Mastering functions in Python

functions

What??

Block of code that performs a specific task

Why??

→ Reusability of the code

Mastering Loops in Python

Logic

Reversal in a List

Using two pointer approach

User-defined function
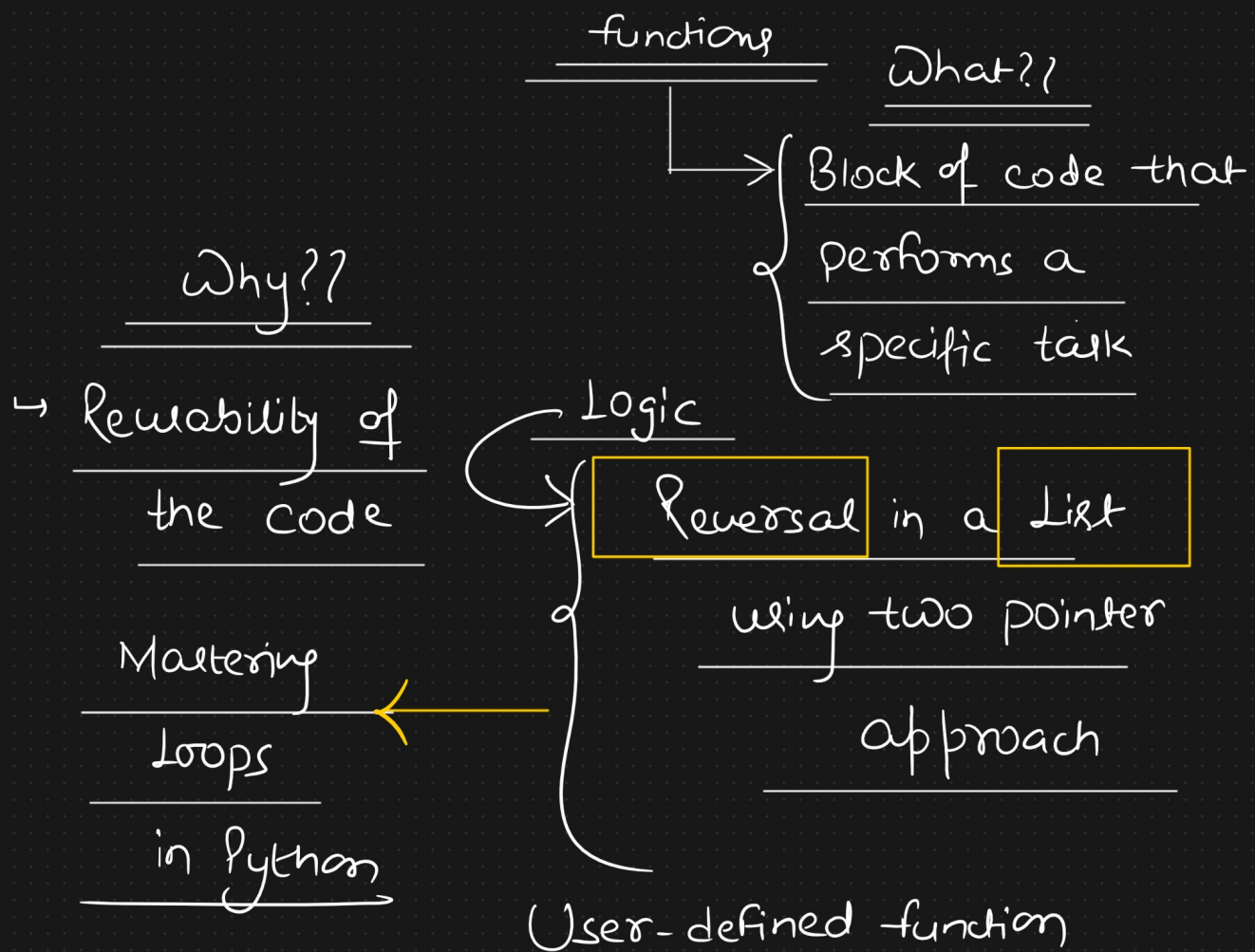
def

Keyword in Python to define a function

function

```
def reverse (list):




    return list1
```

Logic of reversal

Built-in function

type() $\longrightarrow$ datatype of variable

len() $\longleftarrow$ size of list

print() $\longleftarrow$ print the data

& many more

time Complexity = $O(n)$

$low = \cancel{0}\,\overset{2}{1}$

$high = \cancel{4}\,\overset{2}{3}$

$n = 5$

list1 $\longrightarrow$

0	1	2	3	4
$\overset{10}{\cancel{2}}$	$\overset{12}{\cancel{7}}$	9	$\overset{7}{\cancel{12}}$	$\overset{2}{\cancel{10}}$

Reversal $\longrightarrow$

0	1	2	3	4
10	12	9	7	2

```
def reverse(list1):
    while low < high:
        ① swap list1(low) with
                    list1(high)

        ② low += 1

        ③ high -= 1

    return list1
```