List Methods :

Append : we use the append method to add an element to the end of a list

```
In [5]: fruits = ['apple', 'banana', 'cherry']
        fruits.append("orange")

In [6]: fruits

Out[6]: ['apple', 'banana', 'cherry', 'orange']
```

Extend

```
In [32]: fruits = ['apple', 'banana', 'cherry']
         cars = ['Ford', 'BMW', 'Volvo']
         fruits.extend(cars)

In [33]: fruits

Out[33]: ['apple', 'banana', 'cherry', 'Ford', 'BMW', 'Volvo']

In [42]: fruits = ['apple', 'banana', 'cherry']
         points = (1, 4, 5, 9)
         string = "hello"
         fruits.extend(points)

In [43]: fruits

Out[43]: ['apple', 'banana', 'cherry', 1, 4, 5, 9]
```

Insert

```
In [57]: fruits = ['apple', 'banana', 'cherry']
         fruits.insert(1, "orange")
         fruits.insert(1, "strawberry")

In [58]: fruits

Out[58]: ['apple', 'strawberry', 'orange', 'banana', 'cherry']
```

Clear

```
In [3]: fruits = ['apple', 'banana', 'cherry', 'orange']
        fruits.clear()

In [4]: fruits

Out[4]: []
```

Copy

```
In [119]: fruits = ['apple', 'banana', 'cherry', 'orange']
          x = fruits.copy()

In [20]: fruits[2] = 'strawberry'
         fruits

Out[20]: ['apple', 'banana', 'strawberry', 'orange']

In [21]: x

Out[21]: ['apple', 'banana', 'cherry', 'orange']
```

Count

```
In [23]: fruits = ['apple', 'banana', 'cherry','cherry']
         x = fruits.count("cherry")

In [24]: x

Out[24]: 2

In [27]: points = [1, 4, 2, 9, 7, 8, 9, 3, 1, 9, 9]
         x = points.count(9)

In [28]: x

Out[28]: 4
```

Index

```
In [49]: fruits = ['apple', 'banana', 'cherry']
         x = fruits.index("apple")

In [50]: x

Out[50]: 0

In [18]: fruits = [4, 55, 64, 32, 16, 32]
         x = fruits.index(32)

In [19]: x

Out[19]: 3
```

Pop

```
In [59]: fruits = ['apple', 'banana', 'cherry']
         fruits.pop(1)

Out[59]: 'banana'

In [60]: fruits

Out[60]: ['apple', 'cherry']
```

Remove

```
In [61]: fruits = ['apple', 'banana', 'cherry']
         fruits.remove("cherry")

In [62]: fruits

Out[62]: ['apple', 'banana']
```

Reverse

```
In [25]: fruits = ['apple', 'banana', 'cherry']
         fruits.reverse()

In [26]: fruits

Out[26]: ['cherry', 'banana', 'apple']
```

Sort

```
In [92]: fruits = ['cherry', 'apple', 'banana']
         fruits.sort()

In [93]: fruits

Out[93]: ['apple', 'banana', 'cherry']

In [94]: fruits.sort(reverse=True)

In [95]: fruits

Out[95]: ['cherry', 'banana', 'apple']

In [96]: numbers = [2,4,1,9,6,9,7,8,3,1,0]
         numbers.sort()

In [82]: numbers

Out[82]: [0, 1, 1, 2, 3, 4, 6, 7, 8, 9, 9]
```

Practice :

Exercice 1 :

Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.


```
In [3]: color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']
        color = [x for (i,x) in enumerate(color) if i not in (0,4,5)]
        print(color)

['Green', 'White', 'Black']
```

Exercice 2 :

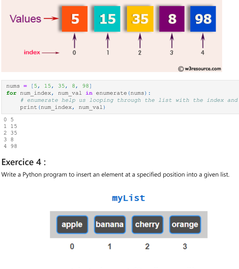
Write a Python program to print the numbers of a specified list after removing even numbers from it.

```
In [7]: num = [7,8, 120, 25, 44, 20, 27]
        num = [x for x in num if x%2!=0]
        print(num)

[7, 25, 27]
```

Exercice 3 :

Write a Python program access the index of a list.




```
In [8]: nums = [5, 15, 35, 8, 98]
        for num_index, num_val in enumerate(nums):
            # enumerate help us looping through the list with the index and its value at THE
            print(num_index, num_val)

0 5
1 15
2 35
3 8
4 98
```

Exercice 4 :

Write a Python program to insert an element at a specified position into a given list.

www.tutorialkart.com

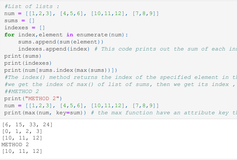
```
In [11]: myList=['apple','banana','cherry','orange']
         print(myList)
         def add_to_position(ilste,position,element):
             liste.insert(position,element)
             return liste

         print(add_to_position(myList,2,"mango"))
         print(add_to_position(myList,5,"watermelon"))

['apple', 'banana', 'cherry', 'orange']
['apple', 'banana', 'mango', 'cherry', 'orange']
['apple', 'banana', 'mango', 'cherry', 'orange', 'watermelon']
```

Exercice 5 :

Write a Python program to find the list in a list of lists whose sum of elements is the highest. Go to the editor Sample lists: [1,2,3], [4,5,6], [10,11,12], [7,8,9] Expected Output: [10, 11, 12]




```
In [22]: #List of lists
         num = [[1,2,3], [4,5,6], [10,11,12], [7,8,9]]
         sums = []
         indexes = []
         for index,element in enumerate(num):
             sums.append(sum(element))
             indexes.append(index) # This code prints out the sum of each inner list of our bi
         print(sums)
         print(indexes)
         print(num[sums.index(max(sums))])
         #The index() method returns the index of the specified element in the list.
         #we get the index of max() of list of sums, then we get its index , and print the elm
         ##METHOD 2:
         print("METHOD 2")
         num = [[1,2,3], [4,5,6], [10,11,12], [7,8,9]]
         print(max(num, key=sum)) # the max function have an attribute key that if its used in

[6, 15, 33, 24]
[0, 1, 2, 3]
[10, 11, 12]
METHOD 2
[10, 11, 12]

In [ ]: print("HAPPY LEARNING GUYS")
        print("CIAM")
```