24th June Task Practise

In [2]:
```
txt = "    abc def ghi    "
txt.lstrip() #Leftstrip
```

Out[2]:
```
'abc def ghi    '
```

In [3]:
```
txt = "    abc def ghi    "
txt.strip()
```

Out[3]:
```
'abc def ghi'
```

using escape char

In [4]:
```
mystr = "My favourite web series is "Stranger Things""
```

```
  Cell In[4], line 1
    mystr = "My favourite web series is "Stranger Things""
                                        ^
SyntaxError: invalid syntax
```

In [6]:
```
mystr = "My favourite web series is \"Stranger Things\""
print(mystr)
```

```
My favourite web series is "Stranger Things"
```

list

In [7]:
```
list1= []
```

In [8]:
```
print(type(list1))
```

```
<class 'list'>
```

In [9]:
```
list2 = [10,30,60]
```

In [10]:
```
list3 = [10.77,30.66,60,89]
```

In [11]:
```
list4 = ['one','two' , "three"]
```

In [12]:
```
list5 = ['Asif', 25 ,[50, 100],[150, 90]] # Nested Lists
list6 = [100, 'Asif', 17.765] # List of mixed data types
list7 = ['Asif', 25 ,[50, 100],[150, 90] , {'John' , 'David'}]
len(list6) #Length of list
```

Out[12]:
```
3
```

In [13]:
```
list2[0]
```

Out[13]:
```
10
```

In [14]:
```
list4[0]
```

Out[14]: 'one'

In [15]:
```
list4[0][0]
```

Out[15]: 'o'

In [16]:
```
list4[-1]
```

Out[16]: 'three'

In [17]:
```
list6[-1]
```

Out[17]: 17.765

list slicing

In [18]:
```
mylist = ['one' , 'two' , 'three' , 'four' , 'five' , 'six' , 'seven' , 'eight']
```

In [19]:
```
mylist [0:3]
```

Out[19]: ['one', 'two', 'three']

In [20]:
```
mylist [2:5]
```

Out[20]: ['three', 'four', 'five']

In [21]:
```
mylist[3:4]
```

Out[21]: ['four']

In [22]:
```
mylist[-3]
```

Out[22]: 'six'

In [23]:
```
mylist[-5]
```

Out[23]: 'four'

In [24]:
```
mylist[-2:]
```

Out[24]: ['seven', 'eight']

In [25]:
```
mylist[:-2]
```

Out[25]: ['one', 'two', 'three', 'four', 'five', 'six']

In [26]:
```
mylist[:]
```

Out[26]: ['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight']

add, remove & change items

In [28]:
```
mylist
```

Out[28]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight']
```

In [29]:
```
mylist.append('nine')
mylist
```

Out[29]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
```

In [30]:
```
mylist.insert(9,'ten')
mylist
```

Out[30]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine', 'ten']
```

In [32]:
```
mylist.insert(1,'ONE')
mylist
```

Out[32]:
```
['one',
 'ONE',
 'two',
 'three',
 'four',
 'five',
 'six',
 'seven',
 'eight',
 'nine',
 'ten']
```

In [33]:
```
mylist.remove('ONE')
mylist
```

Out[33]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine', 'ten']
```

In [34]:
```
mylist.pop()
```

Out[34]:
```
'ten'
```

In [35]:
```
mylist
```

Out[35]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
```

In [36]:
```
mylist.pop(8) #remove item at 8 index loc
mylist
```

Out[36]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight']
```

In [40]:
```
del mylist[6] #del item at 7 index loc
mylist
```

Out[40]:
```
[1, 2, 4, 'four', 'five', 'six']
```

In [41]:
```
mylist[0] = 1
mylist[1] = 2 #change value of the string
mylist[2] = 4
mylist
```

Out[41]:
```
[1, 2, 4, 'four', 'five', 'six']
```

In [42]:
```
mylist.clear()
mylist
```

Out[42]:
```
[]
```

In [43]:
```
del mylist
```

In [44]:
```
mylist
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[44], line 1
----> 1 mylist

NameError: name 'mylist' is not defined
```

Copy list

In [45]:
```
mylist = ['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine'
```

In [46]:
```
mylist1 = mylist
```

In [47]:
```
mylist
```

Out[47]:
```
['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
```

In [48]:
```
id(mylist1), id(mylist)
```

Out[48]:
```
(2150921436800, 2150921436800)
```

In [51]:
```
mylist2 = mylist.copy() #creates copy of the list
```

In [52]:
```
id(mylist2)
```

Out[52]:
```
2150912821056
```

In [53]:
```
mylist[0] = 1
mylist
```

Out[53]:
```
[1, 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
```

In [56]:
```
mylist1  # mylist1 will be also impacted as it is pointing to the same list
```

