

## System Programming Assignment 4 : Lexical Analyzer

- \* Aim : Write a program to implement Lexical Analyser for subset of C
- \* Objective : To understand the role of Lexical analyser
- \* Outcomes : Student should have understood the design & implementation of lexical analyser.
- \* Input :
  - i) Source File
  - ii) Terminal Symbol Table
- \* Output :
  - i) Symbol table
  - ii) Literal Table
  - iii) Universal Table
- \* Theory :
  - Lexical analysis is the process of converting a sequence of characters into a sequence of tokens.
  - Regular expressions define the set of possible character sequences used to form individual tokens.
  - Lexical analyser reads in a stream of characters, identifies lexemes in the stream and categorizes them into tokens.



## \* Algorithm :

- 1) Start
- 2) Declare variables & file pointers
- 3) Display input program
- 4) Separate keyword in program
- 5) Display header file of input program
- 6) Separate operators
- 7) Print punctuation marks
- 8) Print constants
- 9) Print identifiers
- 10) Stop

\* Conclusion : Thus we have implemented lexical analyser for subset of C.