BOOK WRITTEN BY

PRAGYA INSTITUTE OF IT & RESEARCH

C STRING FUNCTION

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PRAGYA INSTITUTE OF IT & RESEARCH
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जो रास्ते से नहीं डरे, वही मंजिल तक पहुँचे।

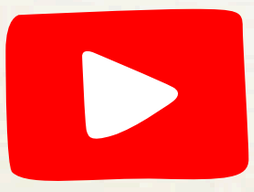
In C programming, a string is a sequence of characters terminated by a special character called the null character (\0). Strings are represented as arrays of characters and are commonly used to store and manipulate text.

Characteristics of Strings in C:

Null-Terminated:

- Strings in C are arrays of characters ending with a \0 (null character) to indicate the end of the string.
- For example, "Hello" is stored as:

['H', 'e', 'l', 'l', 'o', '\0']



Declaration:

Strings can be declared as

```
char str[10];  // Declares a string with a maximum of 9 characters + 1 for '\0'.
char str[] = "Hello";  // Declares and initializes a string.
char *str = "Hello";  // Points to a string literal (read-only).
```

Initialization:

Strings can be initialized using

char str[] = "Hello";

String Functions:

The C standard library (<string.h>) provides functions to manipulate strings:

- strlen(str): Returns the length of the string (excluding \0).
- strcpy(dest, src): Copies one string to another.
- strcat(dest, src): Concatenates two strings.
- strcmp(str1, str2): Compares two strings.
- strchr(str, ch): Finds the first occurrence of a character in a string.
- strstr(haystack, needle): Finds a substring in a string.

सफलता की चाबी, कड़ी मेहनत और दृढ़ संकल्प में है।


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

int main() {
char str1[20] = "Hello";
char str2[] = "World";

strcat(str1, str2);  // Concatenates str2 to str1
printf("Concatenated String: %s\n", str1);

printf("Length of String: %lu\n", strlen(str1));
// Prints the length of the string

return 0;
}
```

strcpy

Purpose: Copies the content of one string into another.

```
char *strcpy(char *destination, const char *source);
```

```
char dest[20];
char src[] = "Copy this!";
strcpy(dest, src);
printf("Destination String: %s\n", dest);
// Output: Copy this!
```

“जो हम खुशी से सीखते हैं उसे हम कभी नहीं भूलते।”

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