

# EE4013 Assignment-1

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Download all python codes from

<https://github.com/Sivanidevarapalli26/EE4013-C-DS/tree/main/Assignment-1/codes>

and latex-tikz codes from

<https://github.com/Sivanidevarapalli26/EE4013-C-DS/tree/main/Assignment-1>

2.2 Codes of the given program:

codes/assignment1.py  
codes/assignment1.c

## 1 PROBLEM

Consider the following ANSI C function:

```
#include<stdio.h>
int main(){
    int arr[4][5] ;
    int i,j;
    for(i=0;i<4;i++){
        for(j=0;j<5;j++){
            arr[i][j]=10*i+j;
        }
    }
    printf("%d",*(arr[1]+9));
    return 0;
}
```

What is the output of the above program?

## 2 SOLUTION

### 2.1 Answer

Given that the elements of the two-dimensional array are as follows:

$$arr[i][j] = 10i + j \quad (2.1.1)$$

From question, the output it should print is  $*(arr[1]+9)$ , which is the pointer pointing on 9th element from the start of second row and first column in that 2D array (i.e., 9th element from  $arr[1][0]$ ).

$\therefore$  The required element to be printed as output is  $arr[2][4]$ .

From eq-(2.1.1), we get

$$arr[2][4] = 10 \times 2 + 4 = 24 \quad (2.1.2)$$