

2. STRING

Date _____

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INTRODUCTION

- String is collection of characters like alphabets and some special characters.
- It is always enclosed with " ".
- Simply we can say that it is,
 - ↳ Array of characters ended with Null character (' \0').
 - ↳ Null character indicates end of the string.

- ex:
- 's' - Considered as character
 - "s" - Considered as string.

SYNTAX:

- Datatype StringVariableName [size/No. of characters];

Ex : char name[10];

- Here, User can store 9 characters, 10th one is reserved for Null character.

- The String can also be initialized at the time of declaration.

Ex. `char city[7] = "Raikot";`

- It can be also done as

`char city[7] = {'R', 'a', 'i', 'j', 'K', 'o', 't', '\0'};`

↳ Here, the size is not compulsory & if not given, Compiler automatically computes & puts it.

READING & PRINTING OF STRING:

- In string we will use `getS()` & `putS()` function for reading & printing it.

(1) GETS() : This function is used to read the string.

↳ It returns the string entered by user.

Ex: `main()`

```
char a[20];
printf("Enter string");
gets(a);
printf("Entered string is : %s", a);
```

OUTPUT : Enter string : COMPUTER
Entered string is : computer

(2) PUTS() : It is somewhere similar to printf().

- puts() function is used to print the string on the screen.

EX: void main()

```
char name[20];
printf(" Enter String:");
gets(name);
printf(" You entered:");
```

OUTPUT : Enter string : COMPUTER
You entered : COMPUTER

STRING FUNCTIONS:

- 1 `strlen()` function which calculate length of string
- 2 `strrev()` function which reverse a string
- 3 `strcpy()`
- 4 `strcmp()` function compare two strings : XATMYS
- 5 `stscanf()`
- 6 `strwrd()` : X)
- 7 `strcat()`
- 8 `strgets()` < d. abit > ghumari
- 9 `strchrs()` < d. abit > ghumari
< d. abit > ghumari

(1) `strlen()`: The `strlen()` function calculates the length of a given string.

- It does not count null character '\0'.

Ex: `int main()`

```
char str[] = "Programming";
printf ("Length of string is: %d", strlen(str));
```

OUTPUT: Length of string is: 11

SYNTAX: `strlen(variable);`

(2) STRUPR() / STRUPC():

- The STRUPC() function is used to converts a given string to uppercase.

i.e: program

SYNTAX: STRUPC(variable);

→ PROGRAM

EX :

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
void main()
{
    clrscr();
    printf("Enter letters in lower : ");
    gets(a);
    printf("%s"; STRUPC(str));
    getch();
}
```

OUTPUT: Enter letters in lower : COMPUTER

(3) strlwr()

- The strlwr() function is used to convert given string in ~~UPPER~~ lowercase.

i.e: QA
→ qa

SYNTAX : strlwr(variable);

EX:

void main()

{

```
char str[50];
clrscr();
printf ("Enter letters in UPPER lower:");
gets(str);
printf ("\n", strlwr(str));
getch();
```

}

OUTPUT : Enter letters in UPPER : COMPUTER QA
computer qa