Instructions

* Create separate file for each programs

Programs

1. Write a Python program which accepts a sequence of comma-separated numbers from the user and generates a list and a tuple with those numbers.
   1. Sample data : 3, 5, 7, 23
   2. Output :
   3. List : ['3', ' 5', ' 7', ' 23']
   4. Tuple : ('3', ' 5', ' 7', ' 23')
2. Write a Python program to display the first and last colors from the following list.
   1. color\_list = ["Red","Green","White" ,"Black"]
3. Write a Python program to calculate the number of days between two dates.
   1. Sample dates : (2014, 7, 2), (2014, 7, 11)
4. Write a Python program to get the volume of a sphere with radius 15.
   1. Formula - 4/3 πr​3
5. Write a Python program to get the difference between a given number and 17, if the number is greater than 17 return double the absolute difference.
6. Write a Python program to calculate the sum of three given numbers, if the values are equal then return three times of their sum.
7. Write a Python program to get a string which is n (non-negative integer) copies of a given string.
8. Write a Python program to test whether a passed letter is a vowel or not.
9. Write a Python program to check whether a specified value is contained in a group of values.
   1. Test Data :
   2. 3 -> [1, 5, 8, 3] : True
   3. -1 -> [1, 5, 8, 3] : False
10. Take 3 global dictionaries as follows. Define a function, which takes those 3 dictionaries and concatenate them.
    1. dic1={1:10, 2:20}
    2. dic2={3:30, 4:40}
    3. dic3={5:50,6:60}
    4. Output should be - {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
11. Define a global dictionary. Iterate through it and print the key and value of it separately in the following format.
    1. Key is <key> and Value is <value>
12. Write a Python program to remove the first item from a specified list.
    1. color = ["Red", "Black", "Green", "White", "Orange"]
    2. num = [255,3678,95,158,759,157]
13. Given variables x=30 and y=20, write a Python program to print "30+20=50".
14. Write a Python program to count the number occurrence of a specific character in a string.
15. Write a Python program to display your details like name, age, address in three different lines.
    1. Expected Output
       1. Name : Joseph Moscot
       2. Age : 39
       3. Address : Bohemian Street, Lane 3, Grex County
16. Write a Python program that will accept the base and height of a triangle and compute the area.
17. Write a Python program to print out a set containing all the colors from color\_list\_1 which are not present in color\_list\_2.
    1. Test Data :
       1. color\_list\_1 = set(["White", "Black", "Red"])
       2. color\_list\_2 = set(["Red", "Green"])
       3. Expected Output :
       4. {'Black', 'White'}
18. Write a Python program to print all even numbers from a given numbers list in the same order and stop the printing of any numbers that come after 237 in the sequence.
    1. Sample numbers list :
    2. numbers = [ 386, 462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345, 399, 162, 758, 219, 918, 237, 412, 566, 826, 248, 866, 950, 626, 949, 687, 217, 815, 67, 104, 58, 512, 24, 892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717, 958,743, 527 ]
19. Write a Python program to concatenate all elements in a list into a string and return it.
20. Define a global dictionary. Iterate through that dictionary and print the output in the following format.
    1. Sample Output
       1. a -- 2
       2. x -- 8
       3. z -- 1
21. Create a function which takes a value. Define a global dictionary. The function should be able to display a statement whether the passed value is in the dictionary or not.
22. Write a Python program to sum all the items in a list.
23. Write a Python program to multiply all the items in a list.
24. Write a Python program to count the number of strings in a list where the string length is 2 or more and the first and last character are the same from a given list of strings.
25. Write a Python program to clone or copy a list.
26. Define a global dictionary. Define a function which takes 2 values 1st as key and 2nd as value. The function should add those key values to the global dictionary.
27. d = {7: 2, 9: 4, 4: 3, 2: 1, 0: 0} Sort this dictionary ascending and descending.
28. Define a global empty dictionary. Iterate from 1 till 10 and fill the dictionary with the key as the number and value as the square of that number.
29. Define a global dictionary. Iterate through it and print the key and value of it separately in the following format.
    1. Key is <key> and Value is <value>.

The loop statement should be enough to extract key and value, so don't

use the "get" method or [] to extract the value from the dictionary.

1. Define a dictionary, which is having keys as subject name such as maths, sci etc. and marks as values. Sum all the marks. and print the total.
2. students = {'Aex':{'class':'V', 'rolld\_id':2}, 'Puja':{'class':'V',’roll\_id':3}}
   1. Using the above dictionary, print the following output.
      1. Aex
      2. class : V
      3. rolld\_id : 2
      4. Puja
      5. class : V
      6. roll\_id : 3
3. Write a Python program to match key values in two dictionaries.
   1. Sample dictionary: {'key1': 1, 'key2': 3, 'key3': 2}, {'key1': 1, 'key2': 2}
   2. Expected output: key1: 1 is present in both x and y
4. Write a Python program to create a dictionary of keys x, y, and z where each key has as value a list from 11-20, 21-30, and 31-40 respectively. Don’t use

static value for 11-20, 21-30, 31-40. Access the fifth value of each key from the dictionary.

* 1. Expected Output
     1. First
        1. x has value [11, 12, 13, 14, 15, 16, 17, 18, 19]
        2. y has value [21, 22, 23, 24, 25, 26, 27, 28, 29]
        3. z has value [31, 32, 33, 34, 35, 36, 37, 38, 39]
     2. Second
        1. 15
        2. 25
        3. 35

1. Write a Python program to drop empty(None) Items from a given Dictionary.
   1. Original Dictionary - {'c1': 'Red', 'c2': 'Green', 'c3': None}
   2. New Dictionary after dropping empty items: {'c1': 'Red', 'c2': 'Green'}
2. Write a Python program to filter the height and width of students, which are stored in a dictionary. Height >= 6ft and Weight>= 70kg:
   1. Original Dictionary: {'Cierra Vega': (6.2, 70), 'Alden Cantrell': (5.9,

65), 'Kierra Gentry': (6.0, 68), 'Pierre Cox': (5.8, 66)}

* 1. Output : {'Cierra Vega': (6.2, 70)}

1. Write a Python program to check if all values are the same in a dictionary.
   1. Original Dictionary:{'Cierra Vega': 23, 'Alden Cantrell': 23, 'Kierra

Gentry': 23, 'Pierre Cox': 23}

* 1. Check all are 23 in the dictionary.
     1. True
  2. Check all are 10 in the dictionary.
     1. False

1. Write a program having classes as Product, Order, Customer
   1. Do appropriate inheritance of the above classes
   2. Write appropriate methods / constructors in each classes
   3. Following output is expected
      1. Order No : SO001
      2. Customer : Sanjay Patel
      3. Customer Email : sanjay@dummy.com

1. Name of the product is 'Pencil'
2. Product Qty is : 15
3. Unit Price is 20
4. Order total is : 300

