Double Dimensional Integer Array

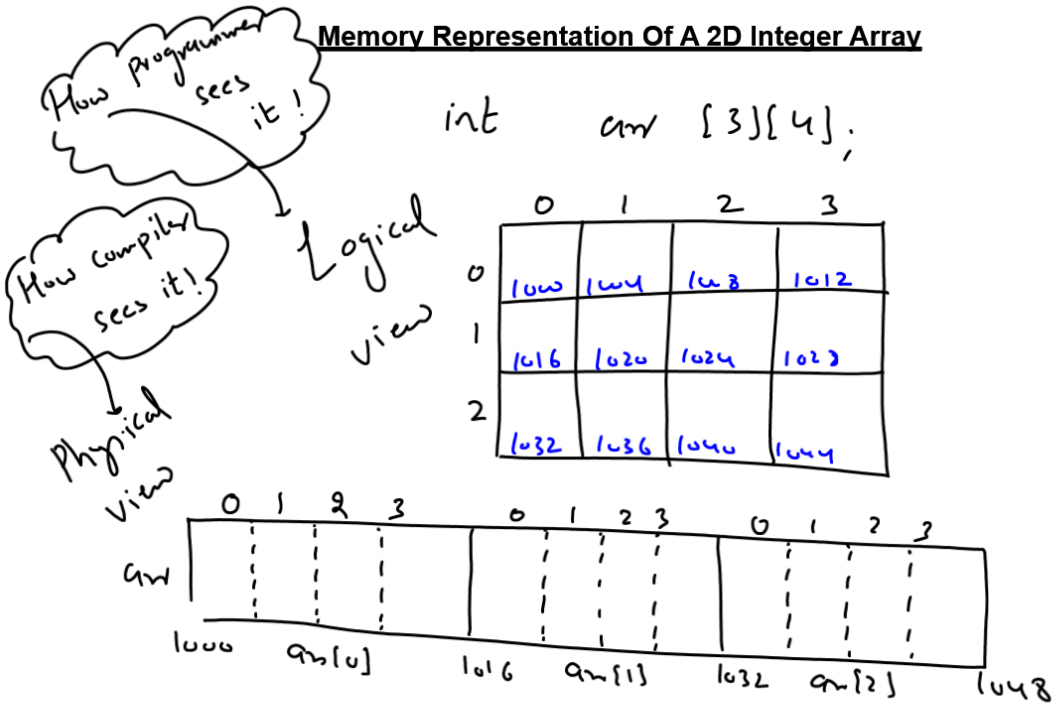
Syntax

int int

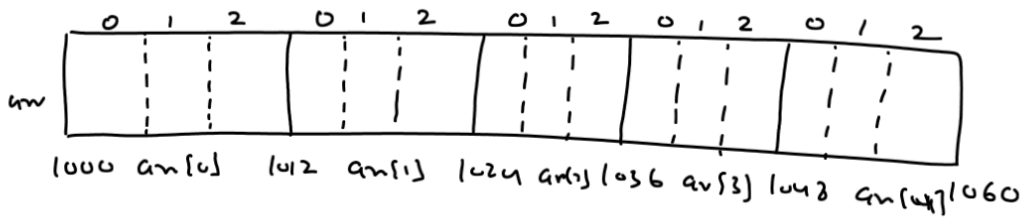
<data type> <array_name> [row size] [col size];

example

int marks [3][4];



```
int am[5][3];
```



Accessing 1D 2D Array

```
int am[3][4];
```

am

	0	1	2	3
0	25			
1				
2		40	60	

Syntax

```
<am>[row in][col in]=val;
```

```
am[0]=25; X
```

ex

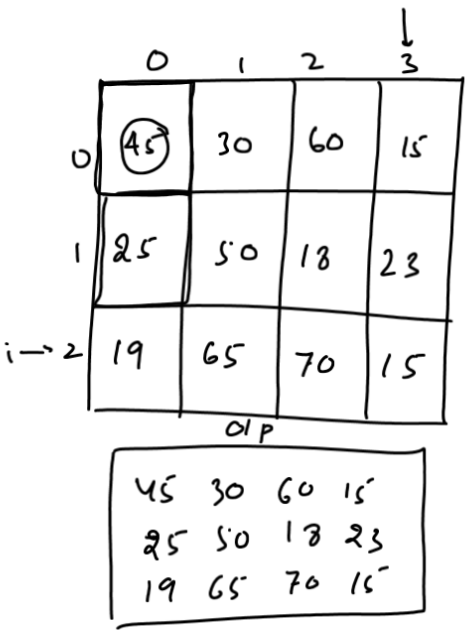
```
am[0][0]=25;
am[2][1]=40;
am[2][2]=60;
```

```
printf(" %d", am[0][0]);
          25
printf(" %d", am[2][1]);
          40
.
.
.
```

ACCEPTING INPUT FROM USER IN A 2D ARRAY

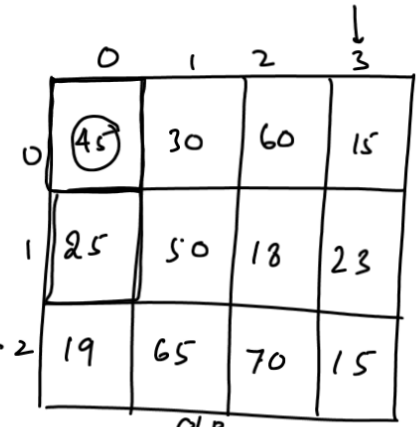
WAP to create a 2D integer array of 3 * 4 size. Accepot input from the user in it and then print all the array values in matrix form

```
int main()
{
   int arr[3][4];
   int i,j;
   for(i=0;i<3;i++)
   {
       for(j=0;j<4;j++)
       {
          printf("enter no:");
          scanf("%d",&arr[i][j]);
       }
   }
   for(i=0;i<3;i++)
   {
       for(j=0;j<4;j++)
       {
          printf("%d ",arr[i][j]);
       }
       printf("\n");
   }
  return 0;
}
```



WAP to create a 2D integer array of 3 * 4 size. Accepot input from the user in it and then print the sum and average of all array elements

```
int main()
{
   int arr[3][4];
   int i,j,sum=0;
   for(i=0;i<3;i++)
   {
       for(j=0;j<4;j++)
       {
          printf("enter no:");
          scanf("%d",&arr[i][j]);
          sum=sum+arr[i][j];
       }
   }
printf("Sum is %d",sum);
printf("\nAvg is %f",(float)sum/(i*j));
  return 0;
}
```




```
o/p
45 30 60 15
25 50 18 23
19 65 70 15
```

Assume we have 3 students and each student has 4 subjects . WAP to accept marks of every subject for each student from the user and do the following:

1. Find out the total marks scored by ever student.