**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.

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]