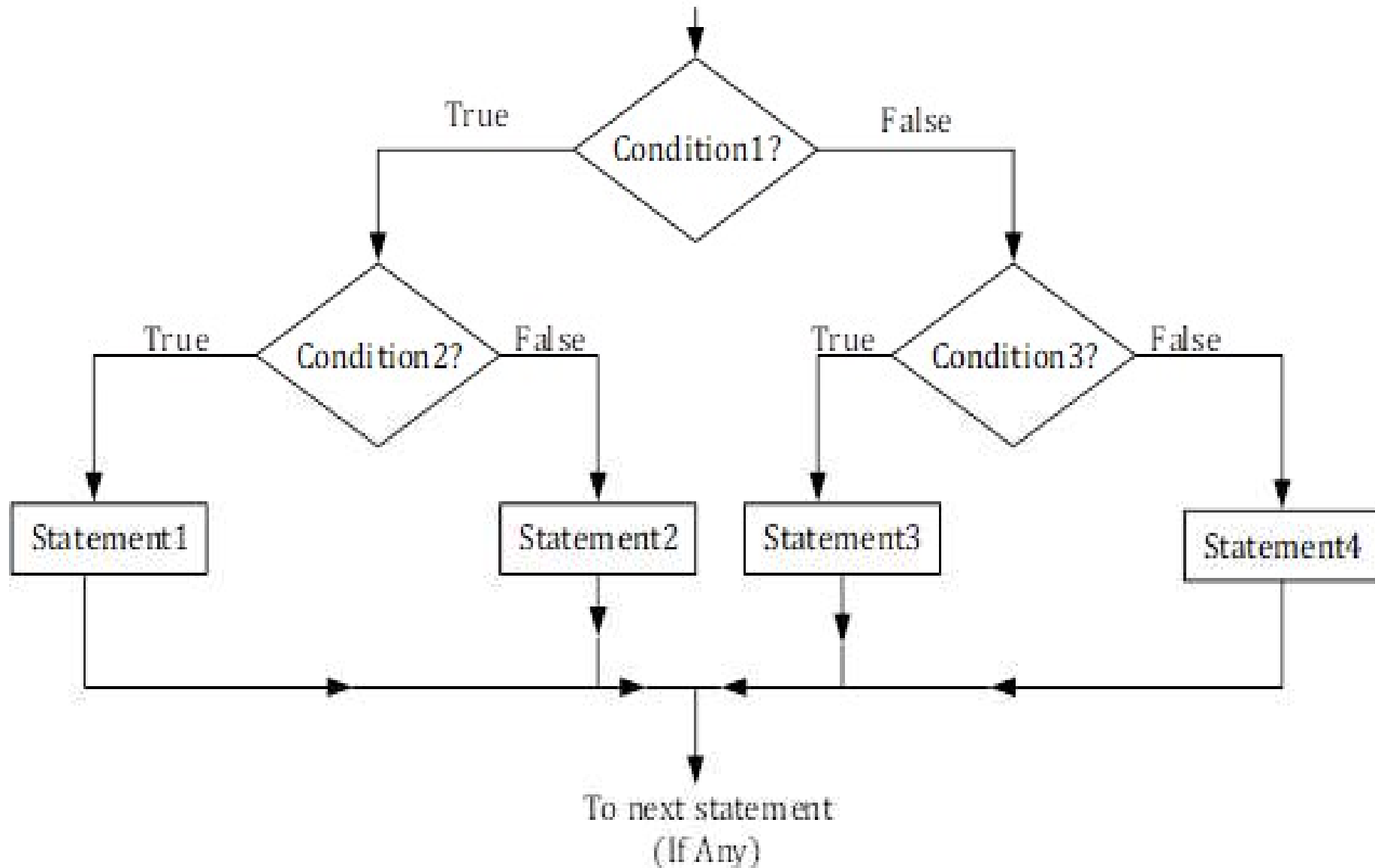
print("x is small.")

else:

print("x is not positive.")

