DOUBLE DIMENSIONAL CHARACTER ARRAY

SYNTAX:
========

<data type> <array_name>[int const] [int const];

ex

char   name [5] [10);

```
int  main( )
{
    char  name [5][10];
    int  i;
    for (i = 0; i < 5; i++)
    {
        print ("Enter name:");
        scanf("./.s", name[i]);
    }
    for(i=0; i < 5; i++)
        print("\n Hello ./.s", name[i]);
    return 0;
}
```

row size

col size

name[0]→0
name[1]→1
name[2]→2
name[3]→3
name[4]→4

name

	0	1	2	3	4	5	6	7	8	9
R	ა	H	ს	L	\0	?	?	?	?	
R	ს	P	E	S	H	\0	?	?	?	
ა	N	I	L	\0	?	?	?	?	?	
D	E	E	P	ა	k	\0	?	?	?	
P	R	ა	S	H	ა	N	?	\0	?	

DISPLAYING FIRST CHARACTER OF EVERY STRING

```c
#include <stdio.h>
int main()
{
    char name[5][10];
    int i;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        scanf("%s",name[i]);
    }
    for(i=0;i<5;i++)
    {
        printf("\nHello %c",name[i][0]);
    }
    return 0;
}
```
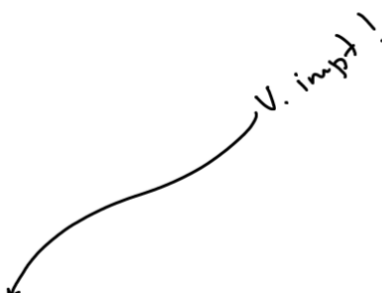
name[0]→0
name[1]→1
name[2]→2
name[3]→3
name[4]→4

TRAVERSING EVERY ROW OF A 2D CHARACTER ARRAY

```c
#include <stdio.h>
int main()
{
    char name[5][10];
    int i,j;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        scanf("%s",name[i]);
    }
    for(i=0;i<5;i++)
    {
        printf("Hello ");
        for(j=0;name[i][j]!='\0';j++)
            printf("%c",name[i][j]);
        printf("\n");
    }

    return 0;
}
```

WAP to accept 5 names from the user , store them in a 2D character array and print the length of each name using appropriate string function

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

   }
   return 0;
}
```

Rewrite the previous code but without using strlen()

```c
#include <stdio.h>
int main()
{
   char name[5][10];
   int i,j;
   for(i=0;i<5;i++)
   {
      printf("Enter name:");
      scanf("%s",name[i]);
   }
   for(i=0;i<5;i++)
   {
      for(j=0;name[i][j]!='\0';j++);
         printf("\nName is %s,Length is %d",name[i],j);

   }
   return 0;
}
```

V. impt !

WAP to accept 5 names from the user , store them in a 2D character array and again ask the user to input a name. Now search and print the position of this name in 2D array.


```c
#include <stdio.h>
int main()
{
    char name[5][10],temp[10];
    int i,x;
    for(i=0;i<5;i++)
    {
        printf("Enter name:");
        scanf("%s",name[i]);
    }
    printf("Enter name to search:");
    scanf("%s",temp);

    for(i=0;i<5;i++)
    {
        x=strcmp(name[i],temp);
        if(x==0)
        {
            printf("Name found at %d pos",i+1);
            break;
        }
    }
    if(x!=0)
        printf("Name not found!");
    return 0;
}
```