

Day-7

10-11-2025

④ Loops :-

- ⇒ A loop in Python is a control structure that allows you to repeat a block of code multiple times until a certain condition is met.
- ⇒ Loops help reduce repetition and make programs more efficient.

- ① for loop
- ② while loop
- ③ nested loops

- for loop inside for loop
- for loop inside while loop
- while loop inside while loop
- while loop inside for loop.

⇒ for loop :-

- ① for loop with range
- ② for loop with condition.

④ For loop with range :-

Initialization

Condition

Increment / decrement Condition

~~#~~ Syntax :-

Range ($i, i < 11, i+1$) ~~#~~ Range (start value, stop value, step size)
default start value : 0
step size : 1

⑤ Program :-

for i in range (1, 5, 1):

 Print (" $i = \underline{\hspace{2cm}}$ ")

 Print ("bye")

⑥ Print numbers from 1 to 20 :-

for i in range (1, 21, 1): ~~#~~ start value ①

 Print (i) .

stop value ②

step size ①

O/P:- 1

2

3

4

.

.

1

* Point Even numbers from 1 to 20:-

for i in range (1, 21, 1): $\#$ values / range Declaration

if ($i \% 2 == 0$): $\#$ to Point even number i.e., Condition

Point (i) $\#$ to Point i value.

* Point odd ~~even~~ numbers from 90 to 100:-

for i in range (90, 101, 1): $\#$ range

if ($i \% 2 != 0$): $\#$ condition for odd number

Point (i) $\#$ to Point (i) (odd number)

* For Loop with Sequence-

for i in sequence-name: ($\#$ i alternative Variable)

statements.

Program :-

Name - "Kiran Soi"

for i in name:

Point (i)

O/P :-

K
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S
o
i