Nested if

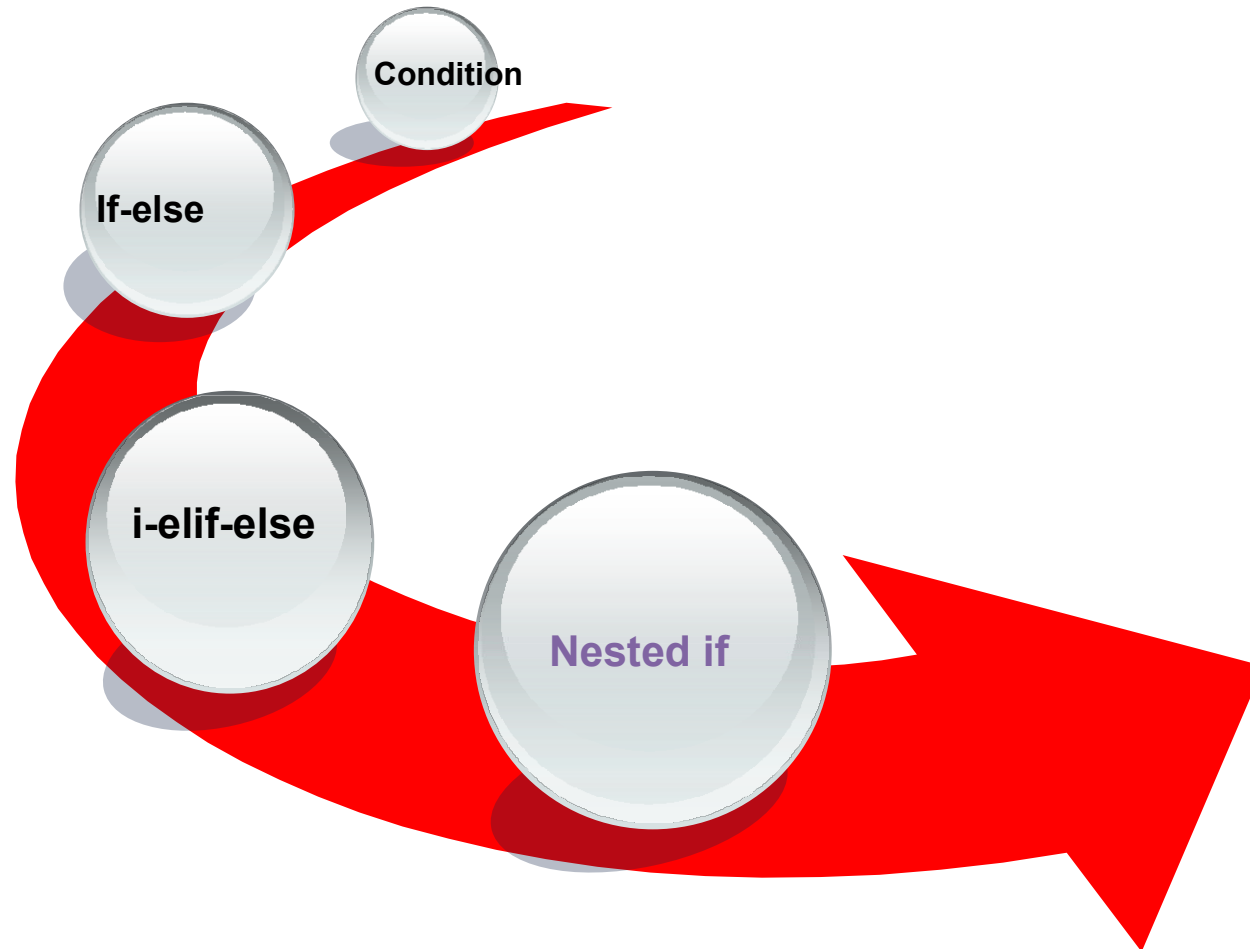
```
if (Condition1) :  
    if(Condition2) :  
        Statement1  
    else:  
        Statement2  
else:  
    if(Condition3) :  
        Statement3  
    else :  
        Statement4
```

Example

```
num = float(input("Enter a number: "))  
if num >= 0:  
    if num == 0:  
        print("Zero")  
    else:  
        print("Positive number")  
else:  
    print("Negative number")
```

Summery





Thank You !