**EX-4:**

**PROGRAM:**

#include<stdio.h>

#include<stdio.h>

#include<string.h>

void main()

{

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

int i=0;

printf("\n Enter the set of intermediate code (terminated by exit):\n");

do

{

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

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

printf("\n Target 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;

}

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]);

printf("\n");

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

}

**OUTPUT:**

D:\Vishnu Clg\6th sem\Lab\Toc>gcc ex4.c

D:\Vishnu Clg\6th sem\Lab\Toc>a.exe

Enter the set of intermediate code (terminated by exit):

v=i\*s

h=8-4

n=u+v

exit

Target code generation

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Mov i,R0

MUL s,R0

Mov R0,v

Mov 8,R1

SUB 4,R1

Mov R1,h

Mov u,R2

ADD v,R2

Mov R2,n