

# Python LIST

Lists are data structures used to store multiple elements in a single address variable. Lists are often used to store collections of data, created using square brackets. List items are ordered, changeable, and allow duplicate values. List items are indexed, the first item has index [0], the second item has index [1]

Example 1:

```
# Creating Simple List
```

```
List = [10,20,30,40,50]  
print (List)
```

Example 2 :

```
# List Functions
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```
List = [10,20,30,40,50]  
print (len(List)) # Returns the length of list  
print(type(List)) # Returns the data Type  
print(List[2]) # returns the third element  
print(List[-2]) # returns the second elements from right  
print(List[2:5]) # returns third fourth and fifth element  
print(List[2:]) # returns third till last element  
List[2] = 33 # change the second element
```

```
List[2:5] = [33, 44, 55 ] # change range of elements
List.insert(3, 45) # Insert new element at a position
List.append(99) # insert new element at the end
List1.extend(List2) # Extends List1 with List2
List.remove(99) # remove with element
List.pop() remove last element
List.pop(3) # remove element with position
List.clear() # Empty the list
del List # deletes the list
List1 = ['a', 'c', 'd', 'b']
List1.sort() # sort in ascending
List1.sort(reverse = True)
List1 = List.copy() # Copying one list to another
List3 = List1 + List 2 # Joining List
```