Out[56]:
```
[1, 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']
```

In [57]:
```
mylist2  # Copy of list won't be impacted due to changes made on the original li
```

Out[57]: ['one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight', 'nine']

Join List

In [58]:
```
list1 = [ 'one', 'two', 'three']
list2 = [ 'four', 'five', 'six' ]
```

In [59]:
```
list3 = list1 + list2
list3
```

Out[59]: ['one', 'two', 'three', 'four', 'five', 'six']

In [67]:
```
list1.clear()
list1
```

Out[67]: []

In [68]:
```
list1 = [ 'one', 'two', 'three']
list1
```

Out[68]: ['one', 'two', 'three']

In [69]:
```
list1.extend(list2)
list1
```

Out[69]: ['one', 'two', 'three', 'four', 'five', 'six']

list membership

In [70]:
```
list1
```

Out[70]: ['one', 'two', 'three', 'four', 'five', 'six']

In [71]:
```
'one' in list1
```

Out[71]: True

In [72]:
```
'eight' in list1
```

Out[72]: False

In [73]:
```
'seven' not in list1
```

Out[73]: True

In [74]:
```
if 'three' in list1:
    print('Three is in the list')
else:
    print('Three is not in the list')
```

```
Three is in the list
```

In [75]:
```
if 'eleven' in list1:
    print('eleven is in the list')
else:
    print('eleven is not in the list')
```

```
eleven is not in the list
```

Reverse & Sort List

In [76]:
```
list1
```

Out[76]:
```
['one', 'two', 'three', 'four', 'five', 'six']
```

In [77]:
```
list1.reverse()
list1
```

Out[77]:
```
['six', 'five', 'four', 'three', 'two', 'one']
```

In [78]:
```
list1 = list1[::-1]
list1
```

Out[78]:
```
['one', 'two', 'three', 'four', 'five', 'six']
```

In [79]:
```
mylist3= [9,5,2,99,12,88,34]
mylist3.sort() # Sort list in ascending order
mylist3
```

Out[79]:
```
[2, 5, 9, 12, 34, 88, 99]
```

In [80]:
```
mylist3 = [9,5,2,99,12,88,34]
mylist3.sort(reverse=True) # Sort list in descending order
mylist3
```

Out[80]:
```
[99, 88, 34, 12, 9, 5, 2]
```

In [81]:
```
mylist4 = [88,65,33,21,11,98]
sorted(mylist4) # Returns a new sorted list and doesn't change original list
```

Out[81]:
```
[11, 21, 33, 65, 88, 98]
```

In [83]:
```
mylist4 #the original list remain unchanged when we use sorted() func
```

Out[83]:
```
[88, 65, 33, 21, 11, 98]
```

loop through the list

In [84]:
```
list1
```

Out[84]:
```
['one', 'two', 'three', 'four', 'five', 'six']
```

In [85]:
```
for i in list1:
    print(i)
```

```
one
two
three
four
five
six
```

In [86]:
```
for i in enumerate(list1):
    print(i)
```

```
(0, 'one')
(1, 'two')
(2, 'three')
(3, 'four')
(4, 'five')
(5, 'six')
```

Count

In [87]:
```
list10 =['one', 'two', 'three', 'four', 'one', 'one', 'two', 'three']
```

In [88]:
```
list10.count('one')
```

Out[88]: 3

In [89]:
```
list10.count('two')
```

Out[89]: 2

In [90]:
```
list10.count('three')
```

Out[90]: 2

In [91]:
```
list10.count('four')
```

Out[91]: 1

All / Any

In [92]:
```
#The all() method returns:

#True - If all elements in a list are true
#False - If any element in a list is false

#The any() function returns True if any element in the list is True. If not, any
```

In [93]:
```
L1 = [1,2,3,4,0]
```

In [94]:
```
all(L1) #returns false if an element present is 0
```

Out[94]: False

In [96]:
```
any(L1)  # Will Return True as we have items in the list with True value
```

Out[96]: True

In [97]:
```
L2 = [1,2,3,4,True,False]
```

In [99]:
```
all(L2) #as there is false word in the list...it returns false
```

Out[99]: False

In [100…
```
any(L2)
```

Out[100… True

In [101…
```
L3=[1,2,3,True]
```

In [102…
```
all(L3)
```

Out[102… True

task completed