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Date Page

1. a + a * (b - c) + (b - c) * d

DAG

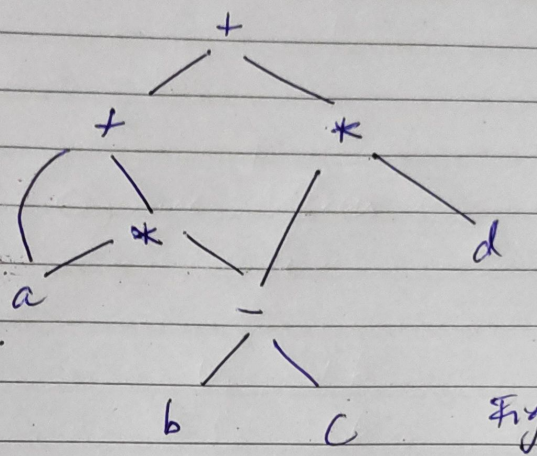

Fig 1: DAG

Three-Address Code

1 $t_1 = b - c$
2 $t_2 = a * t_1$
3 $t_3 = a + t_2$
4 $t_4 = t_1 * d$
5 $t_5 = t_3 + t_4$

	op	arg 1	arg 2	result
1	-	b	c	t_1
2	*	a	t_1	t_2
3	+	a	t_2	t_3
4	*	t_1	d	t_4
5	+	t_3	t_4	t_5

Fig 2: Quadruples


d = 4
ans = 0
ans = -4
shadowleaf@shadowleaf-manjaro ../Downloads/demo
java -jar CodeConvert.jar
Instruction File Path: input.txt
Input File Content:
ans = (a + a*(b - c) + (b - c)*d)
Small minds
Unoptimized 3-Address Code:
t_1 = b - c
t_2 = a * t_1
t_3 = a + t_2
t_4 = t_1 * d
ans = t_3 + t_4
Code after 1 optimization round:
t_1 = b - c
t_2 = a * t_1
t_3 = a + t_2
t_4 = t_1 * d
ans = t_3 + t_4
shadowleaf@shadowleaf-manjaro ../Downloads/demo