

# Tutorial 1

Pointer tutorial

- 2d array as function argument.
- char pointer accessing int value

This is a function displaying elements of a 2D array.  
Now, you modify this to display row-wise sum (or column-wise sum).

```
#include <stdio.h>

void print_2d_array(int *a, int rows, int cols);
void print_2d_array(int *a, int rows, int cols)
{
    for(int i = 0; i < rows; ++i) {
        for(int j = 0; j < cols; ++j) {
            printf("%d ", a[i * cols + j]);
        }
        printf("\n");
    }
}

int main(void)
{
    int arr[][3] = { {1, 2, 3}, {4, 5, 6} };
    print_2d_array(arr[0], 2, 3); /*first argument type is what?? */
}
```

# char pointer accessing int value

```
#include <stdio.h>
int main()
{
    int i = 23;
    char *p;
    p = (char *) &i;
    int s = sizeof(i)/sizeof(char);
    for (int k=0; k<s; k++) {
        printf("%d, ", *p); p++; }
    return 0;
}
```