**LAB TASKS**

**TASK 1: PROJECT PRACTICE**

**TASK2: LAB PRACTICALS AND CODING NINJA ASSIGNMENTS**

**LIST OF PRACTICALS**

**Topics: Strings, Tuple and Set**

1. **Write a Python program to replace last value of tuples in a list.**

Sample list: [(10, 20, 40), (40, 50, 60), (70, 80, 90)]

Expected Output: [(10, 20, 100), (40, 50, 100), (70, 80, 100)]

1. **Write a Python program to remove an empty tuple(s) from a list of tuples.**

Sample data: [(), (), ('',), ('a', 'b'), ('a', 'b', 'c'), ('d')]

Expected output: [('',), ('a', 'b'), ('a', 'b', 'c'), 'd']

1. **Write a Python program to check if a specified element presents in a tuple of tuples**.

Original list:

(('Red', 'White', 'Blue'), ('Green', 'Pink', 'Purple'), ('Orange', 'Yellow', 'Lime'))

Check if White present in said tuple of tuples!

True

Check if Olive present in said tuple of tuples!

False

1. **Given a Tuple List, perform sort on basis of total digits in tuple.**

Examples:

Input : test\_list = [(3, 4, 6, 723), (1, 2), (134, 234, 34)]

Output : [(1, 2), (3, 4, 6, 723), (134, 234, 34)]

Explanation : 2 < 6 < 8, sorted by increasing total digits.

Input : test\_list = [(1, 2), (134, 234, 34)]

Output : [(1, 2), (134, 234, 34)]

Explanation : 2 < 8, sorted by increasing total digits.

1. **Write a Program in Python to Find the Differences Between Two Lists Using Sets.**
2. **Python Program to Check if a Given String Is Heterogram or Not**

A string is a heterogram if it has no alphabet that occurs more than once. For example, “ChitkaraUniversity” is not a heterogram. However, “abc def ghi jkl” is a heterogram. You can follow the below steps to check if a given string is a heterogram or not.

• Separate all the alphabets from other any other characters (using list comprehension)

• Convert list of alphabets into set because set has unique elements (using set())

• Check if the length of the set is equal to number of alphabets

• If yes, then string is heterogram otherwise its not