13-04-2025

Agenda:

→ loops & function

Iterator:

an object that can be iterated

↓

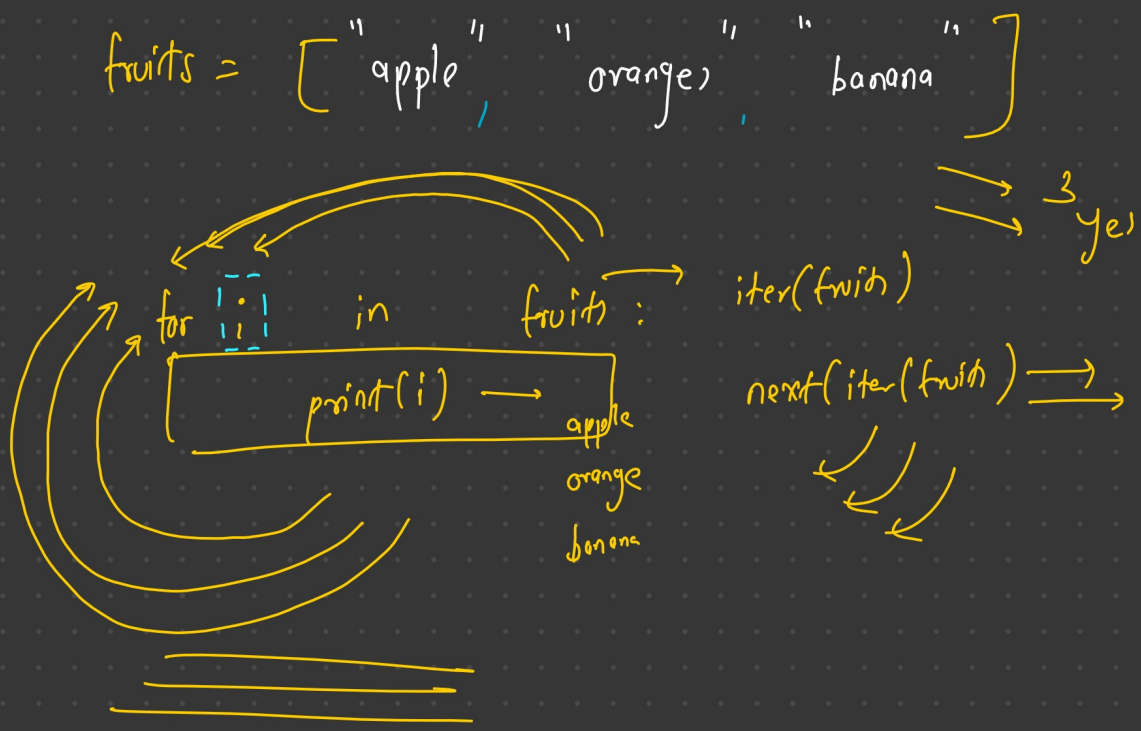
Something → list(), tuple(), dictionary(), sets()

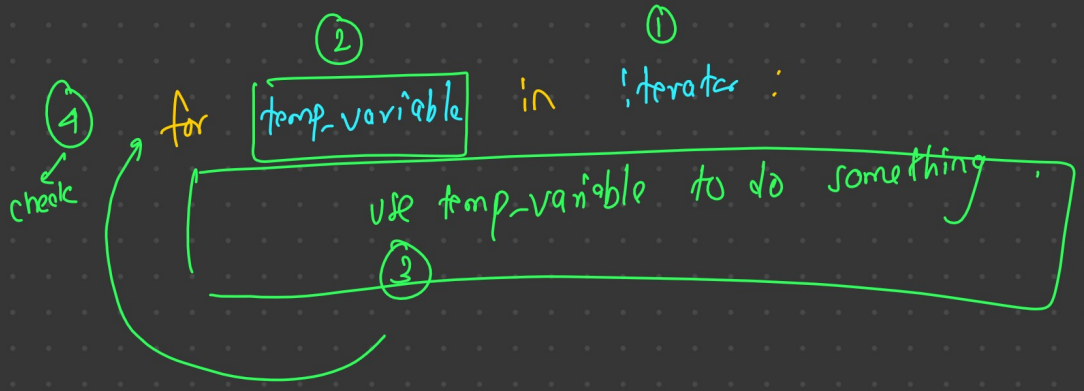
loops:

- a = 2 x 1
  print(a)
- a = 2 x 2
  print(a)

for:

for temp_variable in iterator:





len(table_till) →

→ table_till = [1,2,3,4,5,6,7,8,9,10] →

yes for i in table_till

print(2*i) → 2×1 = 2

2×2 = 4

i=1

i=2

i=10

2×10 = 20

↓ ↓ ↓

a=[1,2,3]

→ 3

→ range( ) - generate sequence of numbers

range(start , stop , step)

start: including
stop: excluding
step: default 1

1 — 10

① 1, 2, 3, 4 ... 10

② 1, 3, 5, 7 .. 10

2 2 2

range (1 , 11 , 1)

