

## TRAVERSING A CHARACTER ARRAY

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

WAP to accept a string from the user and print its length

SAMPLE OUTPUT

=====

Enter a string:

BHOPAL

Length is 6

$i = 0 + 1 + 2 + 3 + 4 + 5 \text{ (6)}$   
 $x = 0 + 1 + 2 + 3 + 4 + 5 \text{ (6)}$

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    char str[15];
```

```
    int i,x=0;
```

```
    printf("Enter a string:");
```

```
    scanf("%s",str);
```

```
    for(i=0;str[i]!='\0';i++)
```

```
        x++;
```

```
    printf("Length is %d" (x));
```

```
    return 0;
```

```
}
```

0	1	2	3	4	5	6
B	H	O	P	A	L	
i	+	+	+	+	+	i

SAMPLE OUTPUT

=====

Enter a string:

BHOPAL

Length is 6

$i = 0 + 2 + 3 + 4 + 5 + 6$

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    char str[15];
```

```
    int i;
```

```
    printf("Enter a string:");
```

```
    scanf("%s",str);
```

```
    for(i=0;str[i]!='\0';i++);
```

```
    printf("Length is %d",i);
```

```
    return 0;
```

```
}
```

0	1	2	3	4	5	6
B	H	O	P	A	L	

$i \quad + \quad + \quad + \quad + \quad +$

v. imp

WAP to accept a string from the user and print its REVERSE

SAMPLE OUTPUT

=====

Enter a string: RAMA

AMAR

SAMPLE OUTPUT

=====

Enter a string: RAHUL

LUHAR

## DRAWBACK OF THE FUNCTION scanf() W.R.T STRINGS

The function scanf() cannot accept MULTI WORD STRINGS.

**Solution:** Use another function called **gets()**

```
#include <stdio.h>
int main()
{
    char str[15];
    printf("Enter your name:");
    gets(str);
    printf("\nHello %s",str);
    return 0;
}
```

SAMPLE OUTPUT

=====

Enter a string: Abhay Rai  
Hello Abhay Rai

WAP to accept a string from the user and print it by CONVERTING all UPPER CASE LETTERS to LOWER CASE and vice versa

SAMPLE OUTPUT

=====

Enter a string: Abhay Rai  
Hello aBHAY rAI



```
#include <stdio.h>
int main()
{
    char str[15];
    int i;
    printf("Enter your name:");
    gets(str);
    for(i=0;str[i]!='\0';i++)
    {
        if(str[i]>=65 && str[i]<=90)
            str[i]=str[i]+32;
        else if(str[i]>=97 && str[i]<=122)
            str[i]=str[i]-32;
    }
    printf("Hello %s",str);
    return 0;
}
```

## STRING FUNCTIONS

1. strlen(): Accepts a string and returns its length

```
#include <stdio.h>
#include <string.h>
int main()
{
```

```
    char str[15];
    int x;
    printf("Enter your name:");
    gets(str);
```

```
    x=strlen(str);
    printf("Length of %s is %d",str,x);
```

```
    return 0;
```

```
}
```

printf("Length of %s is %d",  
str, strlen(str));