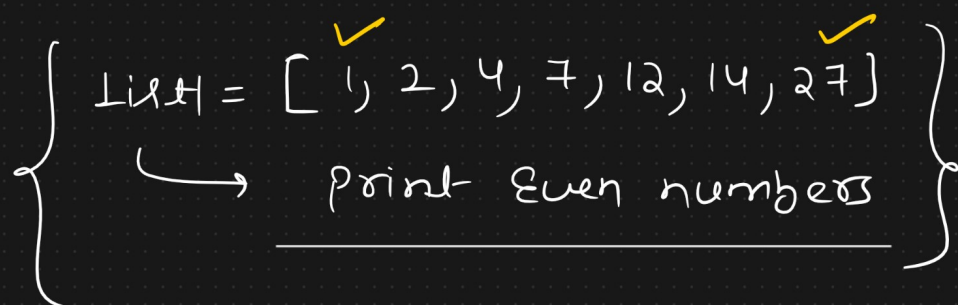
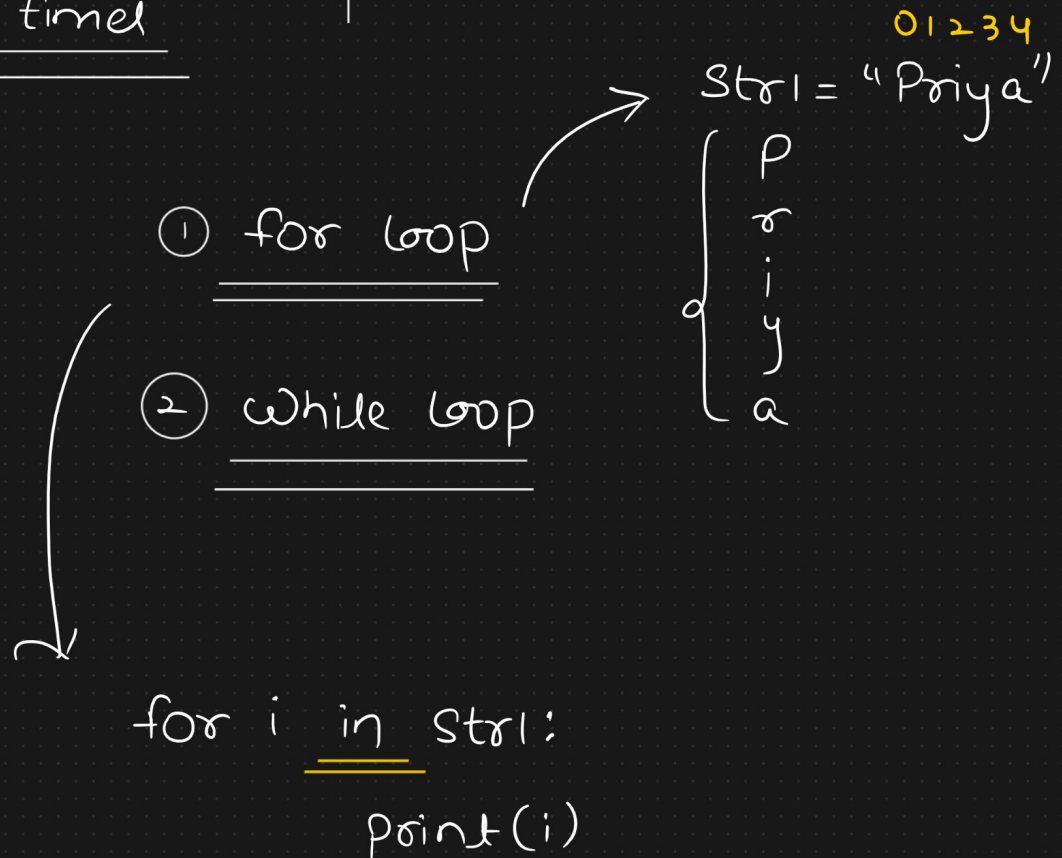
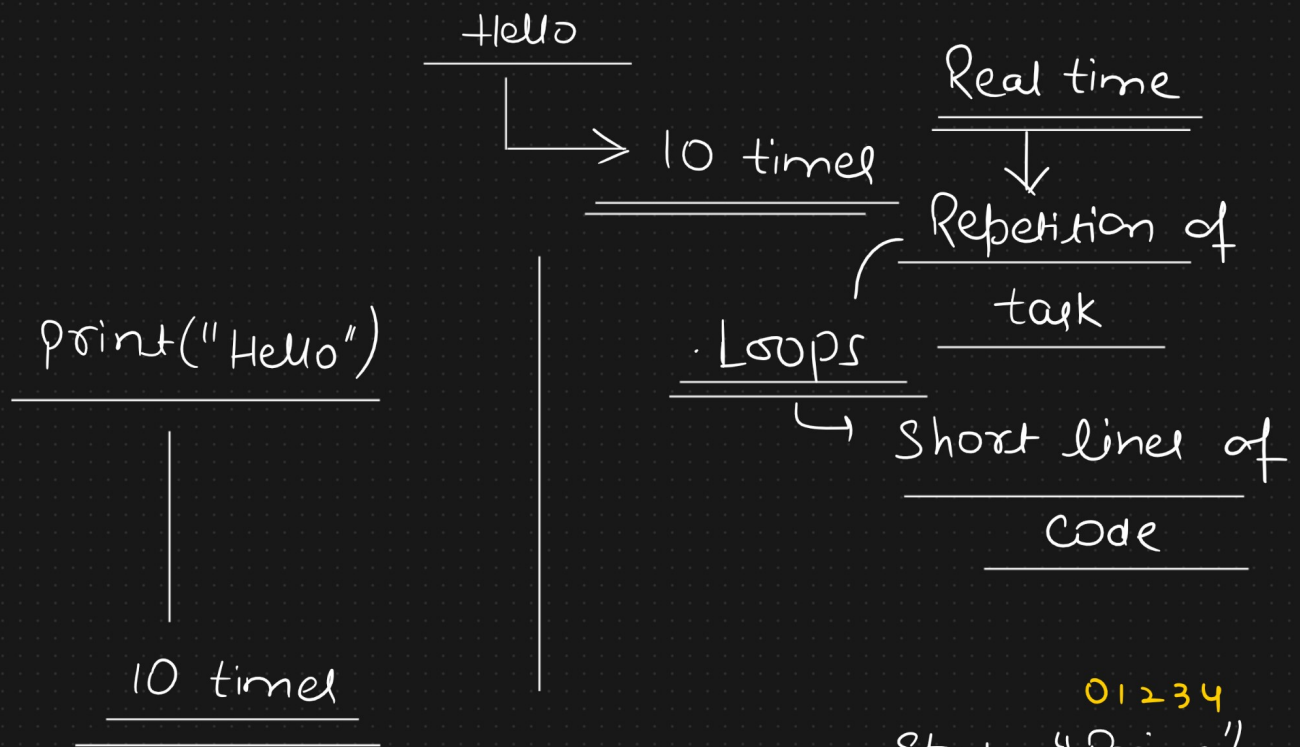


