

A5: Strings in C

Academic Year 2021-2022 Even

Learning Outcome :

a) string operations

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)

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|------------|----------------|---|
| 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 |

- 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.-

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.

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