Assignment - Python Data Structures

1. Reverse a given list in Python

   aLsit = [100, 200, 300, 400, 500]

   output:

   [500, 400, 300, 200, 100]

2. Concatenate two lists index-wise

   Given:

   list1 = ["M", "na", "i", "Raj"]
   list2 = ["y", "me", "s", "esh"]

   output:

   ['My', 'name', 'is', 'Rajesh']

3. Merge following two Python dictionaries into one

   dict1 = {'Ten': 10, 'Twenty': 20, 'Thirty': 30}
   dict2 = {'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

   Expected output:

   {'Ten': 10, 'Twenty': 20, 'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

4. Given a Python list, remove all occurrence of 20 from the list

   list1 = [5, 20, 15, 20, 25, 50, 20]

   Output:

   [5, 15, 25, 50]

5. How to remove duplicates from a list of tuples using the list comprehension technique?
   #a list of tuples

   list_of_tuples= [("C#", 1), ("C#", 1), ("C++", 3), ("C++", 3), ("Python", 25), ("Rust", 30)]

   Write the syntax for the above question.

6. Convert list to tuple.
   listelements = ['C#', 'Java', 'Go', 'Rust']
   Write the syntax for the above question.

7. Get the number of items in a set:
   thisset = {"apple", "banana", "cherry"}
   Write the syntax for the above question.

8. Check if "apple" is present in the 'fruits' set using the membership test method.
   fruits = {"apple", "banana", "cherry"}
   Write the syntax for the above question.

9. Use the correct method to add multiple items (more_fruits) to the fruits set.
   fruits = {"apple", "banana", "cherry"}
   more_fruits = ["orange", "mango", "grapes"]
   Hint: Use 'update' method in python

10. Display all the keys with value 200 from the following dictionary.
    sampleDict = {'a': 100, 'b': 200, 'c': 300,'d':200}

This is a Take Home Assignment. Hence, Please solve the assignment for your practice and Knowledge Building , Assignment Solutions will be Released as usual to enhance your learning.