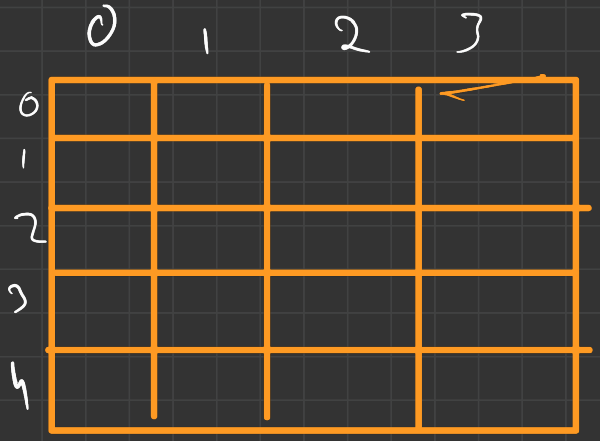
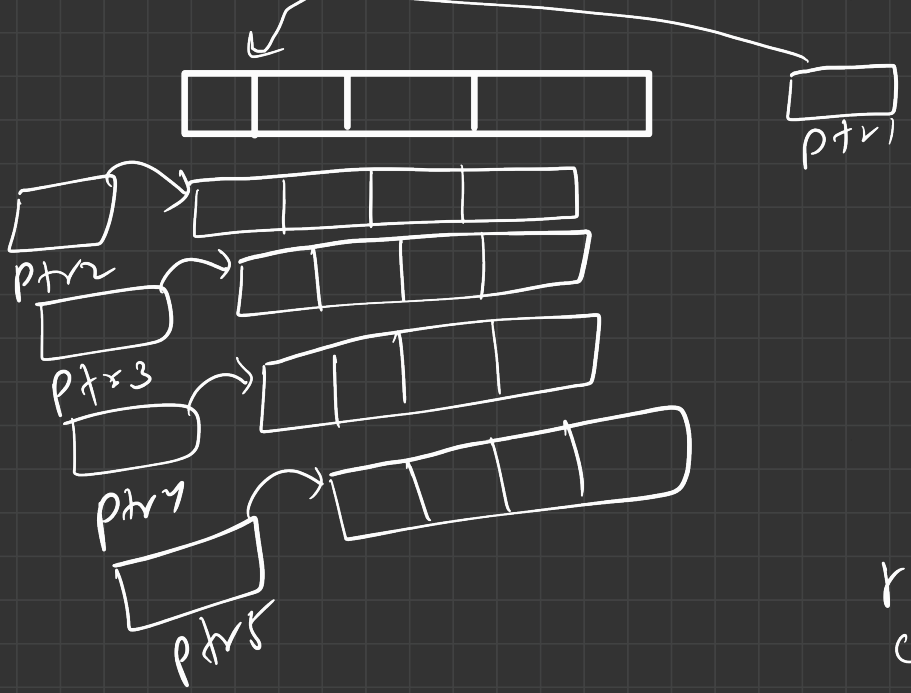
# 2D ARRAY

row = 5
col = 4




```
int *ptr1 = new int [4]
int *ptr2 = new int [4]
int *ptr3 = new int [4]
int *ptr4 = new int [4]
int *ptr5 = new int [4]
```




→ int *ptr1 = new int [4]

→ int *ptr2 = new int [4]

int *ptr3 = new int [4]

int *ptr4 = new int [4]

