## UCS 2201 Fundamentals and Practice of Software Development A5: Strings in C

Batch 2021-2024

Academic Year 2021-2022 Even

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## Learning Outcome :

To be proficient in handling strings in C

- a) string operations
- b) passing strings to a function

To learn modular and incremental programming.

Write the algorithm and solve the following problems by implementing in C. (CO7, K3, 1.3.1, 1.4.1, 2.1.2, 2.1.3, 2.4.3, 3.2.2, 3.4.3, 4.1.2, 4.2.1, 5.2.2, 13.2.1, 13.3.2, 13.4.2, 14.2.1, 14.2.2)

1. Implement any three of the following functions. Write the required functions such as strlen(str), isUpper (ch), toLower (ch), toUpper (ch) without using library functions. You are encouraged to implement all the functions.

a. strcat	(str1, str2)	Appends str2 to str1
b.strncpy	(dest, src, n)	Copies up to n characters from src to dest string
c. strchr	(str1, ch)	Scans the string str1 for the first occurrence of the character
		ch and returns the position
d.strset	(str1, ch)	Sets all characters in the string str1 to the character ch
e. strcmpi	(str1, str2)	Compares str1 and str2 ignoring the case sensitivity and
		returns -1/0/1
f. strncat	(dest, src, n)	Copies atmost n characters of src to the end of dest string

## 2. Comma separated currency:

Comma separators are used while writing the Indian currency value. The Indian numbering system groups the rightmost three digits together (until the hundreds place), and thereafter groups by sets of two digits.

Write a function in C format-rupee that takes a non-negative number and returns the comma separated currency value. Your function should convert the number to a string, add commas, add a prefix "Rs.", and add decimals for paisa ".00".

format-rupee(1500000) should return Rs.15,00,000.00

format-rupee(5004) should return Rs.5,004.00

format-rupee(155) should return Rs.155.00

format-rupee(14500000) should return Rs.1,45,00,000.00

format-rupee(0) should return Rs.-

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If you try to solve problems yourself, then you will learn many things automatically.

Spend few minutes and then enjoy the excitement of problem solving.