

L4

Intermediate loops

Practice Question [Recap]

Print "FizzBuzz" if i is divisible by 3 and 5.

Print "Fizz" if i is divisible by 3.

Print "Buzz" if I is divisible by 5.

Print i if none of the above conditions are true.

Break and continue

Let's say in fizzbuzz, an extra condition is that for multiples of 4, do nothing. What can be done in this scenario ?

Also if there is a danger number also given, how can we stop the loop at that time ?

Loops Continued

Count the number of digits of a positive number.

$$\begin{array}{r} 4678 \\ \hline 146 \\ 72 \\ 10 \\ 1 \end{array}$$

$$\begin{array}{l} \underline{4678} / 10 \rightarrow (1) \\ \underline{467} / 10 \rightarrow (2) \\ \underline{46} / 10 \rightarrow (3) \\ \underline{4} / 10 \rightarrow (4) \\ \rightarrow 0 \end{array}$$

Loops Continued

A sum of digits of a positive number.

$$\begin{array}{r} 4678 \\ \hline 4678 \end{array} \% 10 = 8$$

$$\begin{array}{r} 467 \\ \hline 467 \end{array} \% 10 = 7$$

$$\begin{array}{r} 46 \\ \hline 46 \end{array} \% 10 = 6$$

$$\begin{array}{r} 4 \\ \hline 4 \end{array} \% 10 = 4$$

Loops Continued

Sum of digits of all numbers from 1 to N.

Loops Continued

For without initialization / condition / updation

Example of printing even numbers from 1 to N using a for loop, but without doing initialization / condition / updation in the loop.

While Loop Question

Get First N numbers that have sum of digits = k

12 ~~3~~

$12 \% 10$
 $= 2$

While Loop Question

32

1. Check whether a number is palindrome or not

$3 \times 10 + 2$

$32 \times 10 + 2 = 322$

madam

→
←

malayalam

→
←

141
→
←

racecar

←

1221

123321

→
←

Practice and Homework Questions

- Check if a given number is a power of 2 or not
 - <https://leetcode.com/problems/power-of-two/>
- Check if a given number is prime or not?
- Print all prime numbers from 1 to N.
- Calculate product of all digits
- Print all factors of a number
- Print first and last digit of a number

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Thank You!

Please practice more questions and examples as above !!