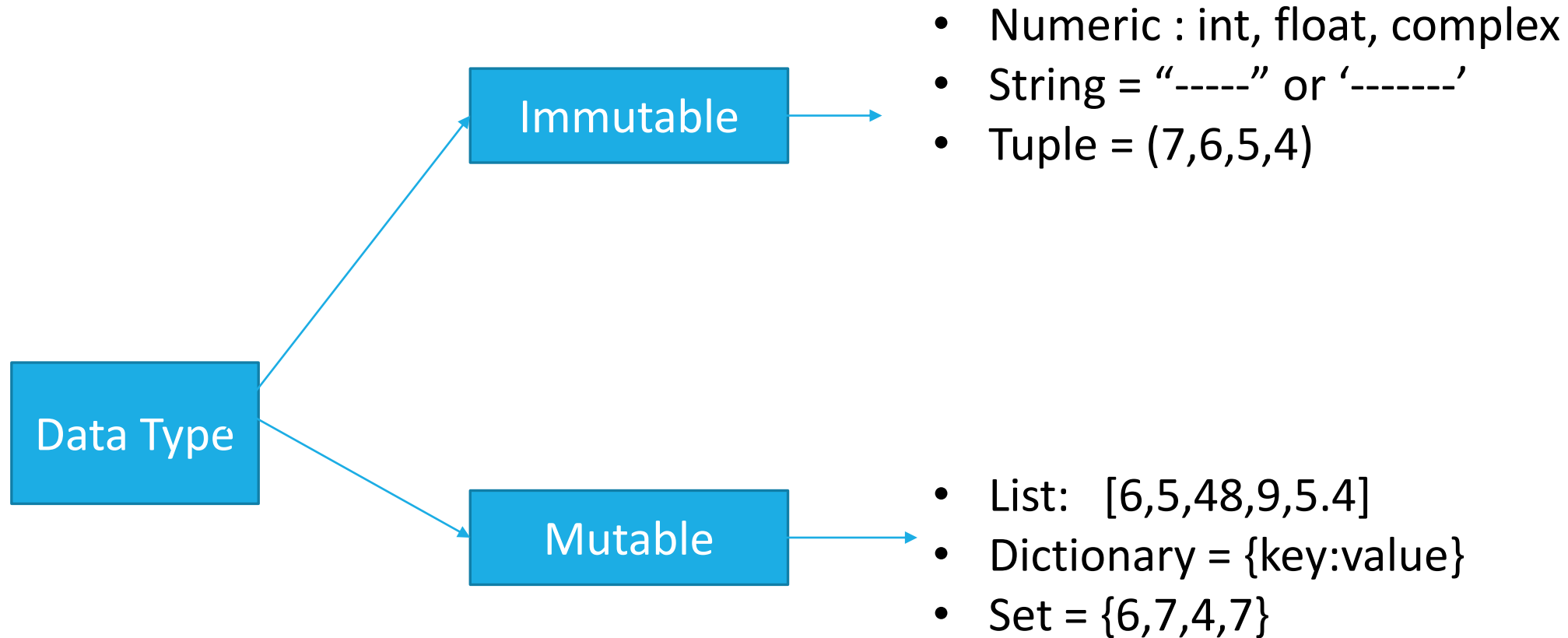


Variable

Keyword



List, tuple, dict, set working as a container

Input & Output function

$$Y = 2x + 5$$

Take input
(x)

`input([Prompt])`
as string

$$Y = 2x + 5$$

Output()
y

`print(y)`

Find the value of these questions, where $x=5$.

$$\frac{2x + 5}{x^2 + 5x + 6} \quad \mathbf{0.267}$$

$$\frac{x^2 + 5x + 6}{2x + 5} \quad \mathbf{3.733}$$

$$(2x - 3)(x + 9) \quad \mathbf{98}$$

Operators

1. **Arithmetic operator**
2. **Assignment operator**
3. **Relational Operator**
4. **Logical operator**
5. **Bitwise operator**
6. **Identity operator**
7. **Membership operator**

6+8

Arithmetic operator

Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponentials	**
Module	%
Floor division (Integer Division)	//

Assignment operator

=	A=7	
+=	a+=b	a=a+b
-=	a-=b	a= a-b
=	a=b	a= a*b
/=	a/=b	a= a/b
%=	a%=b	a= a%b
//=	a//=b	a= a//b

