Constructs and Elements

Monday, 14 December 2020 6:30 PM

Name: _
Class: _

Prompts.
↓
Enter your name: _

Keywords:
- INPUT
- Prompt
- OUTPUT
- COUNT
- Total
- Sum/Assignment
- COUNT BASED LOOP (FOR...NEXT).
- Extreme Values.

Prompts: phrases or sentences make user enter data.

INPUT: It is an instruction for the computer to take input from keyboard and store in a variable.

OUTPUT "Enter Name: " / PRINT "Enter name: "
INPUT StuName

OUTPUT: It is an instruction to show whatever given.

COUNT:
a ← a + 1
x ← x [+1] — Count

a = a [+1] — Count
x = x [+1] — Count

when variables on left & right of = are same and there is +1 on right side then it is a count expression.

a = b+1 — This not a count because variable on the left of = is not present on the right of =.

a = a+2 — This is not a count because it is not +1.

Total:
A = A [+B] — Totalling.
C ← C [+N]

When variables on both sides of assignment operator (=, ←) are same and there is another variable being added to them, it is called "Totalling".

A = B+C — There is no common variable on the right and left side side of the = operator.
Not Totalling.

Sum: when variables on the left and the right of the = operator and it is an addition
Assignment expression, it is called "Sum".

a = b+c
n ← a+1
x ← b+y

FOR...NEXT (Count Base Loop):

```
FOR n ← 1 to 10
    Print n
NEXT
```

n
1
2

```
For n = 1 to 5
    Print "Zafar"
Next
```

Zafar.
Zafar
Zafar
Zafar
Zafar

```
For i = 1 to 5
    OUTPUT i
Next
```

Extreme Values:

33	45	6	95	2	8	15	25	36
1	2	3	4	5	6	7	8	9

Highest	Lowest	N	i
-1000	1000	33	1
~~33~~	~~33~~		
~~45~~		45	2
	~~6~~		3
95		95	4
	2	2	5
		8	6
		15	7
		25	8
		36	9
			10

Extreme Values Algorithm.

```
Highest ← -1000
Lowest ← 1000
For i = 1 to 9
    INPUT N
    IF N > Highest THEN Highest ← N
    IF N < Lowest THEN Lowest ← N
Next i
OUTPUT Highest
OUTPUT Lowest.
```

Pseudocode	VB.net
INPUT	Console.readline()
OUTPUT	Console.writeline()