10/9/23 Week-3 Doubt class

APCO
Date: 4/7

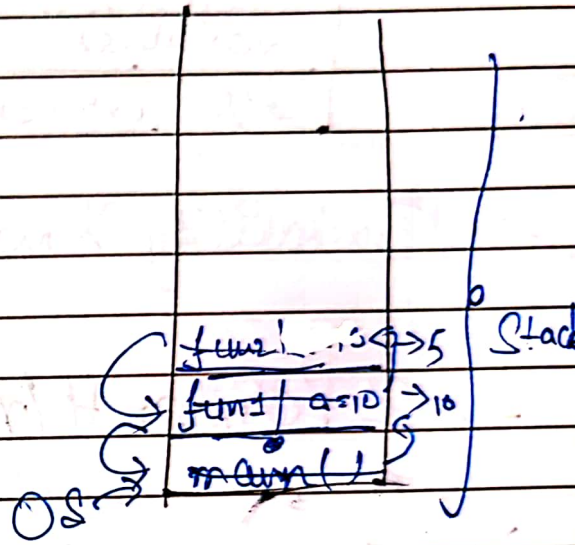
int arr [5] = "Raw allocation"

↳ advance of arr → Vector

```
int fun2 ()
{
    cout << 5;
    return 5;
}

int fun1 (int a)
{
    cout << a;
    fun2 (a); return 5;
}

int main ()
{
    cout << fun1 (10);
}
```



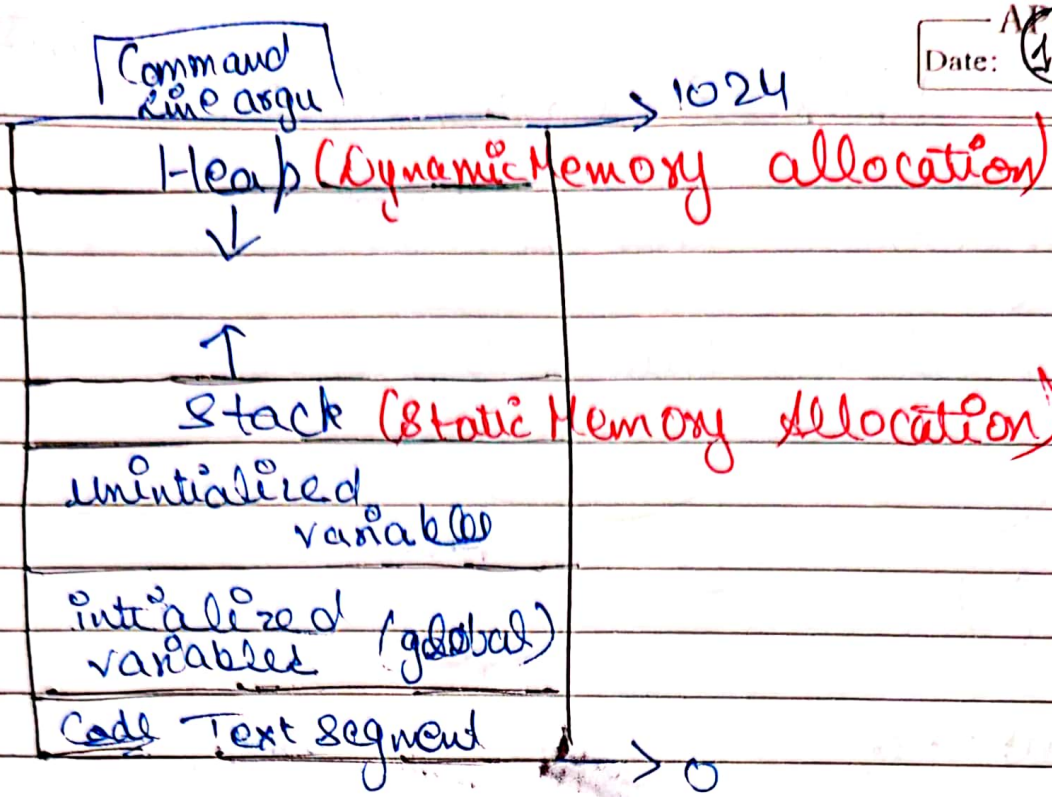
Return → Pass By value

* → Stack only store local variable

* → Global variable are stored in Data Memory.

