range() Function in Python

- It is used to generate a sequence of numbers.

- It is memory efficient.

- It generates numbers when needed (lazy evaluation)

- That's why it doesn't display all values

- It returns range object.

Syntax:-

range(start, stop, step)

Start → Starting value of the sequence. (included)
default value = 0

Stop → Sequence ends before this value (required, excluded from sequence)

Step → gap between two numbers (optional)
default value → 1

example:-
⟹ range(20)

It is treated as stop value
Here, start = 0
step = 1

∴ It will generate sequence like 0, 1, 2, 3, ..., 18, 19

⇒   range (10, 50)

↑   ↳ Stop value

Start
value

Here   step = 1

It will generate sequence like   10, 11, 12, 13, ···· , 47, 48, 49

⇒   range (10, 50, 4)

↑   ↑   ↳ Step value

Start   Stop
value   value

It will generate sequence like   10, 14, 18, 22, 26, 30, 34, 38, 42, 46

Program 1 :-

```
for x in range(10, 50, 4):
    print(x, end=',')
```

output:-

   10, 14, 18, 22, 26, 30, 34, 38, 42, 46,

Program 2 :-

```
for m in range(30, 10, -5):
    print(m, end=',')
```

Output:-

   30, 25, 20, 15,