SSN COLLEGE OF ENGINEERING, KALAVAKKAM
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Compiler Design Lab – CS6612
Programming Assignment 8 – Construction of DAG for the input TAC sequences

Date of Assignment: 06.03.2017 **Due Date: 13.03.17 & 15.03.17**

The objective of this assignment is to construct Directed Acylic Graph (DAG) from a set of Three Address Code (TAC) statements. Read each statement to construct a subtree that takes the operator as the root and the operands as its children and consider left end variable as label to the root. For example, create sub tree with '*' as root with children 4 and i and attach label t1 for '*' node for the TAC statement t1=4*I, While creating a node, check if the node exists already. If it does not exists, create a new node, otherwise utilize the existing node.

Example TAC Sequence

(1) t1=4*i
(2) t2=a[t1]
(3) t3=4*i
(4) t4=b[t3]
(5) t5=t2*t4
(6) t6=prod+t5
(7) prod=t6
(8) t7=i+1
(9) i=t7

DAG Representation of the Example TAC Sequence