1 2 3 4 5 6

1 1 1

2 , 5

2, 3, 4, ~~5~~

1 - 3 - 5 - 7

2 2 2

```
for element in range(1,10,3):
    print(element)
```

start → step → stop

→ 1, 4, 7, 10, 13

10 ↓ X

1
4
7

print statement :

print (" _____) → terminal → output screen

print("Hello")
print("Hi")

\n → new line
\t → tab

Hello → \n

Hi

Hello
Hi

```
print("hello", "hi", 1,2, end="")
print("hi")
print("hi")
```

completed — completed

hello_hi_1_2hi
hi

---

problem statement

```
*          1
* *        2
* * *      3
* * * *    4
* * * * *  5
```

1
2
3
4
5

```
for i in range(1,6):
```
range(6)

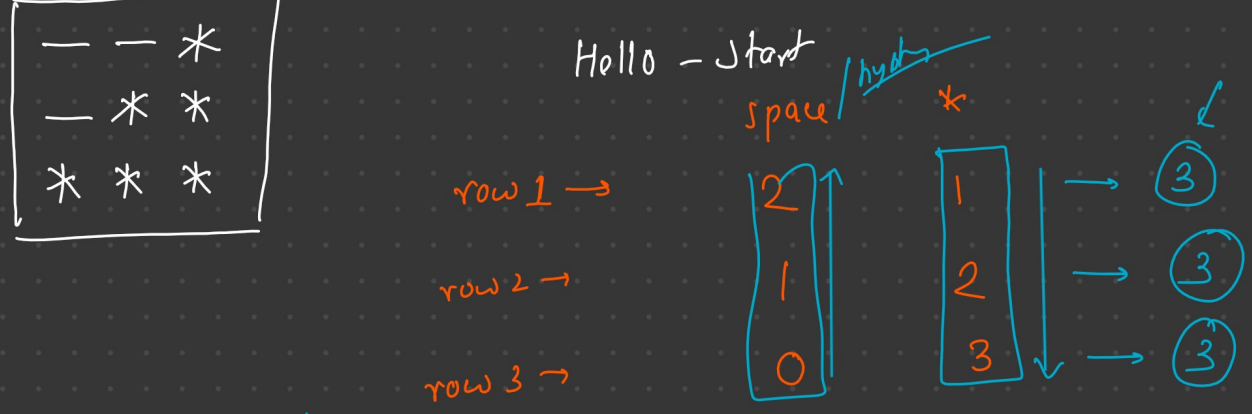
print(i) — 1 * * *
→ 2
→ 3
→ 4
→ 5

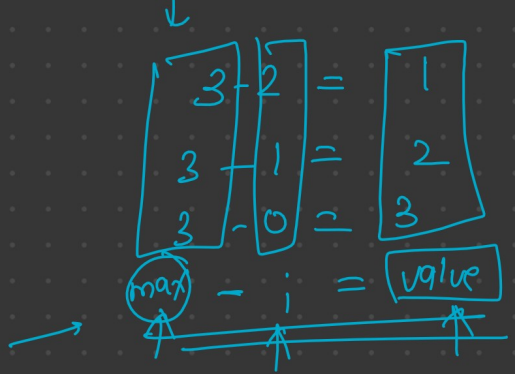
```
  * *
* * *
```

Hello - start

space / hyphen / *

row 1 →
row 2 →
row 3 →



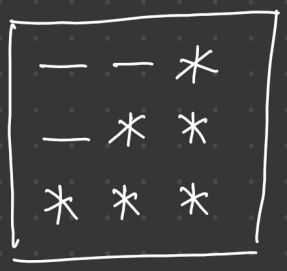


[2, 1, 0]

range(2, -1, -1)

1, 10, 1

1, 2, 3, 9, 5, 6



row 1 →
row 2 →
row 3 →

	No of dash	No of *	Total
row 1 →	2	1	3
row 2 →	1	2	3
row 3 →	0	3	3
	decrease	increase	constant

$3 - 1 = 2$

$3 - 2 = 1$

→ max − dash = * / max − * = dash

max = 3

row 1 → 2

row 2 → 1

row 3 → 0

```
student_id = 6

for i in range(1, 11):
    if i == student_id:
        continue
    print("Student id : ", i)
```

True

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

itr 1 → 1, No, print()

itr 2 → 2, No, print

itr 3 → 3, No, print()

itr 4 → 4, No, print()

itr 5 → 5, No, print()

itr 6 → 6, Yes, ≡

itr 7 → 7

```
student_ids = [1,6,7,8]

for i in range(1, 11):
    if i in student_ids:
        continue
    print("Student id : ", i)
```

Assignment :1

student_data = { 1: "name"
:
10: "name_10" }

id list of students = [ ]

for

print (list of names consider for attendance)

