

Basic List Questions

1) WAP to reverse the list using pop and del.

```
In [1]: 1 l=[1,2,3,4,5,6,7]
        2 l1=[]
        3 for i in range(len(l)):
        4     x=l.pop()
        5     l1.append(x)
        6 print(l1)
        7
```

[7, 6, 5, 4, 3, 2, 1]

2) WAP to print uncommon element of two list.

```
In [2]: 1 l1=[2,3,4,5,9]
        2 l2=[2,3,5,10]
        3 l3=[]
        4 for i in l1:
        5     if i in l2:
        6         l3.append(i)
        7 print(l3)
```

[2, 3, 5]

3) If element of list is even then multiply with 3 otherwise multiply with 5.

l=[1,2,3,4,5,6,7,8,9]

Output: [5, 6, 15, 12, 25, 18, 35, 24, 45]

```
In [3]: 1 l=[1,2,3,4,5,6,7,8,9]
        2 s1=[]
        3 for i in l:
        4     if i%2==0:
        5         s1.append(i*3)
        6     else:
        7         s1.append(i*5)
        8 print(s1)
        9
```

[5, 6, 15, 12, 25, 18, 35, 24, 45]

4) If element is prime of the list then print prime number.

`l=[1,2,3,4,5,6 , 13 , 23 , 50 , 53]`

Output:1 prime 2 prime 3 prime 4 not prime 5 prime 6 not prime 13 prime 23 prime 50 not prime 53 prime

```
In [4]: 1
2 l=[1,2,3,4,5,6 , 13 , 23 , 50 , 53]
3 for j in l:
4     x=0
5     for i in range(1,j+1):
6         if j%i==0:
7             x=x+1
8     if x==2:
9         print(j,"prime")
10    else:
11        print(j,"not prime")

1 not prime
2 prime
3 prime
4 not prime
5 prime
6 not prime
13 not prime
23 prime
50 not prime
53 prime
```

5): Concatenate two lists index-wise.

Given:

`list1 = ["M", "na", "i", "sh"]`

`list2 = ["y", "me", "s", "iva"]`

Expected output:

`['My', 'name', 'is', 'shiva']`

```
In [5]: 1 list1 = ["M", "na", "i", "sh"]
2 list2 = ["y", "me", "s", "iva"]
3
4 lis=[]
5 for i in range(len(list1)):
6     a=list1[i]+list2[i]
7     lis.append(a)
8 print(lis)
9

['My', 'name', 'is', 'shiva']
```

6): Concatenate two lists in the following order.

list1 = ["Hello ", "take "]

list2 = ["Dear", "Sir"]

Expected output:

['Hello Dear', 'Hello Sir', 'take Dear', 'take Sir']

```
In [6]: 1 list1 = ["Hello ", "take "]
2 list2 = ["Dear", "Sir"]
3 list3=[]
4 for i in list1:
5     for j in list2:
6         list3.append(i+j)
7 print(list3)

['Hello Dear', 'Hello Sir', 'take Dear', 'take Sir']
```

7): Add item 7000 after 6000 in the following Python List.

Given:

list1 = [10, 20, [300, 400, [5000, 6000], 500],20,6000, 40]

Expected output:

[10, 20, [300, 400, [5000, 6000, 7000], 500],20,6000,7000, 40]

```
In [7]: 1 val= [10, 20, [300, 400, [5000, 6000], 500],20,6000, 40]
2
3 for i in val:
4     if(type(i)==int):
5         if(i==6000):
6             val.insert(val.index(6000)+1,7000)
7     else:
8         for j in i:
9             if(type(j)==int):
10                if(j==6000):
11                    i.insert(i.index(6000)+1,7000)
12            else:
13                for z in j:
14                    if(type(z)==int):
15                        if(z==6000):
16                            j.insert(j.index(6000)+1,7000)
17
18 val

Out[7]: [10, 20, [300, 400, [5000, 6000, 7000], 500], 20, 6000, 7000, 40]
```

8): Find the sum of the series $2 + 22 + 222 + 2222 + \dots$ n terms.

Given: number_of_terms = 5

So series will become $2 + 22 + 222 + 2222 + 22222$

Expected output:

24690

```
In [7]: 1 val= [10, 20, [300, 400, [5000, 6000], 500],20,6000, 40]
2
3 for i in val:
4     if(type(i)==int):
5         if(i==6000):
6             val.insert(val.index(6000)+1,7000)
7     else:
8         for j in i:
9             if(type(j)==int):
10                if(j==6000):
11                    i.insert(i.index(6000)+1,7000)
12            else:
13                for z in j:
14                    if(type(z)==int):
15                        if(z==6000):
16                            j.insert(j.index(6000)+1,7000)
17
18 val
```

```
Out[7]: [10, 20, [300, 400, [5000, 6000, 7000], 500], 20, 6000, 7000, 40]
```