

**MANAV RACHNA UNIVERSITY, FARIDABAD**

**Department of Computer Science and Technology**

**Course: B.Tech(CST) Semester:IV Subject: Programming for Problem Solving using Python(CSW208B) Session: 2020-21**

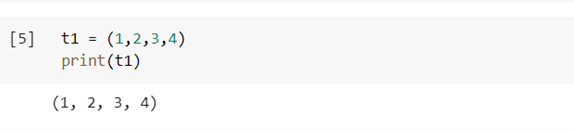
***Lab 4-5:*** *Operation on Tuples and List: hands-on practice*

***Learning Outcome*:** *Student will be able to implement Tuple and List:*

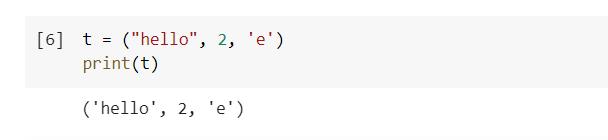
***Blooms Taxonomy Level****: BT1, BT2, BT3*

**Tuple**

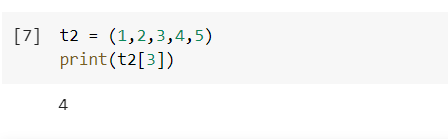
**1.** Write a Python program to create a tuple.  t1= ()



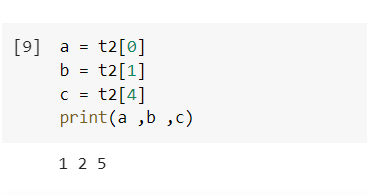
**2.** Write a Python program to create a tuple with different data types.



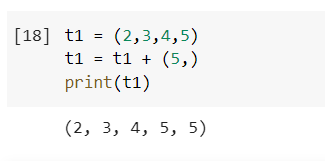
**3.** Write a Python program to create a tuple with numbers and print one item.



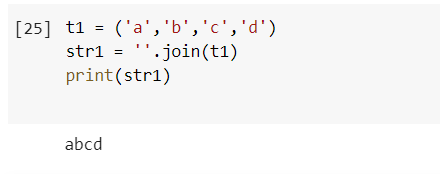
**4.** Write a Python program to unpack a tuple in several variables.



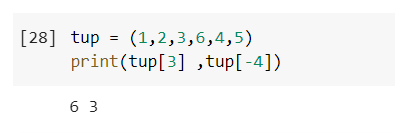
**5.** Write a Python program to add an item in a tuple.



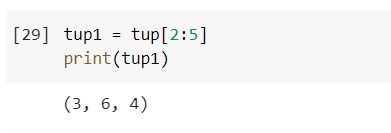
**6.** Write a Python program to convert a tuple to a string.



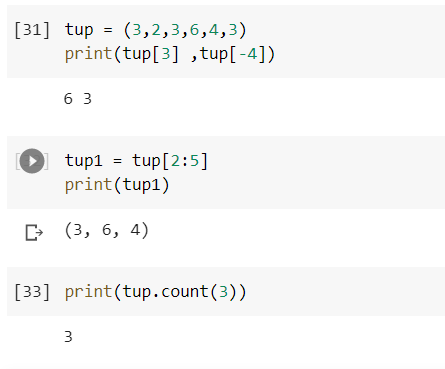
**7.** Write a Python program to get the 4th element and 4th element from last of a tuple



**8.** Write a Python program to create the colon of a tuple.

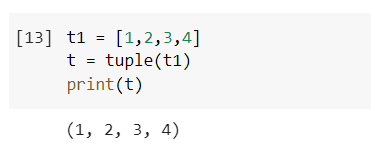


**9.** Write a Python program to find the repeated items of a tuple.

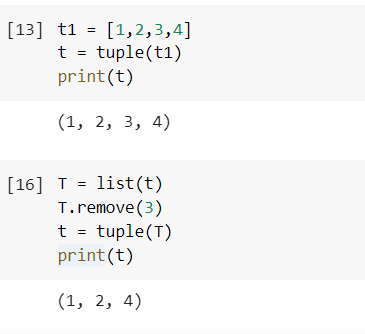


**10.** Write a Python program to check whether an element exists within a tuple.

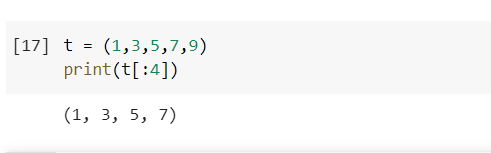
**11.** Write a Python program to convert a list to a tuple.



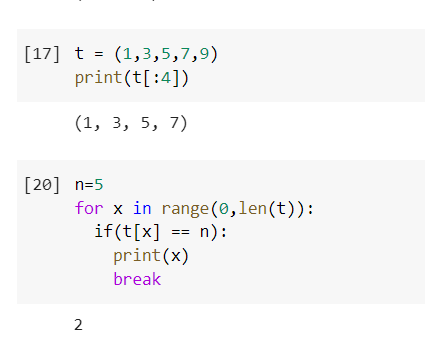
**12.** Write a Python program to remove an item from a tuple.



**13.** Write a Python program to slice a tuple



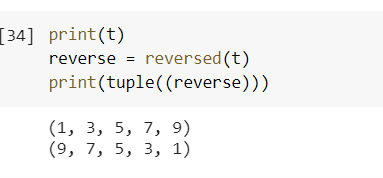
**14.** Write a Python program to find the index of an item of a tuple.



**15.** Write a Python program to find the length of a tuple.

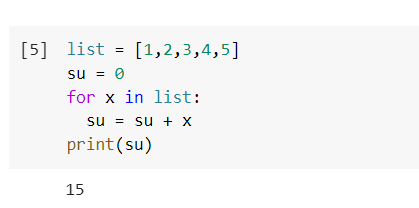


16. Write a Python program to reverse a tuple.

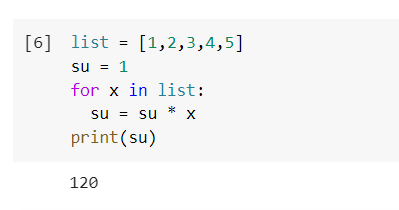


List

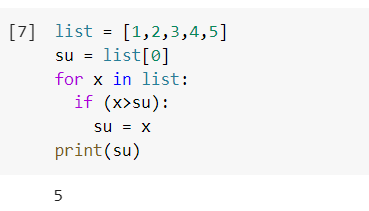
**1.** Write a Python program to sum all the items in a list.



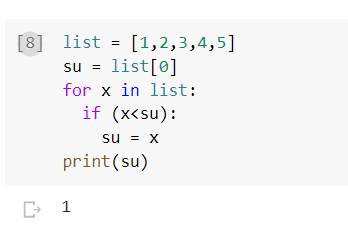
**2.** Write a Python program to multiplies all the items in a list. 



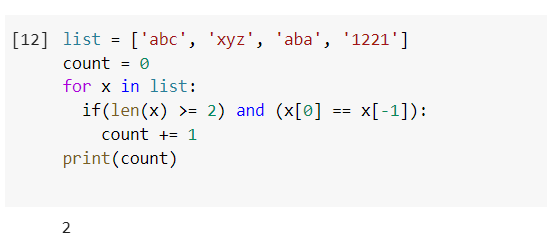
**3.** Write a Python program to get the largest number from a list



**4.** Write a Python program to get the smallest number from a list.



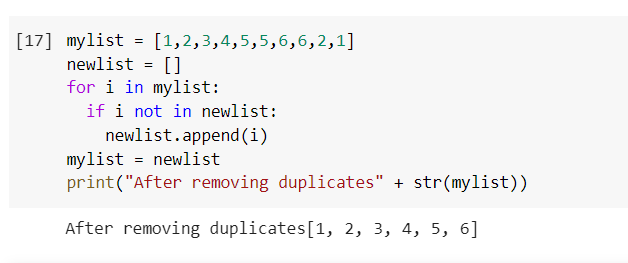
**5.** Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings   
Sample List : ['abc', 'xyz', 'aba', '1221']  
Expected Result : 2



**6.** Write a Python program to get a list, sorted in increasing order by the last 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)]

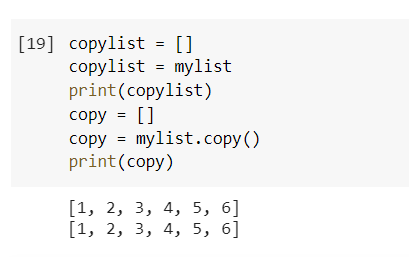
**7.**Write a Python program to remove duplicates from a list.



**8.**Write a Python program to check a list is empty or not.

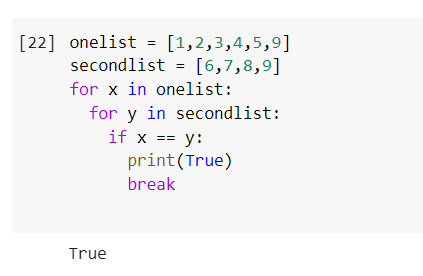


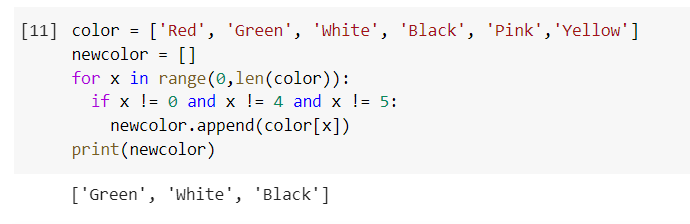
**9.**Write a Python program to clone or copy a list.



**10.**Write a Python program to find the list of words that are longer than n from a given list of words.

**11.**Write a Python function that takes two lists and returns True if they have at least one common member.



**12.**Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.    
Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']  
Expected Output : ['Green', 'White', 'Black']  


**LAB 6**