Mastering Python Loops



Why??

for num in list1:

if num % 2 == 0:



Remainder

print(num)

factorial



$$5! = 5 \times 4 \times 3 \times 2 \times 1$$

$$= 120$$

$$\begin{array}{l} \text{num} = \cancel{5} \times \cancel{4} \times \cancel{3} \times \cancel{2} \times \cancel{1} \times 0 \\ \text{factorial} = 1 \times \cancel{5} \times \cancel{4} \times \cancel{3} \times \cancel{2} \times 1 \end{array} \left\{ \begin{array}{l} 0! = 1 \\ 1! = 1 \end{array} \right.$$

True

factorial =
factorial * num

while num > 0:

Loop

$$\text{factorial} \times = \text{num} \quad \text{①}$$

$$\text{num} -= 1 \quad \text{②}$$

120

print(factorial)

2 ¹⁵	7 ¹²	9	12 ⁷	15 ²
0	1	2	3	4
↑	↑	↑	↑	↑
low = 0	low = 1	low = 2	high = 3	high = 4

while (low < high):

← swap(list(low), list(high))

low += 1

high -= 1

print(list)

list(low), list(high) =

list(high), list(low)

2 Pointer approach

0	1	2	3	4
10 ²	4 ⁶	8	4 ⁶	2 ¹⁰

while low < high:

swap(arr(low), arr(high))

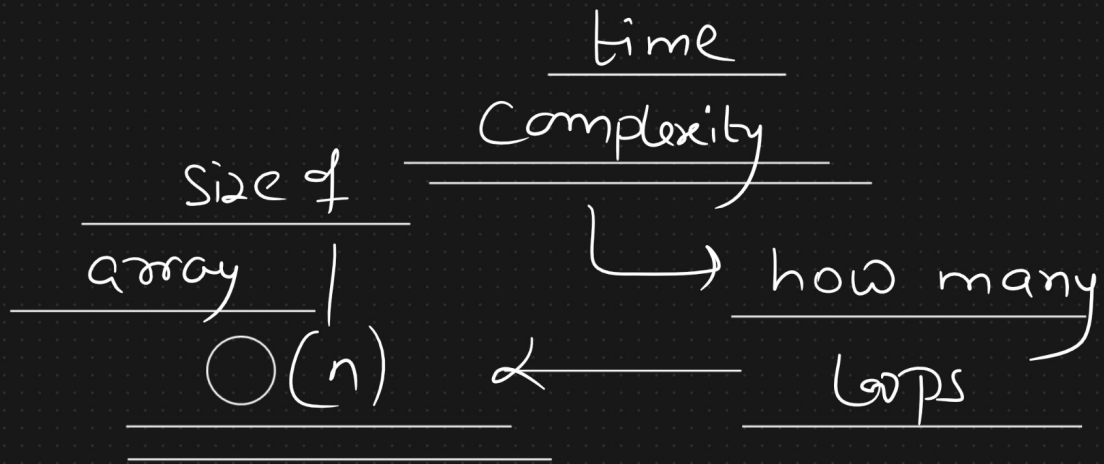
low = low + 1

high = high - 1

low = ~~0~~ 2

high = ~~4~~ 2

print(qr)



- Takeaways
- ① for loop
 - ② while loop
 - ③ for & else we care