

Practicing multi-dimensional arrays

README

- Practice workbook for multi-dimensional arrays in C
- See GitHub for script/solutions

Emacs setup (optional)

Hide emphatic characters like ~, *

To **not** see the emphatic characters like ~ or * or / in the Org file text, run the following code chunk (or put the code in your /.emacs file): if successful, you should see "t" in the minibuffer.

```
(setq-default org-hide-emphasis-markers t)
```

This will only work for new buffers. If you don't put it in your /.emacs file, the command will only work for the current Emacs session.

Close and reopen this file to see an effect.

Change your theme

- In Emacs, type M-x custom-themes
- In the buffer that appears, select Leuven
- Select Apply and Save Setting
- This will work immediately

Print a 2-dimensional array

- []

Declare a 4 x 3 matrix and print it in 2 dimensions. Complete the sample code below to get the output shown.

Output:

```
#+RESULTS:
:  1  2  3
:  4  5  6
:  7  8  9
: 11 12  0
```

Code:

```
int m[4][3] = {1,2,3,4,5,6,7,8,9,11,12};

for (int i=0;i<4;i++) {
```

```
for(int j=0;j<3;j++) {  
    printf("%3d", m[i][j]);  
}  
printf("\n");  
}
```

```
1  2  3  
4  5  6  
7  8  9  
11 12 0
```

Use sizeof in a for loop

- []

The code block below defines an array a of length 5. Complete the for loop using the sizeof operator. The loop re-initializes a.

```
int a[5] = {0};  
  
for (int i = 0; i < sizeof(a)/sizeof(a[0]); i++) {  
    a[i] = 1;  
    printf("a[%d] = %d\n", i, a[i]);  
}
```

```
a[0] = 1  
a[1] = 1  
a[2] = 1  
a[3] = 1  
a[4] = 1
```

- [] To check, change the length of the array to 10 and re-run the code.

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