**COMPILER DESIGN LAB**

NAME: M. Kesava Reddy

ROLL NO: 21010141

BRANCH: CSE

**1. Write a program to implement three address code**

#include <stdio.h>

int temp\_counter = 1;

char\* generate\_temp() {

static char temp[5];

snprintf(temp, sizeof(temp), "t%d", temp\_counter++);

return temp;

}

void generate\_code(char\* op, char\* arg1, char\* arg2, char\* result) {

printf("%s = %s %s %s\n", result, arg1, op, arg2);

}

int main() {

// Example expression: a = b + c \* d

char\* a = "a";

char\* b = "b";

char\* c = "c";

char\* d = "d";

char\* temp1 = generate\_temp();

char\* temp2 = generate\_temp();

generate\_code("\*", c, d, temp1);

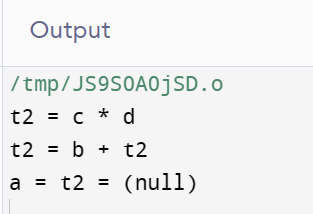
generate\_code("+", b, temp1, temp2);

generate\_code("=", temp2, NULL, a);

return 0;

}

**OUTPUT :**

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