



University of Engineering & Management, Kolkata
Department of Computer Science and Engineering
Compiler Design Laboratory
List of Experiments

Week 1

1. Write a C program to check if a user given string is a valid identifier or not?
2. Write a C program to check if a user given C program statement is a valid Comment or not?

Week 2

3. Write a C program to read a program written in a file and remove all comments. After removing all comments, rewrite the program in a separate file.
4. Write a C program to convert an infix statement into a postfix statement.

Week 3

5. Write a C program to evaluate an arithmetic expression which is given as a string. Consider the input has no parentheses and contains the following operators only:
+, -, *, /
6. Write a Lex Program to count the number of vowels and consonants in a given string

Week 4

7. Write a Lex Program to count the number of characters, words, spaces, end of lines in a given input file.
8. Write a Lex Program to count no of: a) +ve and -ve integers b) +ve and -ve fractions

Week 5

9. Write a Lex Program to count the no of comment line in a given C program. Also eliminate them and copy that program into separate file.
10. Write a Lex Program to count the no of 'scanf' and 'printf' statements in a C program. Replace them with 'readf' and 'writef' statements respectively

Week 6

11. Write a Lex Program to recognize a valid arithmetic expression and identify the identifiers and operators present. Print them separately.
12. Write a Lex Program to recognize whether a given sentence is simple or compound.

Week 7

13. Write a Lex Program to recognize and count the number of identifiers in a given input file.
14. Write a YAAC Program to test the validity of a simple expression involving operators +, -, * and /

Week 8

15. Write a YAAC Program to recognize nested IF control statements and display the levels of nesting.

Week 9

16. Write a YAAC Program to check the syntax of a simple expression involving operators +, -, * and /
17. Write a YAAC Program to evaluate an arithmetic expression involving operating +, -, * and /

Week 10

18. Write a YAAC Program to recognize a valid variable, which starts with a letter, followed by any number of letters or digits.

Week 11

19. Write a YAAC Program to recognize strings 'aaab', 'abbb', 'ab' and 'a' using grammar (an b n , n>=0)

Week 12

20. Write a YAAC Program to recognize the grammar (an b, n>=10)