

Lab Assignment 5

A Gentle Introduction to Python (CCC634)

Max Marks (5 marks = 3 marks (lab evaluation) + 2 marks (Submission on Blackboard))

Deadline: 14-02-2024 (11:55 PM)

1. **A set consists of elements: 18, 6, 40, 1, 25, 3, 10, 5, 55. Take an input from the user which is present in the given set and remove it from the set and then display the resultant set.**

Input:

Original set elements: {18, 6, 40, 1, 25, 3, 10, 5, 55}

Enter the value you want to remove from the given set: 10

Output:

{18, 6, 40, 1, 25, 3, 5, 55}

2. **Create a dictionary and add key-value pairs in it. Take first input from user, the size of the dictionary and second input as key and third input as the value. Using for loop iterate over each key-value pair and print the elements of dictionary found during iteration.**

Input:

Enter dictionary size: 3

Enter key: 1001

Enter value: Rohit

Enter key: 1002

Enter value: Ram

Enter key: 1003

Enter value: Raghav

Output:

1001 -> Rohit

1002 -> Ram

1003 -> Raghav

3. **Write a Python program calculate the product, multiplying all the numbers of a given tuple**

Input

Enter the numbers seperated by space:12 12

output

Original Tuple:('12', '12')

Product - multiplying all the numbers of the said tuple: 144

Input

Enter the numbers separated by space: 12 7

Output

Original Tuple: ('12', '7')

Product - multiplying all the numbers of the said tuple: 84

- 4. Create a program that finds the maximum value and its index in a list using an enumerator.**

- 5. Create a program that merges two dictionaries and displays the result.**

Input:

Enter elements of dictionary 1 (format - key1:value1, key2:value2): "a":1, "b":2

Enter elements of dictionary 2 (format - key1:value1, key2:value2): "c":3, "d":4

Output:

Merged Dictionary: {"a": 1, "b": 2, "c": 3, "d": 4}

- 6. Create a dictionary where the key holds the name of the countries and value indicates the language most spoken in the corresponding country. Take first input as the no. of key value pairs to be added in the dictionary. Write a program to print the content of this dictionary in such a way that the key is sorted in the ascending order.**

Input:

Enter no. of key-value pairs: 2

Enter keys: France

Enter values: French

Enter keys: USA

Enter values: English

Output:

France: French

Spain: Spanish

- 7. Create three dictionaries. For all the three dictionaries, give first input as the size of the dictionary, second input as the key and third input as the value. Write a program to concatenate the content of all these three dictionaries to create a fourth resultant dictionary.**

NOTE: Give distinct key values in all three dictionaries

Input:

Enter dictionary1 size: 2

Enter key: 0

Enter value: 1000

Enter key: 1

Enter value: 2000

Enter dictionary2 size: 2

Enter key: 2

Enter value: 100

Enter key: 3

Enter value: 200

Enter dictionary3 size: 3

Enter key: 4

Enter value: 100

Enter key: 5

Enter value: 200

Enter key: 6

Enter value: 200

Output:

{0:1000, 1:2000, 2:100, 3:200, 4:100, 5:200, 6: 200}

8. **Take different subjects of the current semester studied by the student as an input in a tuple (each separated by comma). We have to find the number of subjects which has been input by the student. In addition, in case if there is any repeated entry, only error message “Error:The subjects entered are repeated” needs to be shown. If the subjects are unique, Display the output pattern like what has shown in test cases.**

Input1:-

Enter comma-separated subjects: english,hindi,science,social science

Output1:-

The subjects assigned in current semester are ('english', 'hindi', 'science', 'social science')

The number of assigned subjects are 4

Input2:-

Enter comma-separated subjects: science,hindi,social,hindi

Output2:-

Error:The subjects entered are repeated

Input3:-

Enter comma-separated subjects: python,maths,coi,dbms

Output3:-

The subjects assigned in current semester are: ('python', 'maths', 'coi', 'dbms')
The number of assigned subjects are: 4