National Institute of Technology Calicut
Department of Computer Science and Engineering
Third Semester B. Tech.(CSE)
CS2092D Programming Laboratory
Assignment 7 Modification

Naming Conventions for Submission

The source codes must be named as:

ASSG7_<ROLLNO>_<FIRST-NAME>_MOD.c

(For example: *ASSG1_BxxyyyyCS_LAXMAN_1.c*). If you do not conform to the above naming conventions, your submission might not be recognized by our automated tools, and hence will lead to a score of 0 marks for the submission. So, make sure that you follow the naming conventions.

Standard of Conduct

- Violation of academic integrity will be severely penalized. Each student is expected to adhere to high standards of ethical conduct, especially those related to cheating and plagiarism. Any submitted work MUST BE an individual effort. Any academic dishonesty will result in zero marks in the corresponding exam or evaluation and will be reported to the department council for record keeping and for permission to assign F grade in the course. The department policy on academic integrity can be found at: http://cse.nitc.ac.in/sites/default/files/Academic-Integrity_new.pdf.

QUESTION

1. As a computer programmer you develop a new compiler, As a new young programmer you would like to mix up things and experiments to evaluate some interesting results. To achieve this you want to create a function called SHOW(). This function will take an infix expression string as input and print the postfix expression string equivalent, but with a new precedence and some new symbols. The new precedence is as follows:

Symbol	Precedence	Associativity
%	10	Left to right
#	10	Left to right
+	9	Left to right
-	9	Left to right
*	7	Left to right
/	7	Left to right
^	6	Left to right

The new symbols are % and #, with a precedence of 10.Higher the precedence higher is value in table. You want to test your SHOW() function with some interesting results, so you ask me to create some infix expressions that will produce interesting postfix expressions with the new precedence.

Here are some examples of infix expressions that you might want to test:

Infix Expression	Postfix Expression
a + b * c	a b + c *
(a * b) + c	a b * c +
a ^ b % c	a b c %

Input Format:

- Single line containing the Infix expression (length ¡=40) which could be consist of characters and integers both including arithmetic operators but chose single length character/digit in the expression (a-z,A-Z,0-9,%,,+,-,*, /, ^).

1

Output Format:

- Single line containing the postfix expression and every character is space separated.

Sample Input:
5 ^ b % C

Sample Output:
5 b C % ^