

## Double Dimensional Character Array (Array of strings)

Syntax :

char <array-name> [row size] [col size];

Ex:

char names[5][10];

```
int main()
{
    char str[5][10];
    int i;

    for (i = 0; i < 5; i++)
    {
        printf("Enter name:");
        gets(str[i]);
    }

    for (i = 0; i < 5; i++)
        printf("%s\n", str[i]);

    return 0;
}
```

str	0	1	2	3	4	5	6	7	8	9
str[0] → 0	r	a	v	j	i					
str[1] → 1	v	i	n	e	t	i				
str[2] → 2	p	o	o	j	a	i				
str[3] → 3	d	e	e	p	a	k	i			
str[4] → 4	j	y	o	r	g	i				

WAP to accept 5 names and store them in a 2D character array. Now calculate the length of each name using appropriate string function

```
#include<stdio.h>
#include <string.h>
int main()
{
    char str[5][10];
    int i,x;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        gets(str[i]);
    }
    for(i=0;i<5;i++)
    {
        x=strlen(str[i]);
        printf("\nLength of %s is %d",str[i],x);
    }
    return 0;
}
```

	0	1	2	3	4	5	6	7	8	9
✓ str[0] → 0	k	a	v	j	i					
✓ str[1] → 1	v	i	n	e	e	r				
str[2] → 2	p	o	o	j	a					
str[3] → 3	d	e	e	p	a	k				
str[4] → 4	j	y	u	r	j	i				

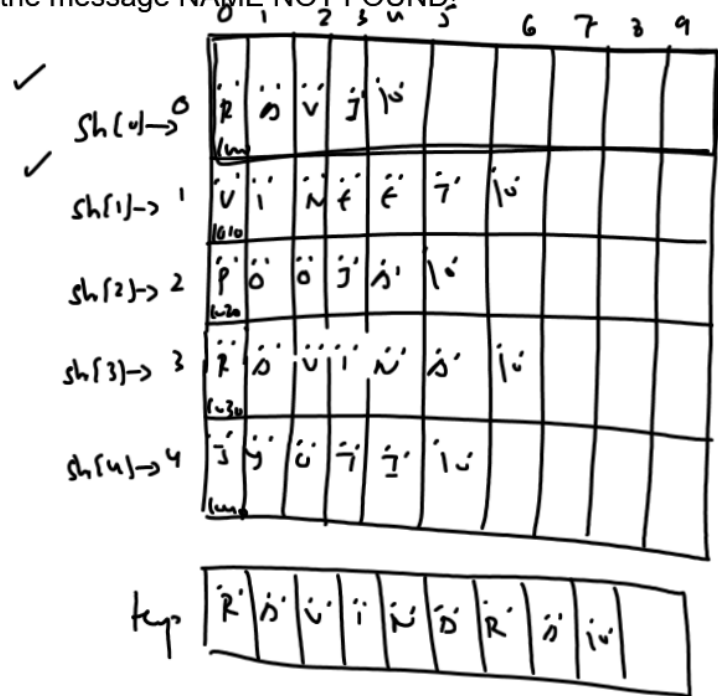
Rewrite the previous code again , but do not use any STRING FUNCTION

```
#include<stdio.h>
#include <string.h>
int main()
{
    char str[5][10];
    int i,j;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        gets(str[i]);
    }
    for(i=0;i<5;i++)
    {
        for(j=0;str[i][j]!='\0';j++);
        printf("\nLength of %s is %d",str[i],j);
    }
    return 0;
}
```

	0	1	2	3	4	5	6	7	8	9
✓ str[0] → 0	k	a	v	j	i					
✓ str[1] → 1	v	i	n	e	e	r				
str[2] → 2	p	o	o	j	a					
str[3] → 3	d	e	e	p	a	k				
str[4] → 4	j	y	u	r	j	i				

WAP to accept 5 names and store them in a 2D character array. Now again ask the user to input another name and search it in the 2D Array. If name is found then print the position of the name , otherwise print the message NAME NOT FOUND!

```
#include<stdio.h>
#include <string.h>
int main()
{
    char str[5][10],temp[10];
    int i;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        gets(str[i]);
    }
    printf("Enter name to search:");
    gets(temp);
    for(i=0;i<5;i++)
    {
        if(strcmp(str[i],temp)==0)
        {
            printf("Name is at %d pos",i+1);
            break;
        }
    }
}
```



```
if(i==5)
    printf("Name not found!");
return 0;
}
```

# FUNCTION

