

**Python Prac\_Aim2**  
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**Section: C**  
**Batch: C4**

**2. Write a python program to define a tuple of 10 student's information as roll no., name, address and marks of 3 subjects Physics, Chemistry and Mathematics. The list is sorted by roll no. Your program should display list of three toppers in all students.**

```
In [4]: student = [(68, "Gaurav", "Nagpur", 99, 98, 97), (62, "Rahul", "Nagpur", 94, 90, 95), (63, "Watve", "Chandrapur", 86, 87, 98), (37, "Krish", "Butibori", 82, 81, 90), (63, "Vinay", "Nagpur", 94, 95, 96), (66, "Prashant", "Kamptee", 96, 87, 89), (69, "Veer", "Amritsar", 99, 99, 97), (56, "Pratham", "Jaripatka", 76, 73, 88), (50, "Sai", "Ghatgober", 80, 92, 67), (72, "Tejas", "Khamla", 64, 82, 93)]
marks=[]
namelist=[]
for i in range(10):
    avg = (student[i][3]+student[i][4]+student[i][5])/3
    marks.append(avg)
    name = (student[i][1])
    namelist.append(name)
print ("Toppers with there percentage are as follows")
print(sorted(zip(marks,namelist), reverse=True)[:3])

Toppers with there percentage are as follows
[(98.33333333333333, 'Veer'), (98.0, 'Gaurav'), (95.0, 'Vinay')]
```

**3. Python program that displays which letters present in the two strings but not in both**

```
In [14]: s1=input("Enter first string:")
s2=input("Enter second string:")
a=list(set(s1)^set(s2)) print("The letters are:")
for i in a:
    print(i)

Enter first string:Yash Enter
second string:Zode The
letters are:
h
Z
o
e
a
s
d
Y
```

**4.A List rotation consists of taking the first element and moving it to the end. Write a python that takes a list L and a positive integer k and generate the list L after k rotations. If K is not positive, it should return L unchanged.Ip: L= [1,2,3,4,5] After 1st rotation: list become [2,3,4,5,1] After the 2nd rotation list becomes [3,4,5,1,2].....So on Print output after each rotation. Take the value of k from the user.**

```
In [9]: def listrotation(L, k): k=int(input("Enter an integer")) if k<0:
    return L
    A=L
    while(k>0):
        temp=A[0]
        for i in range(len(L)-1):
            A[i]=A[i+1]
            A[i+1]=temp
            k=k-1
        return A k=int(input("Enter an integer:")) for i in range(k+1):
    print(listrotation([1, 2, 3, 4, 5], i))

Enter an integer:1
Enter an integer2 [2,
3, 4, 5, 1]
Enter an integer3
[2, 3, 4, 5, 1]
```

