In [ ]:
```
Introduction to list datatype:
==============================
Definition: A list is a collection of items defined in a particular order.

Classification:Lists are classified as mutable datatypes(which we can edit or alter)

How to define the list? --> [] ==> by using square brackets.
```

In [3]:
```
Students = ['amritha','soumya','naveen','john', 'indu'] #0,1,2,3,4,5
print(Students)
```

```
['amritha', 'soumya', 'naveen', 'john', 'indu']
```

In [4]:
```
type(Students) #Validate datatype
```

Out[4]:
```
list
```

In [ ]:
```
Introduction to indexing:
=========================
Order in list is maintained by using the concept of indexing.

While defining the list certain numbers will be allocated in the back end.
eg:0,1,2,3...
```

In [5]:
```
#req: want to access naveen name in the output
print(Students[2])
```

```
naveen
```

In [6]:
```
#req: want to access indu name in the output
print(Students[4])
```

```
indu
```

In [ ]:
```
1.How to add new elements to the list

2. How to modify elements in a list

3.How to delete elements in a list
```

In [7]:
```
#req: to add suman to the list

Students.append('suman')
print(Students)
```

```
['amritha', 'soumya', 'naveen', 'john', 'indu', 'suman']
```

In [ ]:
```
#req: to add tharun to the list
```

In [8]:
```
Students.append('tharun')
print(Students)
```

```
['amritha', 'soumya', 'naveen', 'john', 'indu', 'suman', 'tharun']
```

In [ ]:
```
append()===>when ever names are added using this method, names are added to the last
```

In [10]:
```
#req: to add kumar in the 2nd position
```

```
Students.insert(2,'kumar')
print(Students)
```

```
['amritha', 'soumya', 'kumar', 'naveen', 'john', 'indu', 'suman', 'tharun']
```

In [11]:

```
print(Students[2])
```

```
kumar
```

In [ ]:

```
 **Interview question: what is the difference between append and insert method in a list?
append()===>when ever names are added using this method, names are added to the last
insert()===> used to insert names in between on a particular position
```

In [21]:

```
#req: to modify name naveen to naveena
Students[3] = 'naveena'
print(Students)
```

```
['amritha', 'soumya', 'kumar', 'naveena', 'john', 'indu', 'suman', 'tharun']
```

In [22]:

```
#req: to delete indu from the list
del Students[5]
print(Students)
```

```
['amritha', 'soumya', 'kumar', 'naveena', 'john', 'suman', 'tharun']
```

In [ ]:

In [ ]: