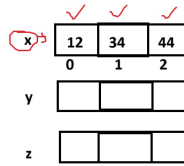
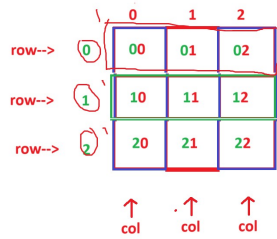


what is 2D (Two Dimensional) Array ?

A 2D array is an array of arrays ,used to store elements in rows and columns format - like matrix or table.

10	20	30
40	50	60
70	80	90



declaration

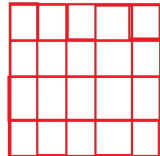
```
int x[row][col];
```

dec+ init

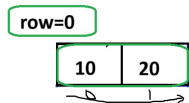
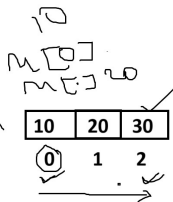
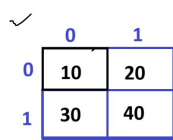
```
int x[4][5]={
    {10,11,12,13,14},
    {12,14,44,53,64},
    {17,18,19,73,84},
    {20,21,22,23,24}
};
```

```
int a[3][2];
a[0]={10,20};
a[1]={11,22};
a[2]={13,24};
```

```
int y[2][2];
y[0][0]=10;
y[0][1]=20;
y[1][0]=30;
y[1][1]=40;
```

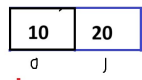
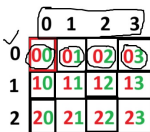


row=5
col=6
total element=30



```
for(row=1){
    for(col=0-3){
    }
}
```

```
int x[row][col]
int x[3][4]
```



```
for(int row=0; row< 3; row++){
    for(int col=0; col< 4; col++){
        x[0][0]
    }
}
for(int row=0; row< 3; row++){
    for(int col=1; col< 4; col++){
        x[0][1]
    }
}
for(int row=0; row< 3; row++){
    for(int col=2; col< 4; col++){
        x[0][2]
    }
}
for(int row=0; row<=3; row++){
    for(int col=3; col< 4; col++){
        x[0][3]
    }
}
for(int row=0; row<=3; row++){
    for(int col=4; col< 4; col++){
        x[0][4]
    }
}
```

```
for(int row=1; row< 3; row++){
    for(int col=0; col< 4; col++){
        x[1][0]
    }
}
for(int row=1; row< 3; row++){
    for(int col=1; col< 4; col++){
        x[1][1]
    }
}
for(int row=1; row< 3; row++){
    for(int col=2; col< 4; col++){
        x[1][2]
    }
}
for(int row=1; row< 3; row++){
    for(int col=3; col< 4; col++){
        x[1][3]
    }
}
for(int row=1; row< 3; row++){
    for(int col=4; col< 4; col++){
        x[1][4]
    }
}
```

```
for(int row=2; row< 3; row++){
    for(int col=0; col< 4; col++){
        x[2][0]
    }
}
for(int row=2; row< 3; row++){
    for(int col=1; col< 4; col++){
        x[2][1]
    }
}
for(int row=2; row< 3; row++){
    for(int col=2; col< 4; col++){
        x[2][2]
    }
}
for(int row=2; row< 3; row++){
    for(int col=3; col< 4; col++){
        x[2][3]
    }
}
for(int row=2; row<=3; row++){
    for(int col=4; col< 4; col++){
        x[2][4]
    }
}
```