Memory Allocation Logic for 1D & 2D arrays in C++

One Dimensional Array

```
int * arr = new int[n];
```

delete [] arr;

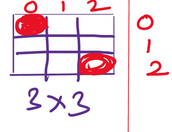
1D, 2D (1000 D)

2D : n × n Square Matrix

```
int ** arr = new int*[n];
```

rxc — each row

manually create rows.

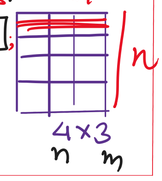


2D : n × m Non Square Matrix

```
int ** arr = new int*[n];
```

rows

manually create rows.



[Standard Template Library] STL

Built-in Data Structures in C++

```
#include <library_name>
```

Important Libraries are :→

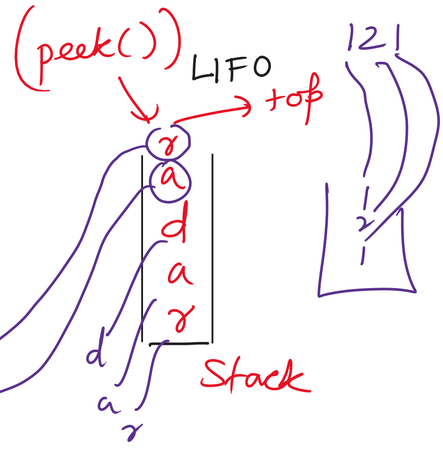
* stack ✓
* queue ✓
* list → list, forward_list
* set → set, unordered_set
* map → map, unordered_map
* Vector

(String) name :→ radar

traverse → 1

traverse → 2

rahul — false



Pair < first key, second Value >

< String, int >

name, marks

Nithin, 80

Sinchana, 85

Pizza, 99

Sourav, Football

(Map)

pair.first

pair.second

dictionary { k, v }