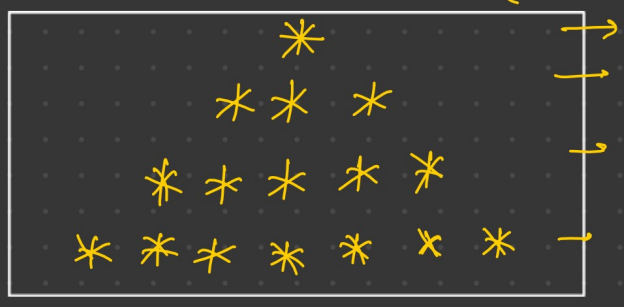
o/p → list

print(a)
↓
type → list

["Manoj", "Vivek"]

o/p

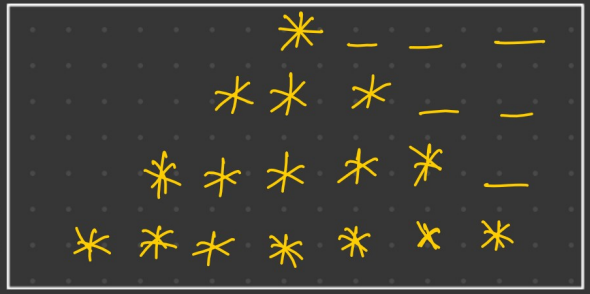
Assignment 2 :



row = 4

5

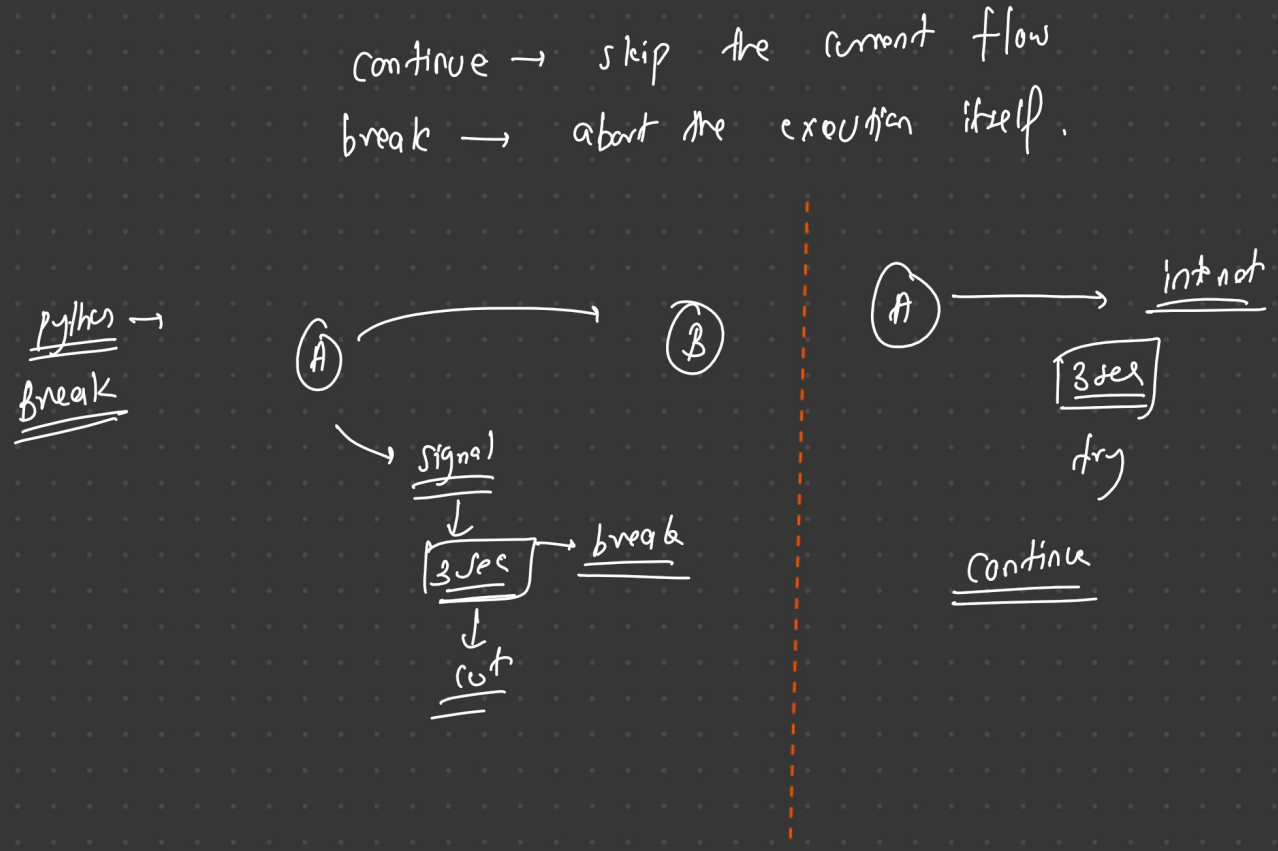
Assignment 3 :



Here sir - Assignment 1

1. Create a register containing a list of 10 names using a Dictionary. Call it Student_Data.
2. The list must include the student ID and their name.
3. Create a list of defaulters using a for loop then print a list of names considered.

NOTE - The output should be a list of names that have been considered for attendance.



Assignment 2:

Write a Python program to create a pyramid pattern using asterisks (*). The pyramid should be centered and consist of n rows based on user input.

Assignment 3:

Modify your solution from Assignment 2 so that the trailing spaces on the right of each row are replaced with underscores (-) instead. The total width of each line should remain the same as in Assignment 2.

Example output for n = 4:

```
  *___
 ***__
*****_
*******
```