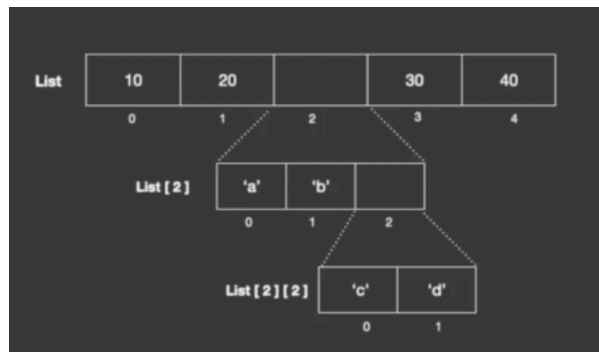


Nested List

- A list can have heterogeneous elements like int , float etc.
- A list can have a list as an element inside it this is called nested list for example

Ex : `list = [10, 20, ['a', 'b', ['c', 'd']], 30, 40]`

- Diagrammatically it can be represented as



- If you are having nested list you can prepare a matrix also with same type of values . Lets, see this in a program

```
A = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
B = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]

C = []

for i in range(len(A)):
    S = []
    for j in range(len(A[0])):
        S.append(A[i][j] + B[i][j])
    C.append(S)

print(C)
```

A, B are 2 list in which nested list resides
On this 2 list we are performing addition and
appending the results in C and printing the
result

```
[[10, 10, 10], [10, 10, 10], [10, 10, 10]]
```

- Just like + you can also perform - , * on a matrix