

1. What is a list? How is it different from a string?
2. Following are the statements for creating a list, find the errors if any in the following statements and rewrite the same after correcting them.
 - a. `L1=1,6,A,8`
 - b. `L2=(34) L1=[[0,1,2,3] ['MY','BOOK']]`
 - c. `L1=[[0,1,2,3],[4,5,6]]`
 - d. `L1=['a','b','c'[1,2,3,A]]`
 - e. `L1=[ARUNA,YAMUNA,JANVI]`
3. Suppose `L=['abc',[6,7,8],3,'mouse']` answer the following:
 - a. `L[3:]`
 - b. `L[:2]`
 - c. `L[1:2]`
 - d. `L[1][1]`
 - e. `L[3:]`
4. Write the most appropriate list method to perform the following tasks
 - a. Delete a given element from the list
 - b. Get the position of an item in the list
 - c. Delete the 3rd element from the list
 - d. Add a single element at the end of the list.
 - e. Add an element in the beginning of the list
 - f. Add elements in the list at the end of the list'
5. Write the output of the following
 - a. `L=[2,4,5,6,2,3,4,4,7] ; count = L.count(4) ; print(count)`
 - b. `L=[10,45,2,20,30,40] ; L.sort() ; print (L); L.reverse(); print(L)`
 - c. `L=list('powder') ; L.remove('r') ; print(L) ; print(L.pop()) ; del L[1] ; print(L)`
 - d. `L1=[10,20,30,40] ; L1.clear() ; print(L1)`
 - e. `L1=[500,600] ; L2=[35,45] ; L1.append(700) ; L1.extend(L2) ; L1.insert(25,2)
print(L1); print(L1+L2); print(L1); print(L1.index(35)); print(L2*2)`
 - f. `L=[] ; L1=[] ; L2=[]
for i in range (6,10):
 L.append(i)
for i in range (10,4,-2):
 L1.append(i)
for i in range (len(L1)):
 L2.append(L[i]+L1[i])`

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L2.append(len(L)-len(L1))
print(L2)
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g. L=[1,2,3,4,5,6,7,8,9,10]
S=[i for i in L if i%2==0]
print(S)
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h. A=[1,2,3,4]
B=[value*3 for value in A]
print(B)
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i. STR1=list("SNo4")
for i in range(len(STR1)):
    if i==3:
        x=int(i)
        x+=x-3
        STR1[i]=x
    elif STR1[i].islower():
        STR1[i]=STR1[i].upper()
    else:
        STR1[i]=STR1[i]*2
print(STR1)
```

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j. L="neat"
X=""
L1=[]
count=1
for i in L:
    if i in ['a','e','i','o','u']:
        X=X+i.swapcase()
    else:
        if (count%2)!=0:
            X=X+str((len(L[:count])))
        else:
            X=X+i
        count=count+1
print(X)
```

6. Write a function that takes a list L as a parameter, adds 5 in all the odd values and 10 in all the even values of the list L and display it.
7. Write a function UNIQUE(L) to display the unique items and DUPLICATE(L) to display the duplicate items in the given list L = [2,7,1,4,9,5,1,4,3]
8. Write a function WORDCOUNT(S) to return the number of words in the given string.
9. Write a function FREQUENCS(S) to print the frequencies of all the elements of a list.

- 10.** Write a function to display square of an element if it is an integer and change if element is a string.
List is received as argument which contains both numbers & strings.
- 11.** Write a function to shift the negative numbers to left (as second part) and the positive numbers to right (as first part) of the list.

HEEENNA