Practical-2

Aim :

1. Create a list named “Subjects” by inserting 10 subjects into it through any loop and create a list “Elective Subjects” with 5 subjects through direct initialization. Extend list “Subject” by another list “Elective Subjects”. Append 3 duplicate subjects into “Subject” list. Find the index of first occurrence of that duplicate value and then remove all the occurrences of that specific subject through loop. Define function remove_range(i1,i2) to remove range of element from i1 to i2 through del keyword and return the resultant list. Pop 5th element after reversing and sorting your list. Count total elements in your list and finally clear the list. Which of the above operations can be performed directly? Which of the above operations cannot be performed directly on Tuple and why? Update and remove specific item from the tuple by converting it into list.

```
print("12002040701067")
def Seperator():
  print("-----------------------------------------------------------------------------------------------------")

Subjects = []
sub = []
Elective_Subjects = ["EG", "DS", "WP", "DM", "WD"]
n = 10
count=1

print("Enter The 10 Subjects Names :-")
for i in range(n):
    a = input("Subject [%d] : "%(count))
    count+=1
    Subjects.insert(i, a)

Seperator()
print("User's Input Subjects:-")
print(Subjects)
Seperator()
print("Adding Elective Subject:-")
Subjects.extend(Elective_Subjects)
print(Subjects)
Seperator()
Subjects.append("EG")
Subjects.append("DS")
Subjects.append("DM")

print("After Appending:-")
print(Subjects)
Seperator()
for i in Subjects:
    if i not in sub:
        sub.append(i)
    else:
        print("Duplicate Subject Found At Index", Subjects.index(i))

Seperator()
print("After Deleting Duplicate Elements:-")
print(sub)
Seperator()
def remove_range(i1, i2):
    del sub[i1:i2+1]
print("Calling Delete Function To Delete Range(5,8):-")
remove_range(5, 8)
print(sub)
Seperator()

print("Printing Reverse List")
sub.sort(reverse=True)
print(sub)
```

```
Seperator()

print("Delete At Index 5:-")
del sub[5]
print(sub)
Seperator()

print("Total Elements In List:-")
print(len(sub))
sub.clear()
Seperator()

print("After Clearing List:-")
print(sub)
Seperator()

Seperator()
print("Update, Remove & Extend Cannot Be Performed Directly On Tuple.")
Seperator()
tup = ("JAVA", "HunaidP")
print(tup)
Seperator()

tup1 = list(tup)
print("Tuple Converted To List!!!")
print(tup1)
Seperator()

print("After Appending:-")
tup1.append("Python")
print(tup1)
Seperator()

print("After Deleting:-")
del tup1[0]
print(tup1)
Seperator()
```

```
12002040701067
Enter The 10 Subjects Names :-
Subject [1] : PC
Subject [2] : CN
Subject [3] : M
Subject [4] : C
Subject [5] : IC
Subject [6] : EW
Subject [7] : DF
Subject [8] : OS
Subject [9] : ES
Subject [10] : CS
--------------------------------------------------------------------------------------------------------
User's Input Subjects:-
['PC', 'CN', 'M', 'C', 'IC', 'EW', 'DF', 'OS', 'ES', 'CS']
--------------------------------------------------------------------------------------------------------
Adding Elective Subject:-
['PC', 'CN', 'M', 'C', 'IC', 'EW', 'DF', 'OS', 'ES', 'CS', 'EG', 'DS', 'WP', 'DM', 'WD']
--------------------------------------------------------------------------------------------------------
After Appending:-
['PC', 'CN', 'M', 'C', 'IC', 'EW', 'DF', 'OS', 'ES', 'CS', 'EG', 'DS', 'WP', 'DM', 'WD', 'EG', 'DS', 'DM']
--------------------------------------------------------------------------------------------------------
Duplicate Subject Found At Index 10
Duplicate Subject Found At Index 11
Duplicate Subject Found At Index 13
--------------------------------------------------------------------------------------------------------
After Deleting Duplicate Elements:-
['PC', 'CN', 'M', 'C', 'IC', 'EW', 'DF', 'OS', 'ES', 'CS', 'EG', 'DS', 'WP', 'DM', 'WD']
--------------------------------------------------------------------------------------------------------
Calling Delete Function To Delete Range(5,8):-
['PC', 'CN', 'M', 'C', 'IC', 'CS', 'EG', 'DS', 'WP', 'DM', 'WD']
--------------------------------------------------------------------------------------------------------
Printing Reverse List
```

```
['WP', 'WD', 'PC', 'M', 'IC', 'EG', 'DS', 'DM', 'CS', 'CN', 'C']
--------------------------------------------------------------------------------------------------------------
Delete At Index 5:-
['WP', 'WD', 'PC', 'M', 'IC', 'DS', 'DM', 'CS', 'CN', 'C']
--------------------------------------------------------------------------------------------------------------
Total Elements In List:-
10
--------------------------------------------------------------------------------------------------------------
After Clearing List:-
[]
--------------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------------
Update, Remove & Extend Cannot Be Performed Directly On Tuple.
--------------------------------------------------------------------------------------------------------------
('JAVA', 'Hunaid')
--------------------------------------------------------------------------------------------------------------
Tuple Converted To List!!!
['JAVA', 'Hunaid']
--------------------------------------------------------------------------------------------------------------
After Appending:-
['JAVA', 'Hunaid', 'Python']
--------------------------------------------------------------------------------------------------------------
After Deleting:-
['Hunaid', 'Python']
--------------------------------------------------------------------------------------------------------------
```