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Roll No.: 51

Assignment No.: 02(2.1)

Assignment Title: Develop programs to learn different types of structures (list, dictionary, tuples) in python

**2.1 List:**

**2.1.1 Create and display list in python**

Student\_Name = ["kalyani", "Tanvi", "Vaishnavi", "Kaveri", "Anjali", "Rina", "Sakshi"]  
  
print(Student\_Name)  
  
for i in range(len(Student\_Name)):  
 print(Student\_Name[i])

**Output:**

['kalyani', 'Tanvi', 'Vaishnavi', 'Kaveri', 'Anjali', 'Rina', 'Sakshi']

kalyani

Tanvi

Vaishnavi

Kaveri

Anjali

Rina

Sakshi

**2.1.2 List Slicing in python**

# Print all items  
print(Student\_Name[:])  
**Output:**

['kalyani', 'Tanvi', 'Vaishnavi', 'Kaveri', 'Anjali', 'Rina', 'Sakshi']

# Print certain range  
print(Student\_Name[3:5])

**Output:**

['Kaveri', 'Anjali']

# print from starting range  
print(Student\_Name[3:])

**Output:**

['Kaveri', 'Anjali', 'Rina', 'Sakshi']

# print upto given range  
print(Student\_Name[:6])

**Output:**

['kalyani', 'Tanvi', 'Vaishnavi', 'Kaveri', 'Anjali', 'Rina']

**2.1.3 Copy List in python**

**1. copy:**

Copy\_Student\_Name = copy.copy(Student\_Name)  
for i in range(len(Copy\_Student\_Name)):  
 print(Copy\_Student\_Name[i])

**Output:**

kalyani

Tanvi

Vaishnavi

Kaveri

Anjali

Rina

Sakshi

**2. deepcopy:**

Deep\_Copy\_Student\_Name = copy.deepcopy(Student\_Name)  
  
for i in range(len(Deep\_Copy\_Student\_Name)):  
 print(Deep\_Copy\_Student\_Name[i])

**Output:**

kalyani

Tanvi

Vaishnavi

Kaveri

Anjali

Rina

Sakshi

**2.1.4. clear:**

Student\_Name.clear()  
print(Student\_Name)

**Output:**[]

**2.1.5. extend:**

Student\_Name = ["kalyani", "Tanvi", "Vaishnavi", "Kaveri", "Anjali", "Rina", "Sakshi"]  
Student\_Name.extend(["Tanvi","Kaveri", "Sakshi"])  
  
for i in range(len(Student\_Name)):  
 print(Student\_Name[i])

**Output:**

kalyani

Tanvi

Vaishnavi

Kaveri

Anjali

Rina

Sakshi

Tanvi

Kaveri

Sakshi

**2.1.6. index:**

print(Student\_Name.index("Rina"))

**Output:**

5

**2.1.7 List Membership in python**

list1 = [1, 2, 3, 4, 5]  
list2 = [6, 7, 8, 9]  
for item in list1:  
 if item in list2:  
 print("overlapping")  
 else:  
 print("not overlapping")

**Output:**

not overlapping

not overlapping

not overlapping

not overlapping

not overlapping

OR

x = int(input("Enter a number: "))  
list = [10, 20, 30, 40, 50]  
  
if (x not in list):  
 print(x, " is NOT present in given list")  
else:  
 print(x, " is present in given list")

**Output:**

Enter a number: 30

30 is present in given list

**2.1.8 List Deletion in python**

Student\_Name = ["kalyani", "Tanvi", "Vaishnavi", "Kaveri", "Anjali", "Rina", "Sakshi"]

del Student\_Name  
print(Student\_Name)

**Output:**

**NameError** Traceback (most recent call last)

Cell **In[21], line 3**

1 Student\_Name = ["kalyani", "Tanvi", "Vaishnavi", "Kaveri", "Anjali", "Rina", "Sakshi"]

2 **del** Student\_Name

**----> 3** print(Student\_Name)

**NameError**: name 'Student\_Name' is not defined

Student\_Name = ["kalyani", "Tanvi", "Vaishnavi", "Kaveri", "Anjali", "Rina", "Sakshi"]  
Student\_Name.remove("Anjali")  
for i in range(len(Student\_Name)):  
 print(Student\_Name[i])

**Output:**

kalyani

Tanvi

Vaishnavi

Kaveri

Rina

Sakshi