

Multi Dimensional Array in C

Arrays can have more than one dimension, these arrays-of-arrays are called multidimensional arrays. They are very similar to standard arrays with the exception that they have multiple sets of square brackets after the array identifier.

Declaration

```
datatype array_name[n1][n2][n3]...[nn];
```

Example

```
#include<stdio.h>
#include<conio.h>

void main()
{
    int i, j, k;
    int arr[3][3][3]=
    {
        {
            {11, 12, 13},
            {14, 15, 16},
            {17, 18, 19}
        },
        {
            {21, 22, 23},
            {24, 25, 26},
            {27, 28, 29}
        },
        {
            {31, 32, 33},
            {34, 35, 36},
            {37, 38, 39}
        },
    };
    clrscr();

    printf("Array Elements\n\n");
    for(i=0;i<3;i++)
    {
        for(j=0;j<3;j++)
        {
            for(k=0;k<3;k++)
            {
                printf("%d\t",arr[i][j][k]);
            }
            printf("\n");
        }
        printf("\n");
    }
    getch();
}
```

