Implement the back end of the compiler using C program

PROGRAM :

#include <stdio.h>

#include <conio.h>

#include <stdlib.h>

#include <string.h>

void main()

{

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

int i = 0;

printf("Enter the set of intermediate code (terminate by 'exit'): ");

do

{

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

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

printf("\nTarget code generation");

printf("\n\*\*\*\*\*\*\*\*\*");

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;

default:

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);

}

OUTPUT :

Enter the set of intermediate code :

a=a\*b

c=f\*h

g=a\*h

f=Q+W

t=q-j

target code generation

Mov a,R0

MUL b,R0

Mov R0,a

Mov f,R1

MUL h,R1

Mov a,R2

MUL h,R2

Mov Q,R3

ADD w,R3

Mov R3,f

Mov q,R4

SUB j,R4

Mov R4,t