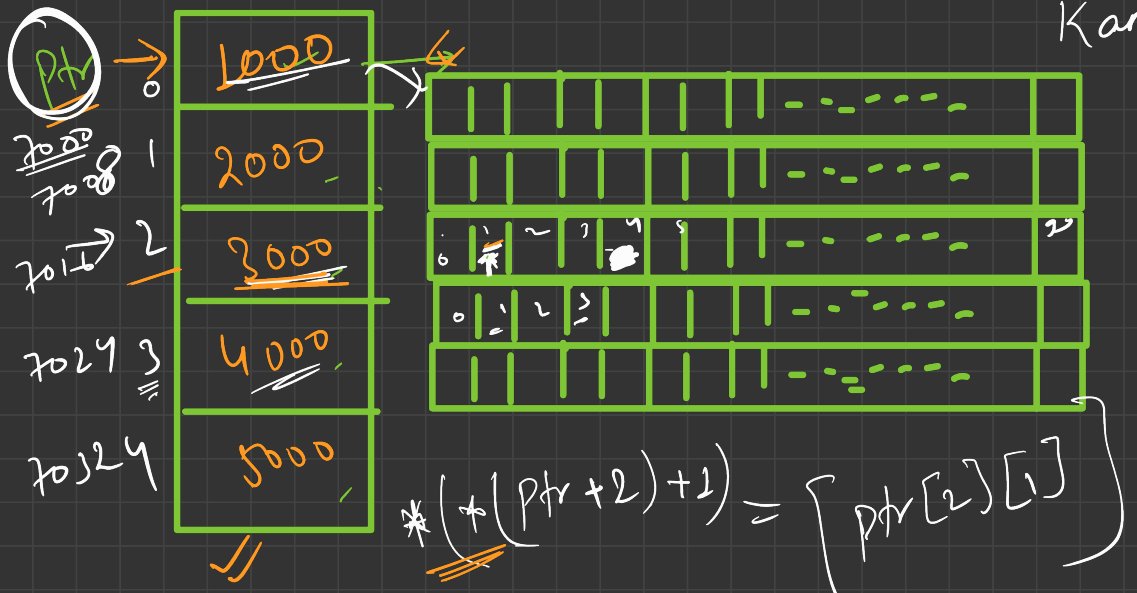
int *ptr5 = new int [4]

row = 100

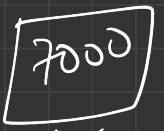
col = 200

row = 5
col = 100

① 1D Array store add
② Har ek add store Karega ek array ko




*(*(ptr+2)+1) = [ptr[2][1]]