Relational operator

a= 7, b= 4

>	T/F
<	
>=	
<=	
!=	
==	

Logical Operator

and	&	
or		
not		
xor	^	

a	b	and	or	xor	not(a)
T(1)	T	T	T	F	F
F(0)	T	F	T	T	T
T	F	F	T	T	F
F	F	F	F	F	T

Identity Operator

is

is not

Membership Operator

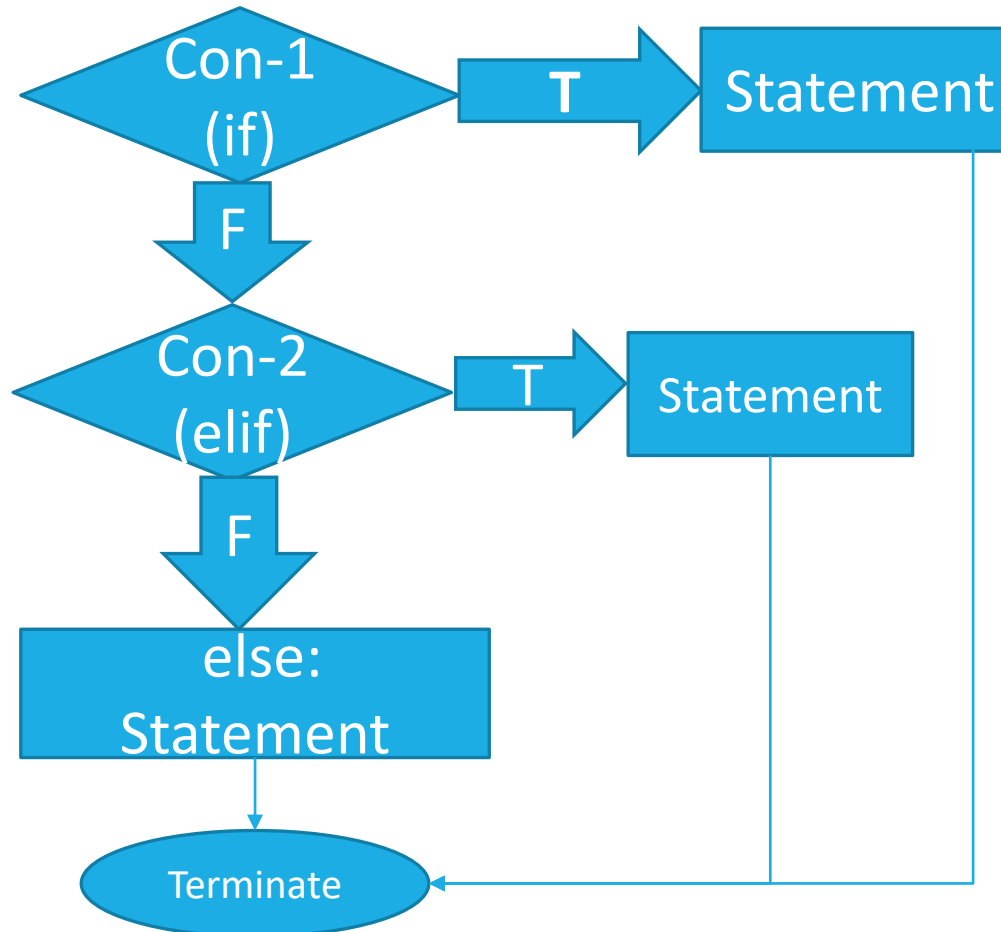
in

not in

Conditional Statement

Conditional Statement in Python perform different computations or actions depending on whether a specific Boolean constraint evaluates to true or false.

