C-66 ⇒ Program to find Length of string

Length of string :-

* Length of a string can be found out using predefined function strlen() which is defined in string.h header file.

Eg:-

J	a	y	a	n	t	h	i	\0

(1 2 3 4 5 6 7 8)

Strlen ⟹ 8 characters.

* strlen() will give the length of string excluding null because null is end of string. It Counts only number of characters.

Eg:①

```
# include <string.h>
void main
{
    int count;
    char name [30];
    printf (" Enter name: ");
    gets (name);

    strlen (name);
```

name [1000]

J	a	y	a	n	t	h	i	\0
1000 01 02 03   1029

strlen (char * str)

// strlen (name.)
⌐⟶ It acts as internal pointer to string and returns unsigned int value.

*
```
strlen ( char * str )
{
    unsigned int;
}
```
⟶ <string.h>

meaning ⟹ strlen (name) returns unsigned int.

* To store the value we can use one
int variable Count and print it.

```
        Count = strlen (name);
    3  printf (" string length is : %d ", count);
```

Example ② :-

* We can also print length of the
string without using strlen() function.

* It can be done using loops.

```
    # include <stdio.h>      // using while loop.
    # include <string.h>
    void main()
    {
```

0	1	2	3	4	5	6	7	8
J	a	y	a	n	th	i	\0	

```
        int i, count = 0;
        char name[30];
        printf (" Enter name :");
        gets (name);
        while ( name[i] != '\0' )
        {
```

┌─────────────────────────────┐
│ '\0' → Null Character │
└─────────────────────────────┘

```
            count = count + 1;  // count ++;
                i++;
        3
        printf (" string length is : %d", count);
    3
```

Example 3

```c
#include <stdio.h>
#include <string.h>
void main ()
{
    char name [30];
    int i, count = 0;
    printf (" Enter name: ");
    gets (name);
    for (i = 0; i < 30; i++)
    {
        if (name [i] == '\0')
        {
            break;
        }
        count = count + 1;
    }
    printf (" String length is: %d", count);
}
```

CODE 1:

```
1    #include <stdio.h>
2    #include <stdlib.h>
3    #include <string.h>
4    /** 1-STRING LENGTH **/
5    /** strlen() functions are defined in string.h, so add string header file**/
6    /** PROGRAM TO FIND STRING LENGTH USING strlen() **/
7    int main()
8    {
9        char name[30];
10       int count;
11       printf("Enter name:");
12       gets(name);
13       count=strlen(name);
14       printf("String length or number of characters in string is:%d",count);
15       getch();
16   }
17
```

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```
Enter name:Hello World
String length or number of characters in string is:11_
```

CODE 2:

```c
#include <stdio.h>
#include <stdlib.h>
/** 2-STRING LENGTH **/
/** PROGRAM TO FING STRING LENGTH USING strlen() **/
/** USING WHILE LOOP **/
int main()
{
    char name[30];
    int i=0,count=0;
    printf("Enter name:");
    gets(name);
    while(name[i]!='\0')
    {
     count=count+1;
     i++;
    }
    printf("String length or number of characters in string is:%d",count);
    getch();
}
```

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```
Enter name:Hello World
String length or number of characters in string is:11
```

CODE 3:

```
1    #include <stdio.h>
2    #include <stdlib.h>
3    /** 3-STRING LENGTH **/
4    /** PROGRAM TO FING STRING LENGTH USING strlen() **/
5    /** USING for LOOP **/
6    int main()
7    {
8        char name[30];
9        int i,count=0;
10       printf("Enter name:");
11       gets(name);
12       for(i=0;i<30;i++)
13       {
14         if(name[i]=='\0')
15         {
16           break;
17         }
18         count=count+1;
19       }
20       printf("String length or number of characters in string is:%d",count);
21       getch();
22    }
```

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```
Enter name:Hello Jayanthi
String length or number of characters in string is:14
```

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```
Enter name:Hello World
String length or number of characters in string is:11
```