

Python Programming - 2101CS405

Lab - 5

list

Use Dynamic List

```
In [1]: # creating dynamic Lists Method 1
lst = []
for i in range(3):
    lst.append(int(input("Enter element : ")))
print(lst)
```

```
Enter element : 1
Enter element : 2
Enter element : 3
[1, 2, 3]
```

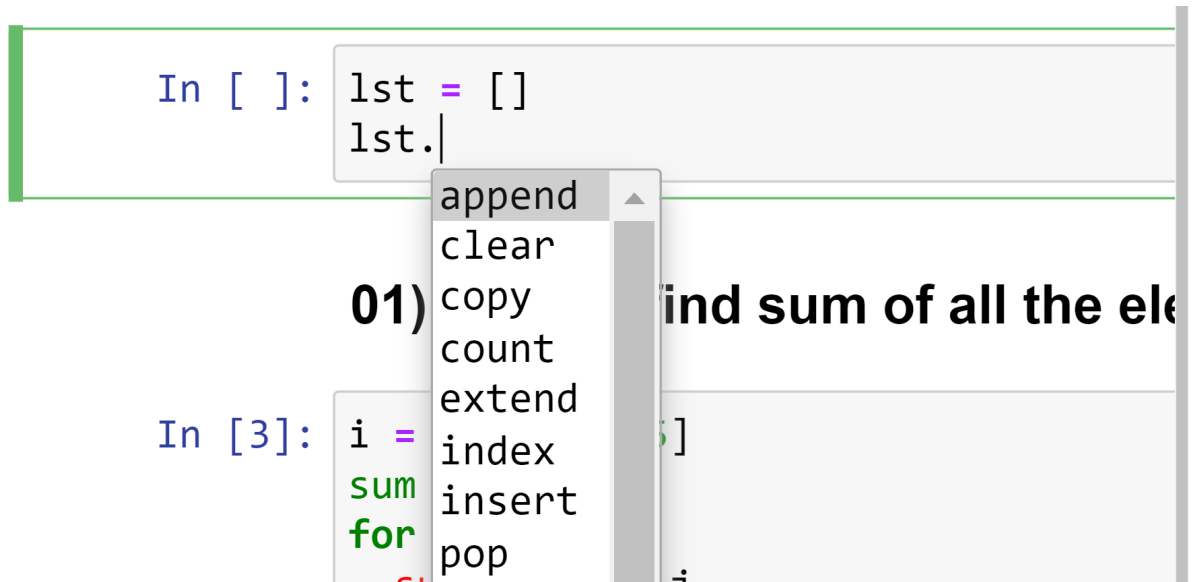
```
In [2]: # creating dynamic Lists Method 2
lst = []
print("Enter -1 to end input")
while True:
    temp = int(input("Enter element : "))
    if temp == -1 :
        break
    else:
        lst.append(temp)
print(lst)
```

```
Enter -1 to end input
Enter element : 1
Enter element : 2
Enter element : 3
Enter element : -1
[1, 2, 3]
```

```
In [ ]: lst = []
lst.      #<-- press tab key 1 or 2 times to get suggestions for all list methods af

st = ''
st.       #<-- press tab key 1 or 2 times to get suggestions for all string methods af

set1 = set()
set1.     #<-- press tab key 1 or 2 times to get suggestions for all set methods afte
#same for all other types
```



```
In [13]: for i in [10, 20, 30, 50, 60]:      # Output : 12 22 32 52 62
          print(i + 2, end=" ")
          print()

          for i in "Tej Patel":              # Output : T,e,j, ,P,a,t,e,l,
              print(i, end=",")
              print()

          for i in (10,5,2):                  # Output : 100 25 4
              print(i*i, end=" ")
              print()
```

```
12 22 32 52 62
T,e,j, ,P,a,t,e,l,
100 25 4
```

01) WAP to find sum of all the elements in List.

In [3]:

```
List : [1, 2, 3, 4, 5]
Sum of numbers is : 15
```

02) WAP to find largest element in a List.

In [11]:

```
List : [5, 10, 2, 1, 44, 4154, 12564, 22, 44, 4]
12564 : is greatest
```

03) WAP to split the List into two and append the first part to the end.

In [10]:

```
List : [1, 2, 3, 4, 5]
[3, 4, 5, 1, 2] OR [4, 5, 1, 2, 3]
```

04) WAP to interchange first and last elements in list entered by a user.

In [12]:

```
List : [1, 2, 3, 4, 5]
New List : [5, 2, 3, 4, 1]
```

05) WAP to interchange the elements on two positions entered by a user.

In [13]:

```
List : [1, 2, 3, 4, 5]
Enter the first index of the list 2
Enter the second index of the list 3
New List is : [1, 2, 4, 3, 5]
```

06) WAP to reverses the list entered by user.

In [14]:

```
List : [1, 2, 4, 3, 5]
New List : [5, 3, 4, 2, 1]
```

07) Python program to remove multiple elements from a list using list comprehension

In [18]:

```
List : [1, 2, 3, 1, 2]
Remove Index List : [1, 2]
New List After Removing Index [1, 1, 2] Removed Elements on index : [1, 2] from original list
```

08) Create a list from the specified start to end index of another list.

In [22]:

```
Enter the start index : 3
Enter the end index : 4
Original List 1 : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
Original List 2 : [10, 9, 8, 7, 6, 5, 4, 3, 2, 1]
New List : [4, 5, 6, 7, 8, 9, 10, 10, 9, 8, 7]
```

09) Input comma separated elements, convert into list and print.

In [23]:

```
string : 5,10,2,1,44,4154,12564,22,44,4 Converted List : ['5', '10', '2', '1', '4', '4', '4154', '12564', '22', '44', '4']
```

01) WAP to count Even and Odd numbers in a List.

In [25]:

```
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
5 : Odd, 5 : Even
```

02) Python program to find N largest and smallest elements from the list

In [27]:

```
your list is : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
Enter how many largest and smallest elements you need : 3
Smallest elemets are => [1, 2, 3]
Largest elemets are => [10, 9, 8]
```

03) WAP to print duplicates from a list of integers

In [33]:

```
List : [5, 10, 2, 1, 4, 5, 22, 44, 4154, 12564, 22, 44, 4]
List of duplicate characters is : [5, 4, 22, 44]
```