DICTIONARY

1. **Write a python program to print name and marks of students.**
   For e.g.
   Input: Name = [“abc”, “def”] & marks= [89, 98]
   Output: {“student1”: {“Name”: “abc”, “Marks”: 89},
   “student2”: {“Name”: “def”, “Marks”: 98}}

2. **Write a python program to count the frequency in a list using dictionary.**
   For e.g.
   Input: [1, 1, 1, 5, 5, 3, 1, 3, 3, 1, 4, 4, 4, 2, 2, 2, 2]
   Output: {1: 5, 5: 2, 3: 3, 4: 3, 2:4} □ {Number: Count}

3. **Write a python program to reverse the order of dictionary.**
   For e.g.
   The original dictionary: {‘is’: 2, ‘best’: 5, ‘insideaiml’: 4}
   The reversed order dictionary: {“insideaiml”: 4, “best”: 5, “is”: 2}

4. **Write a python program to check prime number from a list, then create a dictionary.**
   For e.g.
   Input: [1, 2, 22, 34, 37, 21, 19, 23]
   Output: {1: “Not a Prime”, 2: “Prime”, 22: “Not a Prime”, 34: “Not a Prime”, 37: “Prime”, 21: “Not a Prime”, 19: “Prime”, 23: “Prime”}

5. **Write a python program to group elements from list and then construct a dictionary.**
   For e.g.
   Input: [4, 6, 6, 4, 2, 2, 4, 8, 5, 8]
   Output: {4: [4, 4, 4], 6: [6, 6], 2: [2, 2], 8: [8,8], 5: [5]}

6. **Write a python program to replace words from Dictionary.**
   For e.g.
   Input: test_str = “INSIDEAIML is the best platform for geeks to learn and earn”
   Replace_dict = {“geeks”: “candidates”}
   Output: “INSIDEAIML is the best platform for candidates to learn and earn

7. **Write a python program to sort the dictionary by its value, if values are same then given priority to keys in alphabetic order.**
   For e.g.
   Input: {“Aman”: 88, “Richa”: 78, “Poonam”: 99, “Moaaz”: 100, “Prithvi”: 99}

Output: {“Moaaz”: 100, “Poonam”: 99, “Prithvi”: 99, “Aman”: 88, “Richa”: 78}

8. **Write a python program to convert nested dictionary into mapped tuple.**
   For e.g.
   Input: {‘insideaiml’: {‘x’: 5, ‘y’: 6, ‘z’: 3}, ‘best’: {‘x’: 8, ‘y’: 3, ‘z’: 5}}
   Output: [(‘x’, (5, 8)), (‘y’, (6, 3)), (‘z’, (3, 5))]

9. **Write a python program to extract value from nested dictionary.**
   For e.g.
   Input : test_dict = {‘insideaiml’ : {“a” : 7, “b” : 9, “c” : 12}, ‘is’ : {“a” : 15, “b” : 19, “c” : 20}, ‘best’ :{“a” : 5, “b” : 10, “c” : 2}} and k = “b”
   Output: [9, 10, 19]

10. Write a Python program to get all possible two-digit letter combinations from a 1-9 digit string.

11. **Write a python program to create a dictionary of top 5 student along with marks.**
    a. **Who got top 5 ranks, in the descending order of marks?**
    b. **Who got least 5 ranks, in the increasing order of marks?**
    c. **Who got marks between >25th percentile <75th percentile, in the increasing order of marks?**

    Students =
    ['student1','student2','student3','student4','student5','student6','student7','student8','student9','student10']

    Marks = [45, 78, 12, 14, 48, 43, 47, 98, 35, 80]