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↳ Agenda → Calculator Basic

→ Lists and arrays in python

→ Intro to Online Judges

→ console

→ In python to break a loop in between  
we use

{break} → keyword

We can have nested loops so when we write break,

it breaks the nearest loop always

↳ for taking multiple input in same line, you need to use lists or ~~as~~ you can take the whole input in string & use split function

↳ "12 34 23".split() → default → space

"12" "34" "23"

↳ by default it will split the string based on space character

"12, 34, 3".split(",")

"1"

divide into 2

"    ".split(  )

- we can pass a string
- if we don't pass anything it creates it as " " (space char)
- otherwise whatever we pass ~~as~~ it will split the string on that string

"12#3#4".split("#")

( "12", "3", "4" )



```
13 while True:
14     print(menu)
15     operator = input()
16     print("Please enter two valid inputs to perform ", operator, " operations")
17     a = int(input())
18     b = int(input())
19     if operator == '+':
20         print("Output is ", a+b)
21     elif operator == '-':
22         print("Output is ", a-b)
23     elif operator == '*':
24         print("Output is ", a*b)
25     elif operator == '/':
26         print("Output is ", a/b)
27     elif operator == '**':
28         print("Output is ", a**b)
29     elif operator == '%':
30         print("Output is ", a%b)
31     else:
32         print("Invalid operation!!!")
33
34     print("Do you want to continue ?? If yes then write -> Y/y/Yes/yes")
35     again = input()
36     if not (again == 'Y' or again == 'Yes' or again == 'y' or again == 'yes'):
37         break
38
```

while True: checks the condition → True

for

7

## ↳ Lists in python

[1, 2, 3] [9.8]

lists are alternate to arrays in python

By default the word array means homogenous collection of elements

But lists gives you all the feature of arrays & lists are heterogenous

[1, "sanket", 2.3, ...] → heterogeneous  
[1, 1, 2, 3]

→ How to initialize list in python??

$$x, y, z = 10, 20, 4.5$$

$$x, y, z = [10, 20, 30]$$

↳ Your computer can execute approx  $(10^8)$  operations / instruction per sec.

$$\begin{array}{l} 1 \text{ sec} \rightarrow 10^8 \\ \textcircled{3 \text{ sec}} \rightarrow \underline{\underline{3 \times 10^8}} \end{array}$$

$$\boxed{3 \times 10^8 \approx 10^8}$$