if-elif-else



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

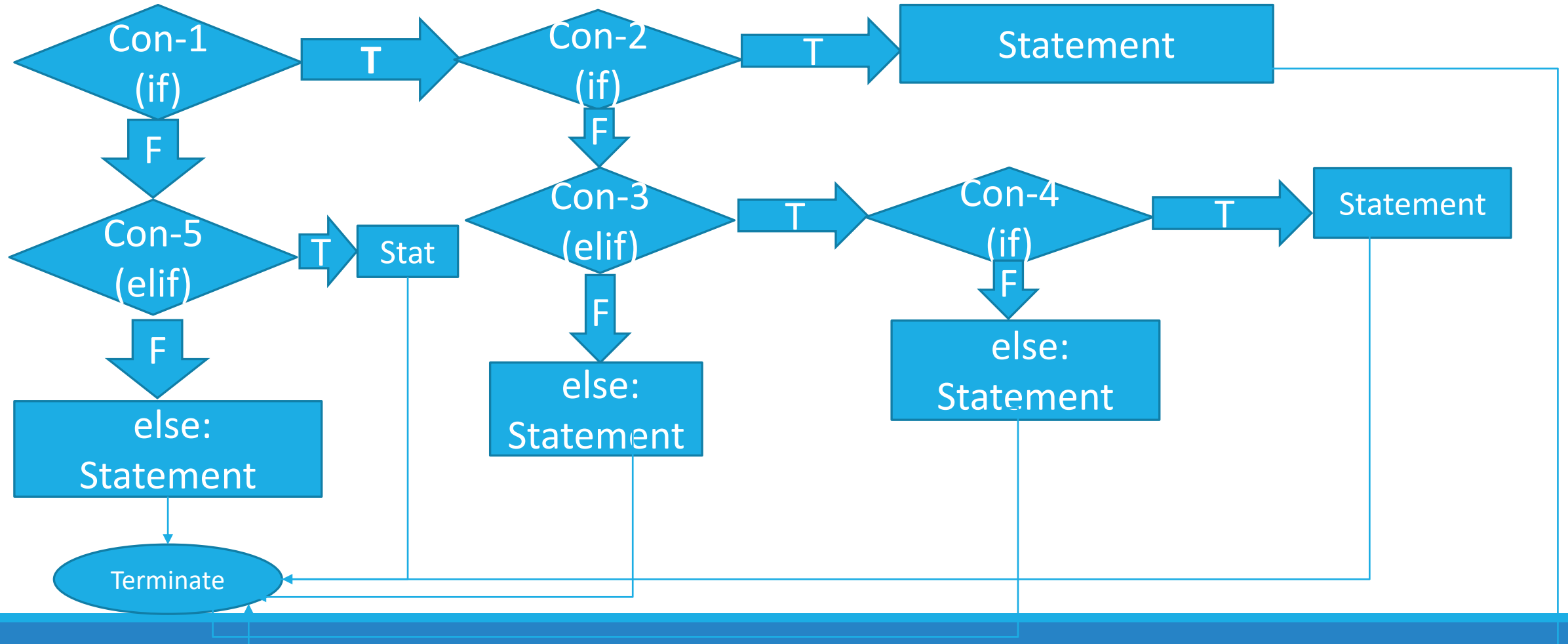
How condition will start

Primary condition – if

After true – if

After false - elif

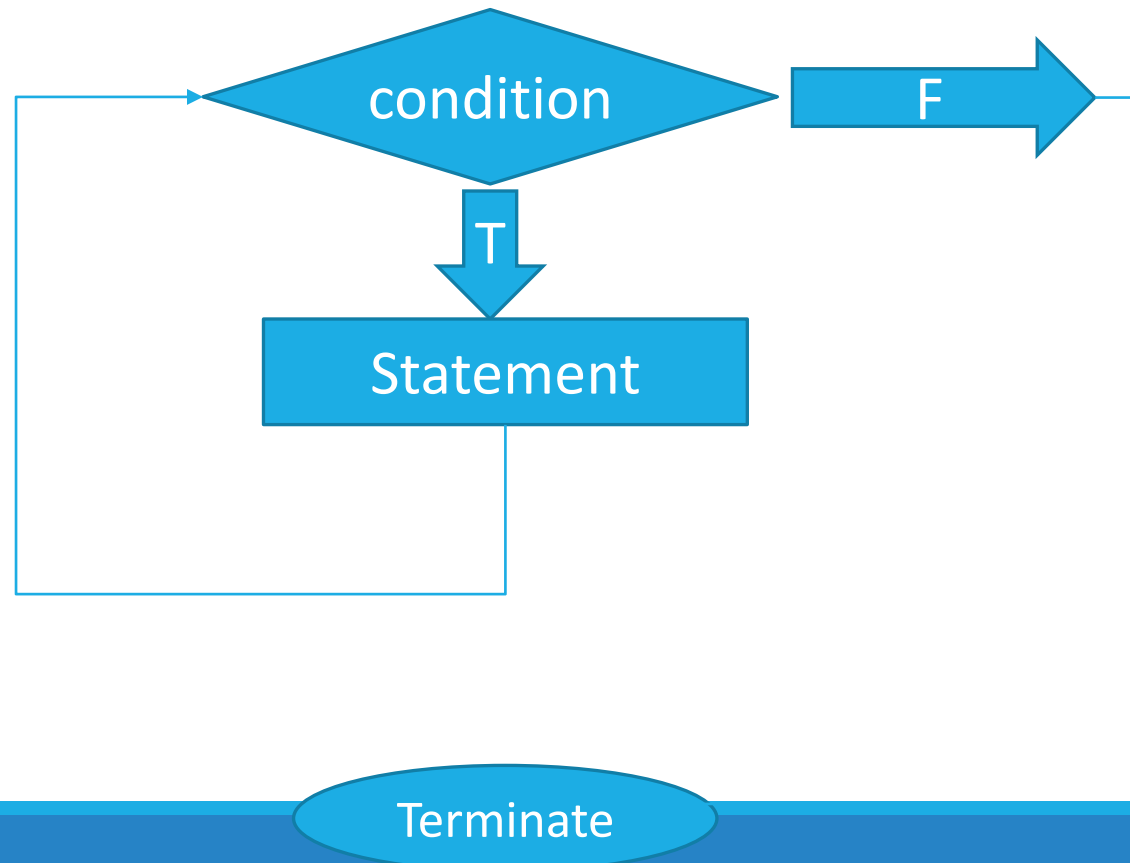
Nested Conditional Statement



Loop

loop is used for iterating over a sequence

while loop
for loop



While Loop

Syntax:

```
while condition:  