**5. Create a list of tuples, with each tuple having 5 numbers. Perform the addition of 3rd numbers of each tuple**

```
In [10]: my_tuple=[(1, 2, 3, 4, 5), (5, 6, 7, 8, 9), (2, 4, 6, 8, 0), (3, 6, 9, 2, 1), (2, 1, 7, 8, 5)]
a=my_tuple[0][2]
b=my_tuple[1][2]
c=my_tuple[2][2]
d=my_tuple[3][2]
e=my_tuple[4][2]
print(a+b+c+d+e)

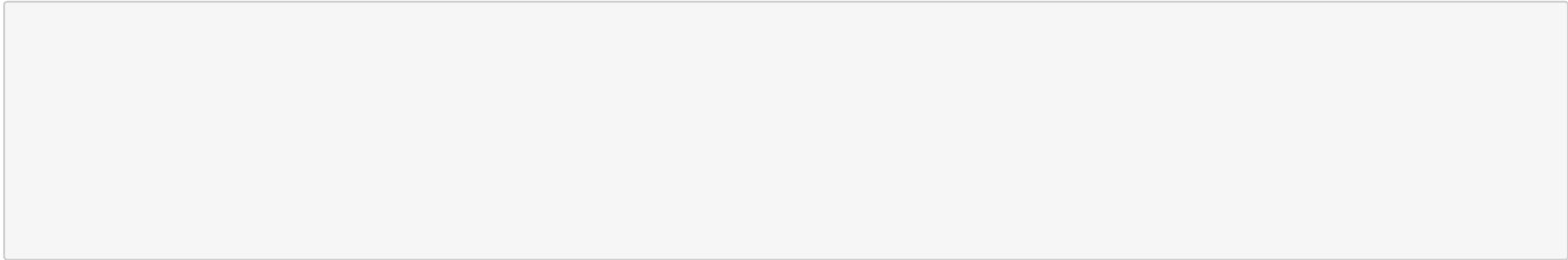
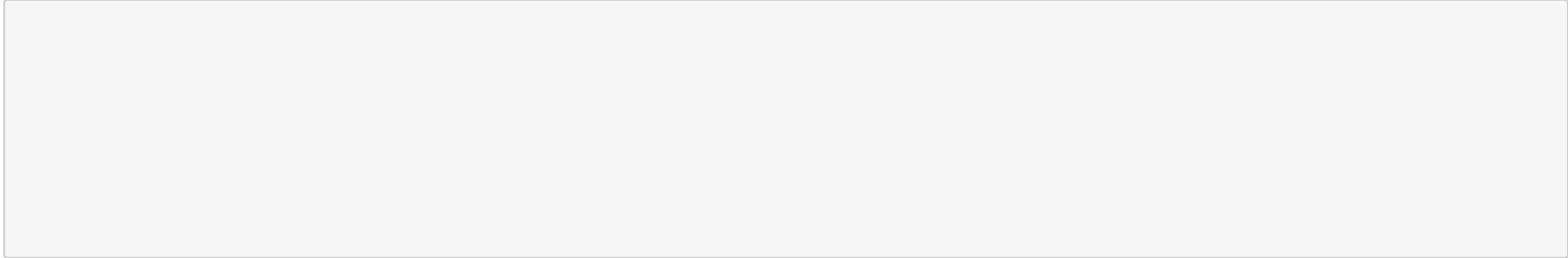
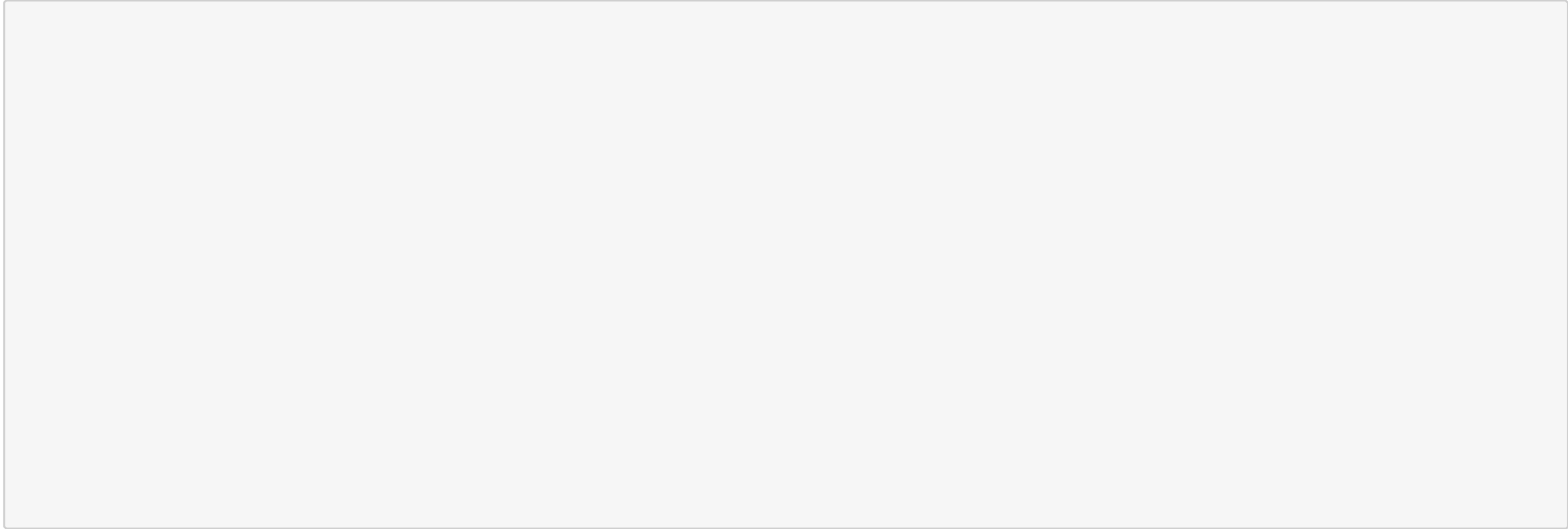
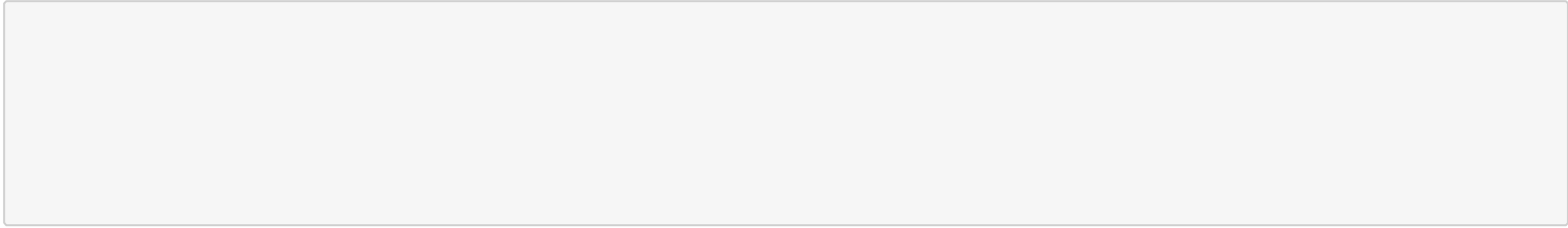
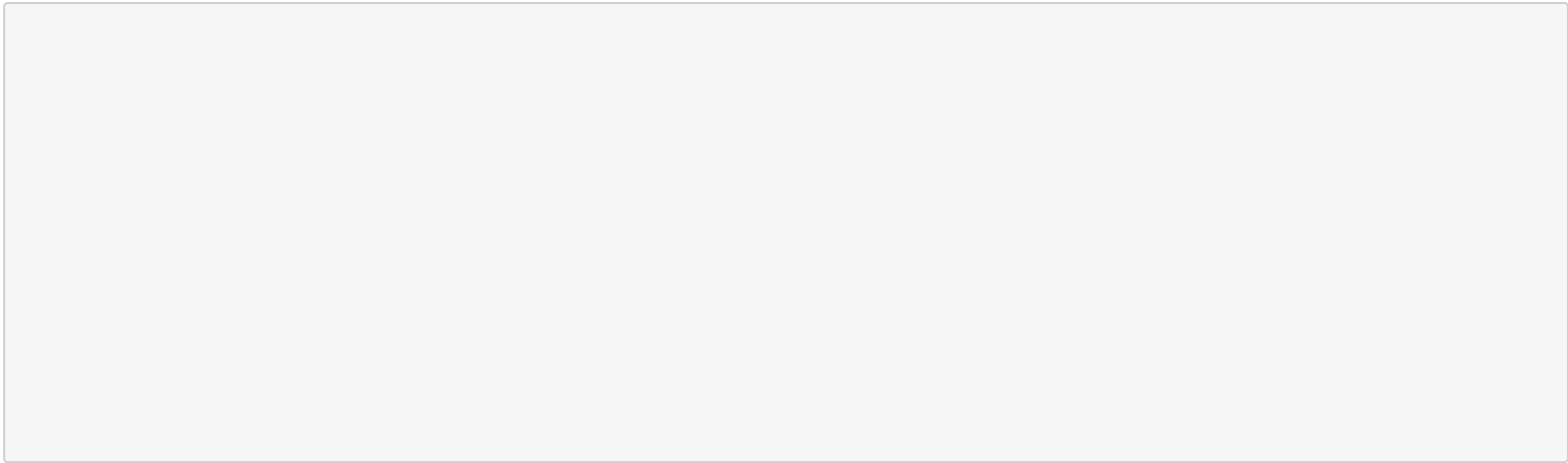
32
```

