Assignment 4 - List and Tuples 191109007

Ques 1:

In [2]:

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

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

Ques 2:

In [3]:

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

```
[0]:  Ram
[:3]:  ['Ram', 'Chennai', 2017]
[1:]:  ['Chennai', 2017]
[1:1]:  []
[5:2]:  []
[:]:  ['Ram', 'Chennai', 2017]
[-2:]:  ['Chennai', 2017]
[:-2]:  ['Ram']
[1:3]:  ['Chennai', 2017]
```

Ques 3:

In [4]:

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

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

Ques 4:

In [5]:

```
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']
```

Ques 5:

In [6]:

```
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
```

Ques 6 - Insert

In [8]:

```
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]
```

Ques 7 - pop

In [10]:

```
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']
```

Ques 8 - pop(index)

In [18]:

```
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]
```

Ques 9 - remove

In [19]:

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

Ques 10 - reverse

In [21]:

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

```
Initial list is:  ['Ram', 'Chennai', 2017, 'CSE', 92.7]
After reversing, the list is:  [92.7, 'CSE', 2017, 'Chennai', 'Ram']
```

Ques 11 - sort

In [22]:

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

```
Before sorting:  [6, 28, 11, 4, 20, 26, 13, 12]
After sorting is:  [4, 6, 11, 12, 13, 20, 26, 28]
```

Ques 12 - mutability

In [23]:

```
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]
```

Ques 13 - Tuples

In [31]:

```
t1=('C','C++','Phython',1997,2002)
t2=(1,2,3,4,5,6,7)
t3=('a','b','c','d','e')
print("t1[0]: ",t1[0])
print("t1[1]: ",t1[1])
print("t2[1:5]: ",t2[1:5])
print("t2[1:]: ",t2[1:])
print("t3[0]: ",t3[0])
```

```
t1[0]:  C
t1[1]:  C++
t2[1:5]:  (2, 3, 4, 5)
t2[1:]:  (2, 3, 4, 5, 6, 7)
t3[0]:  a
```

Ques 14:

In [33]:

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

```
nest_tup[0][4]:  o
nest_tup[1][2]:  6
nest_tup[2][0]:  1
```

In [ ]:

```

```