    #statement  
    #increment/decrement
```

For Loop

Syntax:

```
for var in sequence:  
    #statement
```

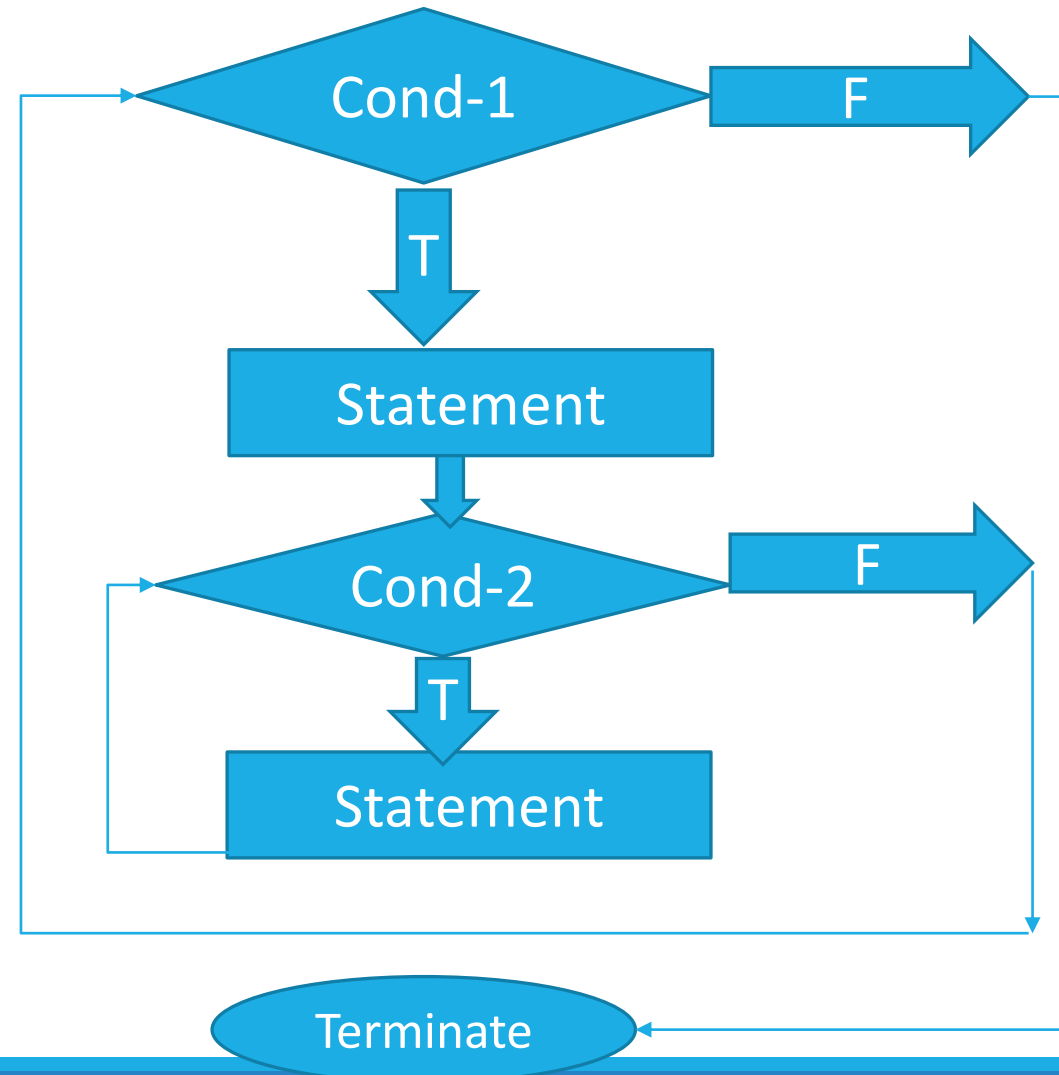
Where:

statement is :

```
range(start, end, I/D)  
string  
tuple  
list  
Dict  
set
```

Nested While Loop

Nested For Loop



Nested For Loop

	0	1	2	3	4
0	*				
1	*	*			
2	*	*	*		
3	*	*	*	*	
4	*	*	*	*	*

Assignment

Username & Password Login