if..elif..else (if..else ladder)

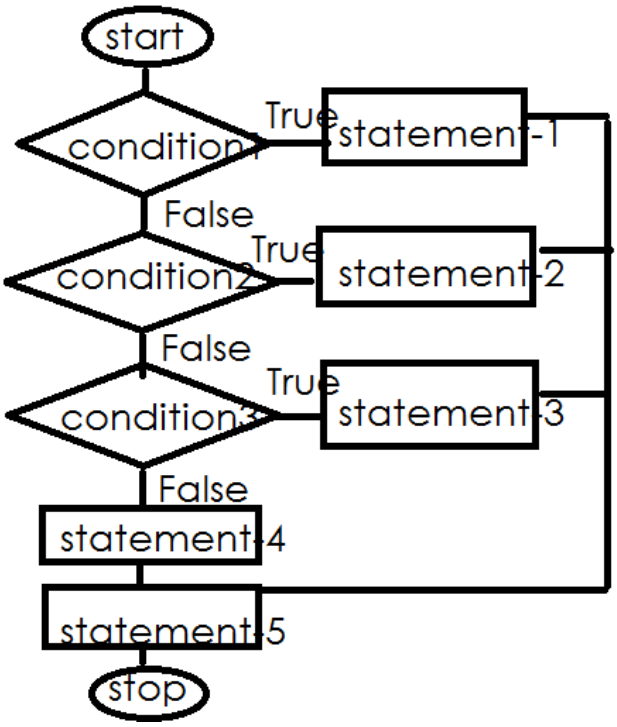
This syntax is to check more than one condition or multiple conditions.

Syntax:

```
if condition1:
  Statement-1
elif condition2:
   Statement-2
elif condition3:
   Statement-3
else:
   Statement-4

Statement-5
```

If condition1 is True, it execute statement-1 and statement-5
If condition1 is False, condition2 is True, it execute statement-2 and statement-5
If condition1,condition2 is False and condition3 is True, it execute statement-3 and statement-5
If condition1,condition2,condition3 are False, it execute statement-4 and statement-5



Q8. Write a program to calculate the electricity bill (accept number of unit from user) according to the following criteria :

Unit	Price
First 100 units	no charge
Next 100 units	Rs 5 per unit
After 200 units	Rs 10 per unit

(For example if input unit is 350 than total bill amount is Rs2000)

Show Answer

```
units=int(input("enter units"))
if units<=100:
    amt=0
elif units>100 and units<=200:
    amt=(units-100)*5
else:
    amt=500+(units-200)*10

print("Total Amount",amt)
```

Output:

```
enter units100
Total Amount 0

========= RESTART: F:/python6pmaug/test42.py =========
enter units150
Total Amount 250

========= RESTART: F:/python6pmaug/test42.py =========
enter units300
Total Amount 1500
```

https://www.hackerrank.com/challenges/py-if-else/problem?isFullScreen=false

```
    n = int(input().strip())
    if n%2!=0:
```

```
        print("Weird")
    elif n>=2 and n<=5:
        print("Not Weird")
    elif n>=6 and n<=20:
        print("Weird")
    else:
        print("Not Weird")
```

Q1. Write a program to accept percentage from the user and display the grade according to the following criteria:

Marks	Grade
> 90	A
> 80 and <= 90	B
>= 60 and <= 80	C
below 60	D

```
p=float(input("enter p"))
if p>90:
    print("A")
elif p>80 and p<=90:
    print("B")
elif p>=60 and p<=80:
    print("C")
else:
    print("D")
```

Q2. Write a program to accept the cost price of a bike and display the road tax to be paid according to the following criteria :

Cost price (in Rs)	Tax
> 100000	15 %
> 50000 and <= 100000	10%
<= 50000	5%

```
price=int(input("Enter bike cost"))
if price>100000:
    tax=price*15/100
```

```
elif price>50000 and price<=100000:
    tax=price*10/100
else:
    tax=price*5/100

print("Tax is ",tax)
```

nested if

nested means within
if followed by if is called nested if (OR) if within if is called nested if

Syntax

```
if condition1:
   if condition2:
      statement-1
   else:
      statement-2
else:
   statement-3
```

 # Login or Signin

```
uname=input("UserName")
pwd=input("Password")
if uname=="nit":
    if pwd=="nit123":
        print("welcome to my application")
    else:
        print("invalid password")
else:
    print("invalid username")
```

```
if uname=="nit" and pwd=="nit123":
    print("welcome")
else:
    print("invalid username or password")
```

Example:

```
# write a program to find max of 3 numbers

a,b,c=map(int,input("enter 3 values").split())
if a>b:
    if a>c:
        print(a,"is max")
    else:
        print(c,"is max")

elif b>c:
    print(b,"is max")
else:
    print(c,"is max")
```

Output:

```
enter 3 values10 20 30
30 is max

========== RESTART: F:/python6pmaug/test47.py =========
enter 3 values30 20 10
30 is max

========== RESTART: F:/python6pmaug/test47.py =========
enter 3 values10 30 20
30 is max
```

match statement

match statement is introduced in python 3.10 version
match statement is similar to switch statement in C,C++ and Java
match is a selection statement or conditional statement.