List

```
In [1]:   l = [] #list creation
          l
```

Out[1]:   []

```
In [3]:   l = [10,20,30] #list of integer numbers
          l
```

Out[3]:   [10, 20, 30]

```
In [7]:   l1 = [10.2 , 30.2,19.35] # list of float number
          l
```

Out[7]:   [10.2, 30.2, 19.35]

```
In [21]:  len(l)
```

Out[21]: 3

```
In [25]:  len(l1)
```

Out[25]: 3

```
In [27]:  list[0]
```

Out[27]: 'harshada'

```
In [31]:  del[l2]
```

```
In [35]:  l
```

Out[35]: [10.2, 30.2, 19.35]

```
In [43]:  list = []
          list
```

Out[43]: []

```
In [45]:  list = [10,20,30,40,50]
          list
```

Out[45]: [10, 20, 30, 40, 50]

```
In [49]:  list[0] #reterive first element
```

Out[49]: 10

```
In [51]:  list[-2]
```

Out[51]: 40

```
In [53]: list[-4]
```

```
Out[53]: 20
```

```
In [55]: list[0:3]
```

```
Out[55]: [10, 20, 30]
```

```
In [61]: list[1:-2]
```

```
Out[61]: [20, 30]
```

```
In [63]: list[:3]
```

```
Out[63]: [10, 20, 30]
```

```
In [65]: list[2:]
```

```
Out[65]: [30, 40, 50]
```

```
In [67]: li = [1,2,3,4,5,6,7]
         li
```

```
Out[67]: [1, 2, 3, 4, 5, 6, 7]
```

```
In [71]: li.append(9) # by default value add at a last of list
         li
```

```
Out[71]: [1, 2, 3, 4, 5, 6, 7, 9, 9]
```

```
In [73]: li.append(3)
         li
```

```
Out[73]: [1, 2, 3, 4, 5, 6, 7, 9, 9, 3]
```

```
In [75]: li.insert(2,8) # value always add before the index in list
         li
```

```
Out[75]: [1, 2, 8, 3, 4, 5, 6, 7, 9, 9, 3]
```

```
In [77]: li.insert(4,10)
         li
```

```
Out[77]: [1, 2, 8, 3, 10, 4, 5, 6, 7, 9, 9, 3]
```

```
In [79]: li.remove(9) # remove function remove the value from the list
         li
```

```
Out[79]: [1, 2, 8, 3, 10, 4, 5, 6, 7, 9, 3]
```

```
In [81]: li.remove(6)
         li
```

```
Out[81]: [1, 2, 8, 3, 10, 4, 5, 7, 9, 3]
```

In [85]:
```python
li.pop() #it elimenated last value from the list
li
```

Out[85]: [1, 2, 3, 10, 4, 5, 7, 9]

In [87]:
```python
li1 = []
li1
```

Out[87]: []

In [89]:
```python
li1 = [12,30,40,50]
li1
```

Out[89]: [12, 30, 40, 50]

In [103…
```python
li.clear() #clear all values from the list
li
```

Out[103…   []

In [105…
```python
list1 = []
list1
```

Out[105…   []

In [107…
```python
list1 = [2,3,4,5,6]
list1
```

Out[107… [2, 3, 4, 5, 6]

In [111…
```python
list2 = list1.copy() # copy one list to another list
list2
```

Out[111… [2, 3, 4, 5, 6]

In [115…
```python
list1.extend(list2)# it add the two list . we can use + to add also
list1
```

Out[115… [2, 3, 4, 5, 6, 2, 3, 4, 5, 6]

In [117…
```python
list1.reverse() # it reveerse the list
list1
```

Out[117… [6, 5, 4, 3, 2, 6, 5, 4, 3, 2]

In [121…
```python
list1 = list1[::-2]
list1
```

Out[121… [6, 4, 2, 5, 3]

In [127…
```python
list1.count(2)
list1
```

Out[127… [6, 4, 2, 5, 3]

In [131...

```python
for i in l:
    print(i)
```

```
10.2
30.2
19.35
```

In [133...

```python
for i in list1:
    print(i)
```

```
6
4
2
5
3
```

Project2 : Swapping the numbers

In [147...

```python
a = 5 # using Opertor
b = 6
a = a+b
b = a-b
a = a-b
```

In [149...

```python
a
```

Out[149...

```
6
```

In [145...

```python
b
```

Out[145...

```
5
```

In [171...

```python
a = 20
b = 30
tem = a
a = b
tem = a
```

In [161...

```python
a
```

Out[161...

```
30
```