**Random execution:**

Executing program randomly not line by line and uses control statements to randomly execute it.

**Control Statements:**

1. **If -Statement:**

Useful to execute a task depending on a condition.

Syntax:

* **If Statement:**

if condition:

<four spaces> task #If four Spaces are not used then it will be considered outside of the if condition.

* **If –else Statement**:

if cond1:

task1

else:

task2

* **If-elif-else Statement:**

if cond1:

task1

elif:

task2

elif:

task3

.

.

.

else:

task4

1. **While:**

Useful to repeatedly execute the group of statements as long as a condition id True.

Syntax:

while cond:

Statement1

Statement2

Ps: n++ does not work in python.

1. **For loop:**

Like java you don’t use array[0] or list[0] in python you directly use ‘I’,It will use if use range function of length rather than direct in list like given below

For example:

mylist=[3,5,6,-10,8,9,0,6]

sum=0

for i in mylist:

    sum=sum+i

print(sum)

print(sum//len(mylist))

x=len(mylist)

for i in range(1,int(x)):

    print(mylist[i])

Useful to execute a group of statements repeatedly depending on a sequence.

Sequence: object contains group of elements.

Syntax:

I in range (1,11):

Print(i)

1. Break stmt:

Syntax:

While cond:

Main

If cond:

Break

Main2

1. Continue

Syntax:

Same as break

1. Else suit:

Syntax:

While cond:

Stmt

Else:

Stmt

For var in seq:

Stmt

Else:

Stmt

1. Pass statement ->

does nothing.

1. Assert->

To validate user input

Syntax:

Assert cond,’message’

If assert condition satisfies it will give error assertion error and will display message written after the assert statement.

1. Return

Python supports only while no do while.