

SSN COLLEGE OF ENGINEERING, KALAVAKKAM
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Compiler Lab – UCS 2702

Programming Assignment-6 - Generate intermediate code using Lex and Yacc

Tools

Develop an intermediate code generator to generate three address code for the following statements by writing suitable syntax directed translation rules

1. Assignment statements
2. Boolean expressions

INPUT

$a := b * -c + b * -c$

$x := a < b \text{ or } c < d \text{ and } e < f$

OUTPUT

$t1 = -c$

$t2 = b * t1$

$t3 = -c$

$t4 = b * t3$

$t5 = t2 + t4$

$a = t5$

100: if $a < b$ goto 103

101: $t1 := 0$

102: goto 104

103: $t1 := 1$

104: if $c < d$ goto 107

105: $t2 := 0$

106: goto 108

107: $t2 := 1$

108: if $e < f$ goto 111

109: $t3 := 0$

110: goto 112

111: $t3 := 1$

112: $t4 := t2 \text{ and } t3$

113: $t5 := t1 \text{ or } t4$

114: $x=t5$