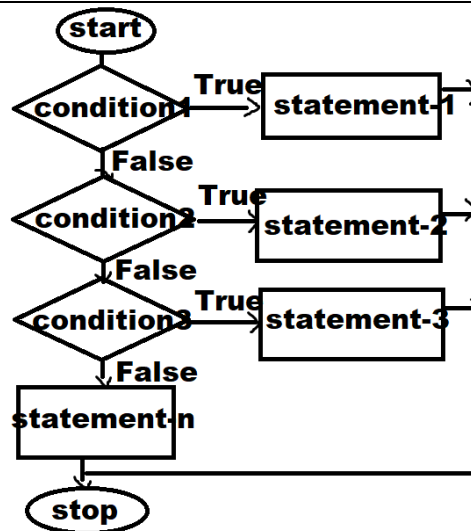## If..elif..else (if..else ladder)
This syntax is used for checking multiple conditions.

Syntax:

If <condition1>:
  Statement-1
elif <condition2>:
  Statement-2
elif <condition3>:
  Statement-3
…
else:
  Statement-n

If condition1 is True, PVM executes statement-1
If condition1 is False and condition2 True, PVM executes statement-2
If condition1,condition2 are False and condition3 True PVM executes statement-3
If all conditions are false, PVM execute statement-n

Example:
```
# Write a program to find input number is +ve,-ve or zero

num=int(input("Enter any number "))

if num>0:
    print("+ve number")
elif num<0:
    print("-ve number")
else:
```

```
   print("zero")
```

Output
Enter any number 5
+ve number

Enter any number -6
-ve number

Enter any number 0
Zero

Example
Write a program to find max of 3 numbers

```
num1=int(input("Enter first number "))
num2=int(input("Enter second number "))
num3=int(input("Enter third number "))

if num1>num2 and num1>num3:
   print(num1,"is max")
elif num2>num1 and num2>num3:
   print(num2,"is max")
elif num3>num1 and num3>num2:
   print(num3,"is max")
else:
   print("Equal")
```

Output
Enter first number 40
Enter second number 20
Enter third number 10
40 is max

Enter first number 10
Enter second number 30
Enter third number 20
30 is max

Enter first number 10
Enter second number 20
Enter third number 70
70 is max

```python
n=int(input())
if n%2!=0:
    print("Weird")
elif n>=2 and n<=5:
    print("Not Weird")
elif n>=6 and n<=20:
    print("Weird")
elif n>20:
    print("Not Weird")
```

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

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

print("Bill ",amt)
```

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%

Show Answer

```
bike_price=int(input("Enter Bike Price "))
if bike_price>100000:
    tax=bike_price*15/100
elif bike_price>50000 and bike_price<=100000:
    tax=bike_price*10/100
else:
    tax=bike_price*5/100

print("Bike Price  {}".format(bike_price))
print("Tax to be Paid {}".format(tax))
```

Output
Enter Bike Price 150000
Bike Price 150000
Tax to be Paid 22500.0

Enter Bike Price 80000
Bike Price 80000
Tax to be Paid 8000.0

Enter Bike Price 45000
Bike Price 45000
Tax to be Paid 2250.0

Example
```
# Write a program to input hours in 24 hours format
# Good Morning
# Good Afternoon
# Good Evening
# Good Night

h=int(input("Enter Hours in 24 Hours Format "))
if h<=12:
    print("Good Morning")
elif h>12 and h<=17:
    print("Good Afternoon")
elif h>17 and h<=20:
    print("Good Evening")
```

```
else:
    print("Good Night")
```

Output
Enter Hours in 24 Hours Format 2
Good Morning

Enter Hours in 24 Hours Format 13
Good Afternoon

Enter Hours in 24 Hours Format 18
Good Evening

Enter Hours in 24 Hours Format 21
Good Night

Q3. A company decided to give bonus to employee according to following criteria:

Time period of Service	Bonus
More than 10 years	10%
>=6 and <=10	8%
Less than 6 years	5%

Ask user for their salary and years of service and print the net bonus amount.

```
salary=int(input("Enter Salary "))
service=int(input("Enter Service "))
if service>10:
    bonus=salary*10/100
elif service>=6 and service<=10:
    bonus=salary*8/100
else:
    bonus=salary*5/100

print("Salary is {}".format(salary))
print("Bonus is {}".format(bonus))
```

Write a program to input character and find
character is alphabet

```
# character is digit
# character is special character

ch=input("Enter any character ")

if (ch>='A' and ch<='Z') or (ch>='a' and ch<='z'):
    print("Alphabet")
elif ch>='0' and ch<='9':
    print("Digit")
else:
    print("Special character")
```

Output
Enter any character B
Alphabet

Enter any character b
Alphabet

Enter any character 4
Digit

Enter any character $
Special character

Nested if

If followed by if nested if (OR) if inside if is called nested if