**Note:**

**1) Make a copy of provided colab link**

**2) Write your code & execute it with the output cell in the colab or notebook**

**3) Share the final submission through  colab link or ipynb file**

**COLAB LINK:** <https://drive.google.com/file/d/1__3KM-G23U52-1Gd1j2MBiyu8pLLozBa/view?usp=drive_link>

**1. Write a python program to extend the existing list b adding the sublists/inner lists**

**Constraints :**

**a. Create a list containing alphabets upto ‘n’ in the way:**

**["a", "b", ["c", ["d", "e", ["f", "g"], "k"], "l"], "m", "n"]**

**b. Add h,i,j after ‘g’ i.e extending the list**

**c. Print the extended list**

**Concepts to be used: Nested Lists, list indexing**

**Sample Input:**

**list = ["a", "b", ["c", ["d", "e", ["f", "g"], "k"], "l"], "m", "n"]**

**Sublist = [‘h’, ‘i’, ‘j’]**

**Sample Ouput:**

**['a', 'b', ['c', ['d', 'e', ['f', 'g', 'h', 'i', 'j'], 'k'], 'l'], 'm', 'n']**

**2. Write a python program to add two new elements to a tuple.**

**Constraints:**

**a. Take the length of tuples from user**

**b. Create a tuple by using tuple() keyword**

**c. Convert tuple to a list**

**d. Add any two elements to the list**

**e. Convert list into tuple and print it**

**Concepts to be used: lists, tuples**

**Input: Enter the elements of the tuple: (4,5,6)**

**Output: The tuple after adding new elements: (4,5,6,7,8)**

**3. Create a dictionary and perform dictionary operations such as adding, updating, deleting the elements.**

**Constraints:**

**a. Create a dictionary containing name and id manually i.e. from user**

**b. Print that dictionary**

**c. Add a key ‘age’ and print it**

**d. Delete a key - ‘id’ and print it**

**e. Update name and print it**

**Concepts to be used: dictionary, loops**

**Sample Input:**

**Enter  number of elements to be in a dictionary: 2**

**key: name**

**value: john**

**key: id**

**value: 10**

**Sample Output:**

**{'name': 'john', 'id': '10'}**

**{'name': 'john', 'id': '10', 'age': 25}**

**{'name': 'john', 'age': 25}**

**{'name': 'Hary', 'age': 25}**