10/9/23

Date: 148



→ Trackability & maintainability → Cannot do for global variables

→ 2 Pointer H/w → Done

→ Count set bit → bit = n & 1

```
while (n) {
if (bit)
Count ++
n >> 1;
}
```

Pg → 146 → New Code for two pointers

APCO
Date: 4/4/21

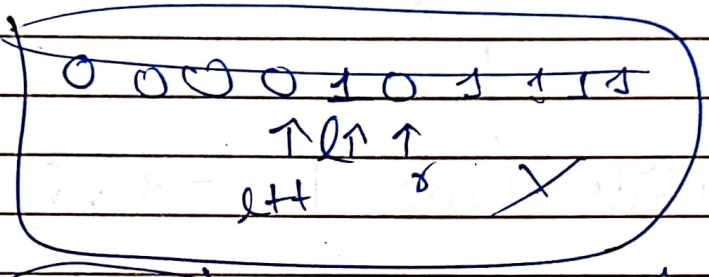
while (l < r) {

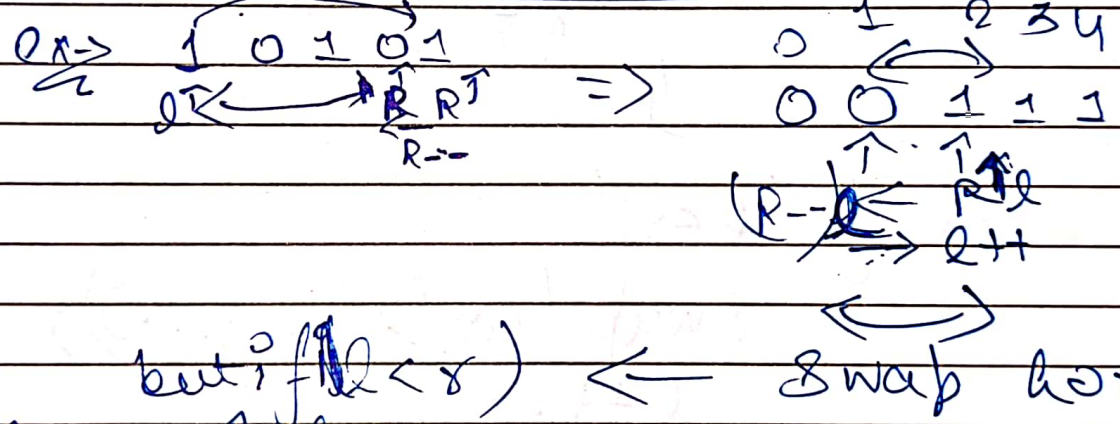
while (arr[l] == 0 && l < r)

l++;

why this is important!

}





but if (l < r) ← swap horha

before swap ↑ hota

toh ye swap Na hota

ex:- 0, 0, 1, 1, 0 → 0, 0, 0, 1, 1

l → l++ → l++ r

if l < r → innerwhile

Then → r--

& swap will Take place

Wrong

This prevented by l < r

10/9/23 Two Pointer Approach

APCO Date: 150

Sort 0's & 1's

```
while (l < r){
    while (arr[l]==0 && l<r){
        l++;
    }
    while (arr[r] == 1 && l<r){
        r--;
    }
    if (l<r){
        swap(arr[l], arr[r]);
        l++;
        r--;
    }
```

DRY-RUN:

0	1	2	3	4	5
0	0	1	1	0	1
l→	→	→			r

```
while (arr[l]==0 && l<r)
    l++
```

APCO
Date: 1/5/1

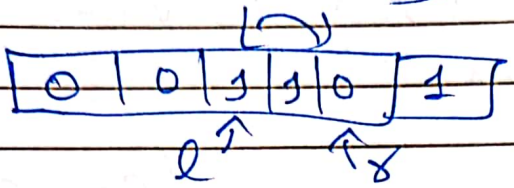
10/9/23

$l = 2$, $r = 5$

while (arr[r] == 1 && l < r){

r--;

}

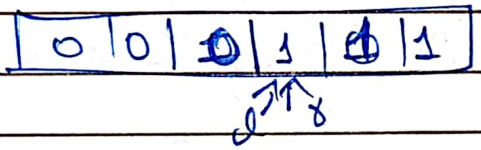


if (l < r)

Swap (l, r)

l++

r--



l = r

↳ so, go out of Loop