Dictionary Assignment – 2

Note: Dictionary for all question numbers,

fruit_prices = {'apple': 30, 'banana': 10, 'cherry': 25}

Q1: Write a Python program to update the price of 'apple' to 35 and 'banana' to 12 in the given dictionary.

Output: {'apple': 35, 'banana': 12, 'cherry': 25}

Q2: Write a Python program to delete the key 'cherry' from the given dictionary and print the updated dictionary and removed value.

Output: {'apple': 35, 'banana': 12}

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Q3: Write a Python program to remove the last key-value pair from the given dictionary and print the removed pair.

Output: ('banana', 12)

Q4: Write a Python program to create a shallow copy of the given dictionary and name it copied_prices and print both dictionaries.

Q5: Write a Python program to create and print all possible combinations of characters, where each character is taken from a different key of a dictionary.
Example dictionary: {'A': ['x', 'y'], 'B': ['1', '2']}
Expected Output:

x1

x2

y1

y2

Q6: Write a Python program to add values of the same key from a list of dictionaries.

Example list: [{'item': 'pen', 'amount': 100}, {'item': 'pencil', 'amount': 200}, {'item': 'pen', 'amount': 150}]

Expected Output: {'pen': 250, 'pencil': 200}

Q7: Write a Python program to count how many times each letter appears in a given string and store it in a dictionary.

Sample string: 'datascience'

Expected Output: {'d': 1, 'a': 2, 't': 1, 's': 1, 'c': 2, 'i': 1, 'e': 2, 'n': 1}

Q8: Write a Python program to create a dictionary from two lists. If the same value appears for different keys, keep it as a set.

Sample lists: ['Section-A', 'Section-B', 'Section-C', 'Section-D'], [5, 6, 6, 7]

Expected Output: {'Section-A': {5}, 'Section-B': {6}, 'Section-C': {6}, 'Section-D': {7}}

Q9: Write a Python program to group a list of (key, value) pairs into a dictionary where each key maps to a list of values.

Original list: [('apple', 1), ('banana', 2), ('apple', 3), ('banana', 4), ('cherry', 1)]

Expected Output: {'apple': [1, 3], 'banana': [2, 4], 'cherry': [1]}

Q10: Write a Python program to get all values of a specific key from a list of dictionaries.

List of dictionaries: [{'English': 85, 'Hindi': 80}, {'English': 88, 'Hindi': 90}, {'English': 92, 'Hindi': 84}]

Input key: Hindi

Expected Output: [80, 90, 84]

Q11: Write a Python program to find all the keys in a dictionary where the length of the value list is equal to a given number.

Dictionary: {'One': [5], 'Two': [6, 7], 'Three': [7, 8, 9, 10], 'Four': [1], 'Five': [3, 4, 5, 6], 'Six': [2]}

Input: 1

Expected Output: ['One', 'Four', 'Six']

Q12: Write a Python program to find the key with the maximum and minimum value in a dictionary.

Dictionary: {'Alice': 45, 'Bob': 50, 'Charlie': 48, 'Daisy': 42}

Expected Output: ('Bob', 'Daisy')