

Constructs and Elements

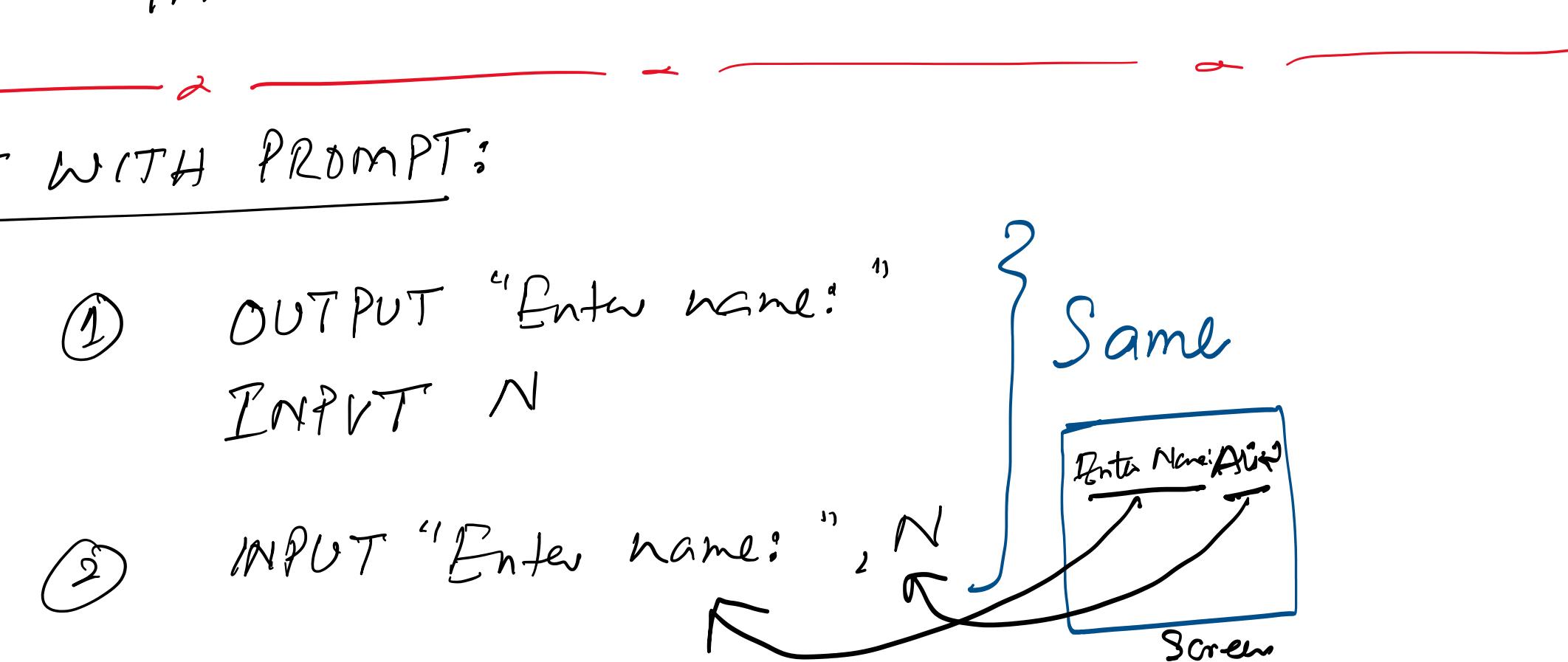
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Keywords:

- INPUT / READ
- OUTPUT / PRINT
- PROMPT
- COUNTING
- TOTALISING
- SUM / ASSIGNMENT
- COUNT BASED LOOPS
- EXTREME VALUES.

INPUT: Collection of data through keyboard in variables. E.g: INPUT x

OUTPUT: Showing data over the screen, either from the variable or other data structure or constants (like strings). Those strings which makes user enter the data from keyboard are output too but called "PROMPT".



INPUT WITH PROMPT:

① OUTPUT "Enter name:"
INPUT N

② INPUT "Enter name:", N

Same

Data Name: Ali

Screen

COUNTING:

Not Counting
as
Not Same
 $x \leftarrow y + 1$

$a \leftarrow a + 1$

$a = a + 1$

$x = x + 1$

$x \leftarrow x + 1$

When variables on the right and left of the assignment operator ($=, \leftarrow$) are same and there is $+1$ operation; it is said to be "Counting".

$a \leftarrow a + 1$ This is not counting \Leftrightarrow
it is not $+1$.

Totalising:

Same
 $a \leftarrow a + b$

$x \leftarrow x + y$

Same

$x \leftarrow y + n$

✓ Assignment

✓ Sum operation

✓ Not totalising

When in an expression variables on the right and left of assignment operator ($=, \leftarrow$) are same and are being added to another variable; it is said to be "Totalising".

Sum / Assignment:

$A = B + C$

When different variables are added and one assigned to a third variable; it is said to be sum or simply assignment.

$B = A + A$, $B = B + 2$, $C = A + 9$,

$x \leftarrow a + 1$

COUNT BASED LOOPS:

"Iteration"

Loop

Iteration

Count Based

FOR ... NEXT

Condition Based

WHILE ... END WHILE

REPEAT ... UNTIL

(cond.)

(cond.)

...

...

...

...

...

...

...

For n ← 1 to 50

OUTPUT "Zafar"

n
1

2

3

4

5

:

50

Next

For Count = 1 to 10

a = a + 1

Next

OUTPUT Highest, Lowest

✓ ✓ ✓ ✓ ✓ ✓

16, 3, 9, 12, 19, 8

| Count | n | Highest | Lowest |
|-------|----|---------|--------|
| 1 | 16 | -1000 | 1000 |
| 2 | 3 | 16 | 16 |
| 3 | 9 | 19 | 3 |
| 4 | 12 | | |
| 5 | 19 | | |
| 6 | 8 | | |

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