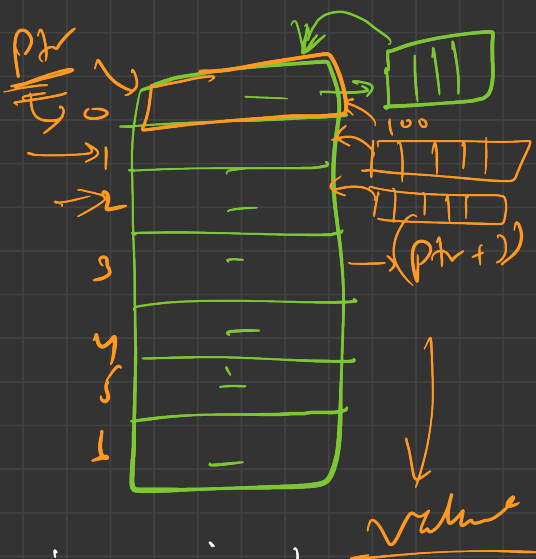



*(*(ptr+2)+1)
→ 2D
→ 2 pointer

int **ptr

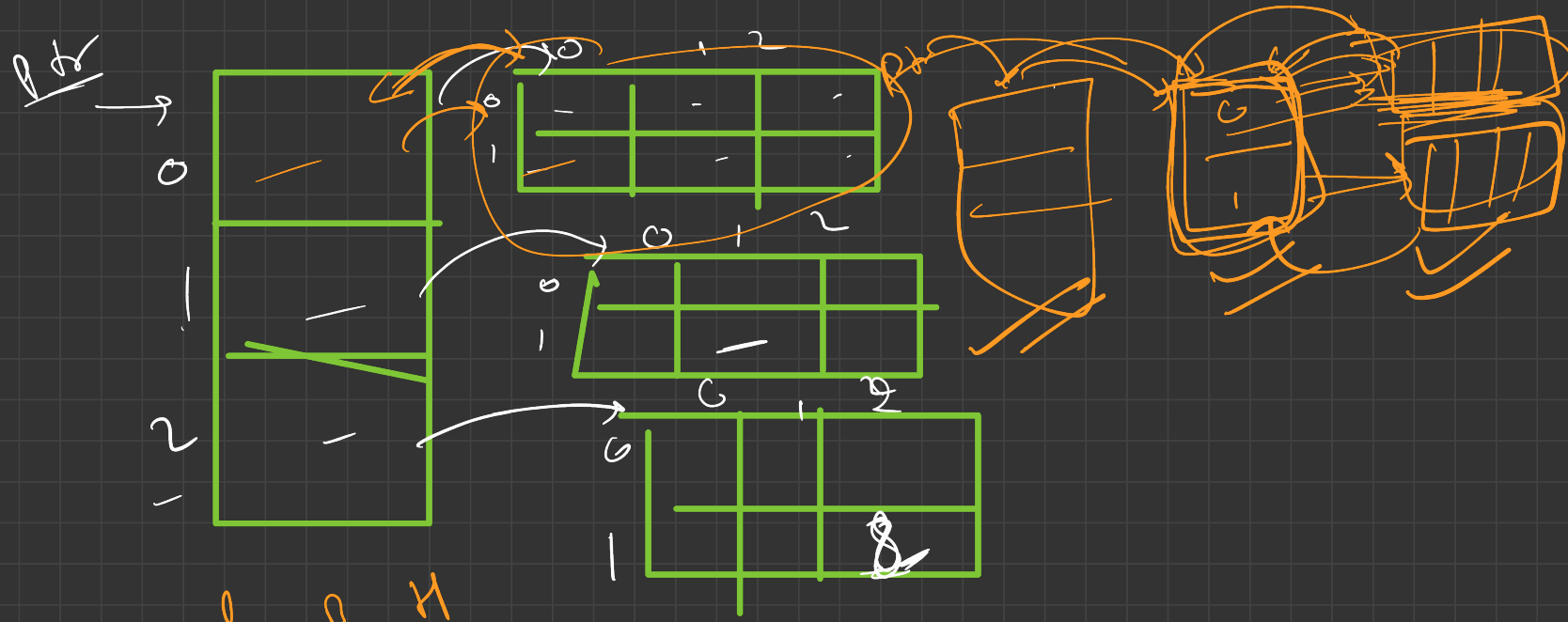
2D

```
int **ptr = new int *[n]
for(i=0; i<n; i++){
    ptr[i] = new int[m];
for (i=0; i<n; i++) {
    for(j=0; j<m; j++){
        cin>>ptr[i][j];
    }
}
```




```
for(i=0; i<n; i++)
    delete [] ptr[i]
delete[] ptr;
```

delete [] ptr



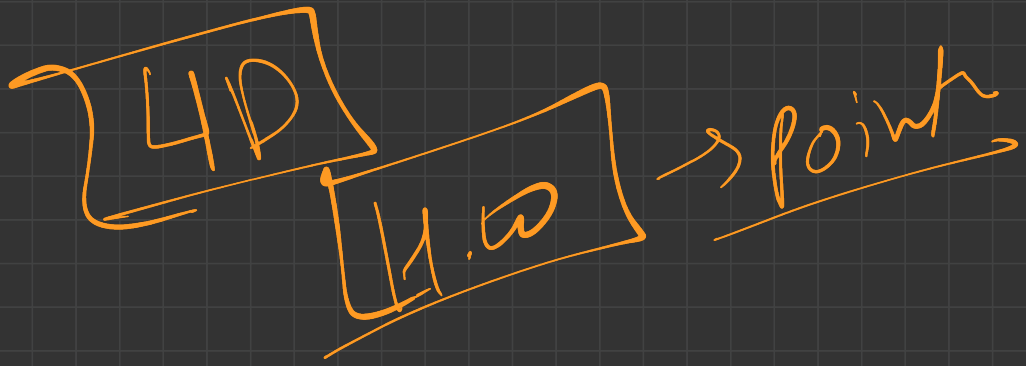

ptr[2][1][2] → *(*(*(ptr+2)+1)+2)

ptr[1][1][1] → (*(*(*(ptr+1)+1)+1)

```
int *** ptr = new int ** [L];
for( i=0; i<L; i++){
    ptr[i]= new int *[B]
    for (j=0; j<B; j++){
        ptr[i][j] = new int[H];
    }
}
```

30

20



```
int arr[4][5]
cout << arr
cout << arr[0]
cout << arr[0][0]
```

same

same

value