



Problem Solving With C - UE24CS151B

String manipulation Functions & Errors

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PROBLEM SOLVING WITH C

String manipulation Functions & Errors

1. Builtin String manipulation functions
2. User defined string functions
3. Error demonstration



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Built-in String manipulation Functions

- Expect '\0' and available in **string.h**
- In character array, if '\0' is not available at the end, result is undefined when passed to built-in string functions
- **strlen(a)** – Expects string as an argument and returns the length of the string, excluding the NULL character
- **strcpy(a,b)** – Expects two strings and copies the value of b to a.
- **strcat(a,b)** – Expects two strings and concatenated result is copied back to a.
- **strchr(a,ch)** – Expects string and a character to be found in string. Returns the address of the matched character in a given string if found. Else, NULL is returned.
- **strcmp(a,b)** – Compares whether content of array a is same as array b. If a==b, returns 0. Returns 1, if array a has lexicographically higher value than b. Else, -1.

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User defined String functions

- Start with iterative solution
- Usage of pointer arithmetic operations
- Usage of recursion to get the solution for few of the below functions
 1. my_strlen()
 2. my_strcpy()
 3. my_strcmp()
 4. my_strchr()
 5. my_strcat()

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Error Demonstration

1. `char * name[10] ; // declaring an array of 10 pointer pointing each one to a char`
`char name[10];`
2. `name = "choco"; // Cannot assign a string by using the operator =`
`char name[10] = "choco" OR use strcpy()`
3. `printf("%s\n", *name);`
Provide only the address of the first element of the string
4. Coding examples to demo the error caused while applying built-in string functions on strings without specifying `'\0'` at the end of the string



THANK YOU

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