STACKS

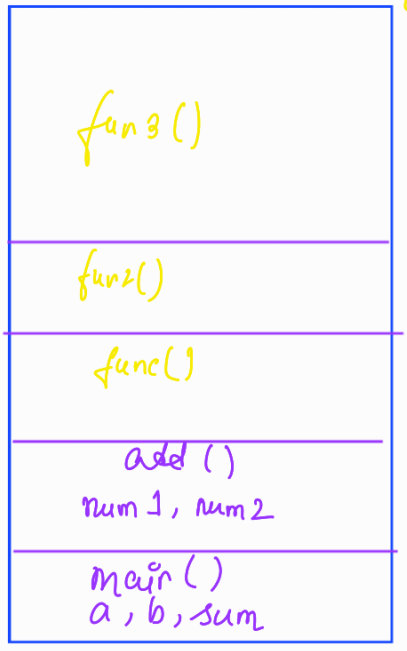
Not required to allocate or de-locate memory.

→ is of a fixed size.

Stack Overflow

Let's see by an example :-

```
int add (int num1, int num2){
    return num1 + num2;
}
int main (){
    int a=2;
    int b=3;
    int Sum = add(a,b);
    return 0;
}
```



Memory stack

Heap

→ size is not fixed.

→ We have to allocate and de-allocate the memory.

If not done, then it may result into memory leak (especially in server sides).

Let's understand by an example :-

```
int main(){
    int a=10;          // stored in stack
    int *p= new int(); // allocate memory in heap
    *p = 10; // pointer that is pointing the memory location in heap.
    delete(p);         // de-allocate in memory from heap.
    p = new int[4];
    delete[] p; // will delete the block of array stored in heap
    p=NULL; //
    return 0;
}
```

p will get destroyed after the main function

Explaination