**04/July/2024**

1. Write a Python program to find out what version of Python you are using.
2. Write a Python program to display the current date and time.
3. Write a Python program that calculates the area of a circle based on the radius entered by the user.
4. Write a Python program that accepts the user's first and last name and prints them in reverse order with a space between them.
5. Write a Python program that accepts a sequence of comma-separated numbers from the user and generates a list and a tuple of those numbers.
6. Sample data : 3, 5, 7, 23  
   Output :  
   List : ['3', ' 5', ' 7', ' 23']  
   Tuple : ('3', ' 5', ' 7', ' 23')
7. Write a Python program that accepts a filename from the user and prints the extension of the file.
8. Sample filename : abc.java  
   Output : java
9. Create a simple calculator that does basic arithmetic
10. Write a Python program to calculate the number of days between two dates.
11. Sample dates (user inputs) : (2014, 7, 2), (2014, 7, 11)  
    Expected output : 9 days
12. Write a Python program to get the volume of a sphere with radius six.
13. Write a Python program to calculate the difference between a given number and 17. If the number is greater than 17, return twice the absolute difference.
14. Write a Python program to get a newly-generated string from a given string where "Is" has been added to the front. Return the string unchanged if the given string already begins with "Is".

**10/July/2024**

1. write a program to take a list as input, as well as 2 index values. Then swap those two index values with each other, without using a third list
2. create a dictionary using two lists inputted by user.
3. Input a list from user, and input a number. Count how many times that number occurs in the list and print it. Do not use any API.
4. Write a program that takes a list from the user as input. then concat that list elements to a string and print.
5. Take two lists from user as input. Perform set operations on them ( without using API ) - union, intersection etc.

**24/July/2024**

1 .We are making n stone piles! The first pile has n stones. If n is even, then all piles have an even number of stones. If n is odd, all piles have an odd number of stones. Each pile must more stones than the previous pile but as few as possible. Write a [Python](https://www.w3resource.com/python-exercises/puzzles/index.php) program to find the number of stones in each pile.  
Input: 2  
Output:  
[2, 4]  
Input: 10  
Output:  
[10, 12, 14, 16, 18, 20, 22, 24, 26, 28]  
Input: 3  
Output:  
[3, 5, 7]  
Input: 17  
Output:  
[17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49]

2.  Given a string consisting of whitespace and groups of matched parentheses, write a Python program to split it into groups of perfectly matched parentheses without any whitespace.  
Input:  
( ()) ((()()())) (()) ()  
Output:  
['(())', '((()()()))', '(())', '()']  
Input:  
() (( ( )() ( )) ) ( ())  
Output:  
['()', '((()()()))', '(())']

3. Write a Python program to check whether the given strings are palindromes or not. Return True otherwise False.  
Input:  
['palindrome', 'madamimadam', '', 'foo', 'eyes']  
Output:  
[False, True, True, False, False]

**02/August/2024**

Given an integr n perform the following conditional actions:

If n is odd print Weird

If n is even and in inclusive range of 2 to 5 print Not Weird

If n is even and in the inclusive range 6 to 20 print Weird

If n is even and greater than 20 print Not weird

03/august/2024

1. input two integer and write code to print three lines where:

1. the first line contain contains the sum of two numbers

2. the second line contains the difference of two numbers (first- second)

3. the third line contains the product of two numbers

2. input two integer and write code the logic to print two lines:

1. the first line should contain the result of integer division a // b ex- 3//5 = 0

2. the second line contains the result of float division a/ b ex- 3/5 = 0.6

3. input four integer x,y,z,n where x,y,z are 3d coordinates[x,y,z] and

x+y+z != n

for example -

x = 2

y = 2

z = 2

n = 2

then output should be

[[0, 0, 0], [0, 0, 1], [0, 1, 0], [0, 1, 2], [0, 2, 1], [0, 2, 2]

, [1, 0, 0], [1, 0, 2], [1, 1, 1], [1, 1, 2], [1, 2, 0], [1, 2, 1],

[1, 2, 2], [2, 0, 1], [2, 0, 2], [2, 1, 0], [2, 1, 1], [2, 1, 2],

[2, 2, 0], [2, 2, 1], [2, 2, 2]]

4. consider a list = [] and perform the following operation

1. insert i e: Insert integer e at position i .

2. print : print the list

3. remove e: delete the frst occurence of intger e

4. append e : insert integre e at the end of the list

5.sort : sort the list

6. pop : pop the last element from the list

7.reverse :reverse the list

Initialize your list and read in the value of followed by lines

of commands where each command will be of the types listed above

.Iterate through each command in order and

perform the corresponding operation on your list

example -

input = n = 4

append 1

append 2

insert 3 1

print

output = [1,3,2]

explanation =

- n= 4 four lines to do operation

- append 1 = append 1 to the list

- append 2 = append 2 to the list

-insert 3 1 = insert 3 at index 1

- print = print the list

5. write code in which take an input n and print the square of that number excluding the number

i < n and i \*\* 2

example - n = 3 i

[0,1,4]

6. Given the names and grades for each student in a class of students,

store them in a nested list and print the name(s) of any student(s) having the second lowest grade.

Note: If there are multiple students with the second lowest grade,

order their names alphabetically and print each name on a new line.

input -[["chi",20.0],["beta",50.0],["aplha",50.0]]

output - aplha

beta

Note - take input in each line first name and then in different line marks

for example - harry

23.56

jojo

43.5

7. write code that will read in a dictionary containing key/value

pairs of name:[marks] for a list of students. Print the average

of the marks arrayfor the student name provide,

showing 2 places after the decimal.

input -

no. of students

data---name mark1 mark2

query\_name

the final data form shouls be {"a":[10,20],"b":[40,90]}

8. Given the participants' score sheet for your University Sports Day,

you are required to find the runner-up score.

You are given n scores.

Store them in a list and find the score of the runner-up.

9. you are given a string and your task is to swap cases. in other words,convert all lowercase

letters to uppercase leters and vice versa

10. given an integer n, and n space-separated integres as input ,

cretae a tuple t, of those n integers.then compute and print the result of hash(t).

11. You are given a string. Split the string on a " " (space) delimiter

and join using a - hyphen.

12. You are given the firstname and lastname of a person on two different lines.

Your task is to read them and print the following:

"hello firstname lastname. you just delved into python."

Note - the length of first and last names are each <= 10

13. given an string ,position, character .

change the original character of string

at the given position with the given character

14. a string is given and a substring is given define a function to count and print

how many times has the substring appears in the main string

15. given a string check if it is alphanumeric,alphabet,digits,uppercase,lowercase