1,

```python
stulist=['Ram','Chennai',2017]
newlist=stulist+['CS']
print(stulist)
print(newlist)
```

➡ ```
['Ram', 'Chennai', 2017]
['Ram', 'Chennai', 2017, 'CS']
```

2,

```python
stulist = ['Ram','Chennai',2017]
print (stulist[0])
print (stulist[:3])
print (stulist[1:])
print (stulist[1:1])
print (stulist[5:2])
print (stulist[:])
print (stulist[-2:])
print (stulist[1:3])
```

```
Ram
['Ram', 'Chennai', 2017]
['Chennai', 2017]
[]
[]
['Ram', 'Chennai', 2017]
['Chennai', 2017]
['Chennai', 2017]
```

3,

```python
stulist=['Ram','Chennai',2017]
stulist.append('CS')
print('After appending')
print (stulist)
```

```
After appending
['Ram', 'Chennai', 2017, 'CS']
```

4,

```python
stulist=['Ram','Chennai',2017]
dept=['CS']
print("Before Extend:",stulist)
```

```
stulist.extend(dept)
print("After Extend:",stulist)
```

```
    Before Extend: ['Ram', 'Chennai', 2017]
    After Extend: ['Ram', 'Chennai', 2017, 'CS']
```

5,

```
stulist=['Ram','Chennai',2017]
print('Index of Ram:',stulist.index('Ram'))
print('Index of Chennai:',stulist.index('Chennai'))
print('Index of 2017:',stulist.index(2017))
```

```
    Index of Ram: 0
    Index of Chennai: 1
    Index of 2017: 2
```

6,

Insert

```
stulist=['Ram','Chennai',2017]
print('Before insert:',stulist)
stulist.insert(1,'CSE')
print('After insert:',stulist)
```

```
    Before insert: ['Ram', 'Chennai', 2017]
    After insert: ['Ram', 'CSE', 'Chennai', 2017]
```

7,pop

pop

```
stulist=['Ram','Chennai',2017,'CSE',92.7]
print('Initial list is:',stulist)
print('Popping the last item:',stulist.pop())
print('After popping the last item,the list is:',stulist)
```

```
    Initial list is: ['Ram', 'Chennai', 2017, 'CSE', 92.7]
    Popping the last item: 92.7
    After popping the last item,the list is: ['Ram', 'Chennai', 2017, 'CSE']
```

8,pop(index)

pop(index)

```
stulist=['Ram','Chennai',2017,'CSE',92.7]
print('Initial list is:',stulist)
print('Popping an item with index 2:',stulist.pop(2))
#2 is an index of the item to be removed
print('Now the list is:',stulist)
```

```
Initial list is: ['Ram', 'Chennai', 2017, 'CSE', 92.7]
Popping an item with index 2: 2017
Now the list is: ['Ram', 'Chennai', 'CSE', 92.7]
```

9,Remove

```
stulist=['Ram','Chennai',2017,'CSE',92.7,2017]
print('Initial list is:',stulist)
stulist.remove('CSE')
print('After removing CSE from the list:',stulist.remove(2017))
print('After removing 2017 from the list:',stulist)
```

```
Initial list is: ['Ram', 'Chennai', 2017, 'CSE', 92.7, 2017]
After removing CSE from the list: None
After removing 2017 from the list: ['Ram', 'Chennai', 92.7, 2017]
```

10,Reverse

```
stulist=['Ram','Chennai',2017,'CSE',92.7]
print('Initial list is:',stulist.reverse())
print('After reversing, the list is:',stulist)
```

```
Initial list is: None
After reversing, the list is: [92.7, 'CSE', 2017, 'Chennai', 'Ram']
```

11,sort

```
numlist=[6,28,11,4,20,26,13,12]
print('Before sorting:',numlist.sort())
print('After sorting is:',numlist)
```

```
Before sorting: None
After sorting is: [4, 6, 11, 12, 13, 20, 26, 28]
```

12,Mutability

```
stulist=['Ram','Chennai',2017]
print('Before mutation', stulist)
stulist[0]='Priya'
print('After mutation',stulist)
```

```
    Before mutation ['Ram', 'Chennai', 2017]
    After mutation ['Priya', 'Chennai', 2017]
```

Tuples

```
tup1=('C','C++','python',1997,2000)
tup2=(1,2,3,4,5,6,7)
tup3=('a','b','c','d','e')
print("tup1[0]:",tup1[0])
print("tup1[1]:",tup1[1])
print("tup2[1.5]:",tup2[1:5])
print("tup2[1:]:",tup2[1:])
print(tup3[0])
```

```
    tup1[0]: C
    tup1[1]: C++
    tup2[1.5]: (2, 3, 4, 5)
    tup2[1:]: (2, 3, 4, 5, 6, 7)
    a
```

```
nest_tup=("hello",[8,4,6],(1,2,3))#nested index
print(nest_tup[0][4])
print(nest_tup[1][2])
print(nest_tup[2][0])
```

```
    o
    6
    1
```

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