

Conditional statements:-

Types:-

If statement

If else statement

Nested if statement

If-elif-else statement

If statement:-

a=10

b=12

if (a == b):

 print (" a is equal to b")

If-else-statement:-

a=10

b=12

if (a == b):

 print (" a is equal to b")

else:

 print (" a is not equal to b")

Nested if :-

orange_quality = "fresh"

orange_price = 4.0

if (orange_quality == "fresh"):

 if (orange_price < 5):

 print(" buy 24 orange")

 else:

 print(" buy 12 orange")

else:

print(" don't buy oranges")

if-elif-else statements:-

```
t = input("What is the time?")
```

```
x=int(t)
```

```
if (x < 10):
```

```
    print ("Good morning")
```

```
elif (x<12):
```

```
    print ("Soon time for lunch")
```

```
elif (x<18):
```

```
    print ("Good day")
```

```
elif (x<22):
```

```
    print ("Good evening")
```

```
else:
```

```
    print ("Good night")
```

Loops:-

Types:-

while loop

While – else condition

for loop

for – else condition

nested loops

whileloop :-

```
count = 10  
while (count < 20):  
    print ('count value is:',count)  
    count = count + 1  
print('hi',count)
```

While – else condition :-

```
v = 0  
while v < 10:  
    print (v, " is less than 10")  
    v = v + 1  
else:  
    print (v, " is not less than 10")
```

for loop:-

range(start, stop, step)-

start – the starting number (defaults to 0)

stop – the end number

step – the difference between each number (defaults to 1)

Program1-

```
x = range(3, 9)  
for n in x:  
    print(n)
```

Program2-

```
x = range(3, 10, 2)  
for n in x:  
    print(n)
```

Program3-

```
a = ['Mary', 'had', 'a', 'little', 'lamb']
```

```
for i in range(len(a)):
```

```
    print( i, a[i])
```

Program4-

```
for c in 'Piyush':
```

```
    print( 'Current charactor :', c)
```

```
bikes = ['honda','bajaj','tvs']
```

```
for bike_name in bikes:
```

```
    print ('current bike :', bike_name)
```

Program5-

```
for c in 'Piyush':
```

```
    print( 'Current charactor :', c)
```

```
bikes = ['honda','bajaj','tvs']
```

```
for bike_name in bikes:
```

```
    print ('current bike :', bike_name)
```

for – else condition and nested loops:-

```
for num in range(10,20):
```

```
    for i in range(2,num):
```

```
        if num%i == 0:
```

```
            print (num, 'is not a prime number')
```

```
            break
```

```
    else:
```

```
        print (num, 'is a prime number')
```

Break:-

```
for char in 'Piyush':  
    if char == 's':  
        break  
    print ('Current charactor :', char)
```

```
n = 20  
while n > 0:  
    print ('Current variable value :', n)  
    n = n -1  
    if n == 15:  
        break  
print ("end")
```

Continue:-

```
for char in 'Piyush':  
    if char == 's':  
        continue  
    print ('Current charactor :', char)  
n = 20  
while n > 0:  
    n = n -1  
    if n == 15:  
        continue  
    print ('Current variable value :', n)
```

pass:-

Pass –any loop,function or class that is not implemented yet, but we want to implement it in the future. So we will use pass for interpreter to understand the code execution.

```
seq = ['a', 'b', 'c']
```

```
for val in seq:
```

```
    pass
```

```
def xyz(arg):
```

```
    pass
```

```
class abc:
```

```
    pass
```