**Day 2 Lab**

1. Write a program to count the sum of digits in

a number

input:123

Output:6

1. Write a program to reverse any input

Input:123

Output:321

1. Write a to check an integer is a palindrome or not. An input is a palindrome when it reads the same forward as backward

Input: 123

Output: no

Input: 111

Output: yes

1. Given a number N and a list A of N numbers. Determine if the number X exists in array A or not and print its position (0- index)

Input N: 3

Input list: 3 0 1

Input x: 0

Output: 1

Another input

Input N: 5

Input list: 1 3 0 4 5

Input X: 10

Output: -1 because there isn’t exists

1. Given a list of numbers, write a program to remove element from a list based on the index

Input N:4

Input list: 1 2 3 4

Input index:2

Output:1 2 4

1. Write a Python program to get a string made of the first 2 and the last 2 chars from a given a string. If the string length is less than 2, return instead the empty string

Input: itiaswan

Output: Itan

1. You are required to enter a word that consists of x and y that denote the number of Zs and Os respectively. The input word is considered similar to word zoo if (2\*x=y). Determine if the entered word is similar to word zoo. For example, words such as zzoooo and zzzoooooo are similar to word zoo but not the words such as zzooo and zzzooooo.

Input: zzzoooooo

Output: yes

Input: zzoo

Output: no

***Bouns:***

AliBaba was a son of a merchant. After his father's death, AliBaba married a poor woman and settled into the trade of a woodcutter. One day, AliBaba was at work collecting and cutting firewood in the forest, when he happened to overhear a group of 4040 thieves visiting their treasure store. The treasure was in a cave. When AliBaba went to the cave he found out that he had to solve a puzzle. The puzzle was very easy. AliBaba was given 44 numbers. His task was to check whether he could get the fourth number by using the arithmetic operators (+,−,×) between the other three numbers. Knowing that an operator can be used only once.

***a□b□c=d***

Sadly, AliBaba was really bad at math and he asked you to help him solve this puzzle.

Input a: 3

Input b: 4

Input c: 5

Input d: 23

Output: yes

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Input a: 1

Input b: 2

Input c: 3

Input d: 1

Output: no