**6. Write a python program to Convert a long string to a list and print all the words and their frequencies**

```
In [11]: my_string="Hotstar is an Indian brand of subscription video on-demand over-the-top streaming service owned by Star India and operated by Disney Media and Entertainment Distribution, both a division of The Walt Disney Company."
word_list = my_string.split()
print(word_list)
```

word\_freq = [word\_list.count(n) **for** n **in** word\_list]

['Hotstar', 'is', 'an', 'Indian', 'brand', 'of', 'subscription', 'video', 'on-demand', 'over-the-top', 'streaming', 'service', 'owned',  
'by', 'Star', 'India', 'and', 'operated', 'by', 'Disney', 'Media', 'and', 'Entertainment', 'Distribution', 'both', 'a', 'division',  
'of', 'The', 'Walt', 'Disney', 'Company.'] [1, 1, 1, 1, 1, 2, 1, 1, 1, 1, 1, 1, 1, 2, 1, 1, 2, 1, 2, 2, 1, 2, 1, 1, 1, 1, 1, 2, 1, 1,  
2, 1]



```
['Hotstar', 'is', 'an', 'Indian', 'brand', 'of', 'subscription', 'video', 'on-demand', 'over-  
the-top', 'streaming', 'service', 'owned', 'by', 'Star', 'India', 'and', 'operated', 'by', 'D  
isney', 'Media', 'and', 'Entertainment', 'Distribution,', 'both', 'a', 'division', 'of', 'Th e', 'Walt',  
'Disney', 'Company. ']  
[1, 1, 1, 1, 1, 2, 1, 1, 1, 1, 1, 1, 1, 2, 1, 1, 2, 1, 2, 2, 1, 2, 1, 1, 1, 1, 1, 2, 1, 1, 2,  
1]
```

In [ ]: