Experiment-15

1. Write a C program to implement the back end of the compiler.

Program:

#include <stdio.h >

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#include <string.h >

int main() {

char icode[10][30], str[20], opr[10];

int i = 0;

printf("\n Enter the set of intermediate code (to display enter the exit):\n");

do

{

scanf("%s", icode[i]);

}

while (strcmp(icode[i++], "exit") != 0);

printf("\n target code generation");

i = 0;

do {

strcpy(str, icode[i]);

switch (str[3]) {

case '+':

strcpy(opr, "ADD ");

break;

case '-':

strcpy(opr, "SUB ");

break;

case '\*':

strcpy(opr, "MUL ");

break;

case '/':

strcpy(opr, "DIV ");

break;

}

printf("\n\tMov %c,R%d", str[2], i);

printf("\n\t%s%c,R%d", opr, str[4], i);

printf("\n\tMov R%d,%c", i, str[0]);

}

while (strcmp(icode[++i], "exit") != 0);

return 0;

}

Output:

