**lab6\_List\_ANP-C7281 and ANP-C7374**

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**1. Write a Python code to get a list, sorted in increasing order by the second element in each tuple from a given list of non-empty tuples.**

**Sample List : [(2, 5), (1, 2), (4, 4), (2, 3), (2, 1)]**

**Expected Result : [(2, 1), (1, 2), (2, 3), (4, 4), (2, 5)]**

**PROGRAM :**

sample\_list = [(2, 5), (1, 2), (4, 4), (2, 3), (2, 1)]

sorted\_list = sorted(sample\_list, key=lambda x: x[1])

print("Expected Result:", sorted\_list)

**OUTPUT :**

Expected Result: [(2, 1), (1, 2), (2, 3), (4, 4), (2, 5)]

**2. Write a Python program to find duplicate values from a list and display those.**

**PROGRAM :**

def find\_duplicates(input\_list):

    seen = set()

    duplicates = set()

    for item in input\_list:

        if item in seen:

            duplicates.add(item)

        else:

            seen.add(item)

    return list(duplicates)

sample\_list = [1, 2, 3, 2, 4, 5, 1, 4, 6]

duplicate\_values = find\_duplicates(sample\_list)

print("Duplicate values:", duplicate\_values)

**OUTPUT :**

Duplicate values: [1, 2, 4]

3. Write a Python program to split a given list into two parts where the length of the first part of the list is given.

Original list: [1, 1, 2, 3, 4, 4, 5, 1]

Length of the first part of the list: 3

Splitted the said list into two parts: ([1, 1, 2], [3, 4, 4, 5, 1])

**PROGRAM :**

def split\_list(input\_list, length):

    return input\_list[:length], input\_list[length:]

original\_list = [1, 1, 2, 3, 4, 4, 5, 1]

length\_first\_part = 3

first\_part, second\_part = split\_list(original\_list, length\_first\_part)

print("Splitted the said list into two parts:", (first\_part, second\_part))

**OUTPUT :**

Splitted the said list into two parts: ([1, 1, 2], [3, 4, 4, 5, 1])