

Department of Computer

Engineering Academic

Term: Jan-Apr 2022

Class : T.E Computer Sem -VII

Subject: System Programming and Compiler Construction

Practical No:	7
Title:	Intermediate Code Generation OR Code Generation Phase
Date of Performance:	11/04/2022
Date of Submission:	11/04/2022
Roll No:	8940
Name of the Student:	Warren Fernandes

Evaluation:

Sr. No	Rubric	Grade
1	On time Completion & Submission (2)	
2	Output (3)	
3	Code Optimization (3)	
4	Knowledge of the topic (2)	
5	Total (10)	

Signature of the Teacher:

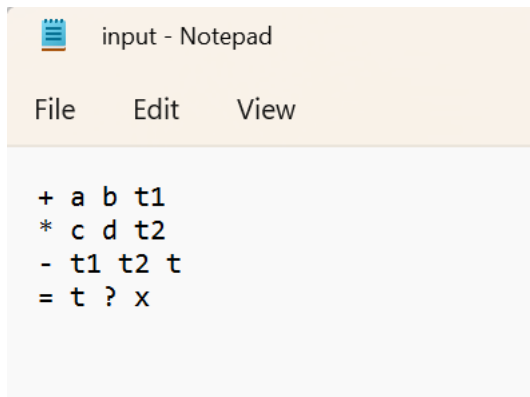
CODE

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
char op[2],arg1[5],arg2[5],result[5];
void main()
{
    FILE *fp1,*fp2;
    fp1=fopen("input.txt","r");
    fp2=fopen("output.txt","w");
    while(!feof(fp1))
    {

        fscanf(fp1,"%s%s%s%s",op,arg1,arg2,result);
        if(strcmp(op,"+")==0)
        {
            fprintf(fp2,"\nMOV R0,%s",arg1);
            fprintf(fp2,"\nADD R0,%s",arg2);
            fprintf(fp2,"\nMOV %s,R0",result);
        }
        if(strcmp(op,"*")==0)
        {
            fprintf(fp2,"\nMOV R0,%s",arg1);
            fprintf(fp2,"\nMUL R0,%s",arg2);
            fprintf(fp2,"\nMOV %s,R0",result);
        }
        if(strcmp(op,"-")==0)
        {
            fprintf(fp2,"\nMOV R0,%s",arg1);
            fprintf(fp2,"\nSUB R0,%s",arg2);
            fprintf(fp2,"\nMOV %s,R0",result);
        }
        if(strcmp(op,"/")==0)
        {
            fprintf(fp2,"\nMOV R0,%s",arg1);
            fprintf(fp2,"\nDIV R0,%s",arg2);
            fprintf(fp2,"\nMOV %s,R0",result);
        }
        if(strcmp(op,"")==0)
        {
            fprintf(fp2,"\nMOV R0,%s",arg1);
            fprintf(fp2,"\nMOV %s,R0",result);
        }
    }
}
```

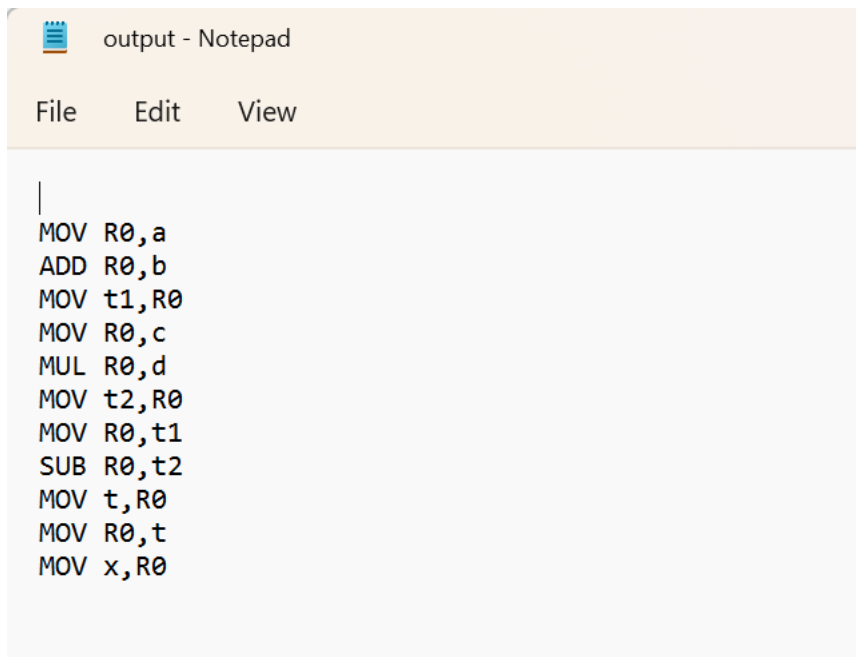
```
}  
}  
fclose(fp1);  
fclose(fp2);  
getch();  
}
```

INPUT



```
input - Notepad  
File Edit View  
  
+ a b t1  
* c d t2  
- t1 t2 t  
= t ? x
```

OUTPUT



```
output - Notepad  
File Edit View  
  
|  
MOV R0,a  
ADD R0,b  
MOV t1,R0  
MOV R0,c  
MUL R0,d  
MOV t2,R0  
MOV R0,t1  
SUB R0,t2  
MOV t,R0  
MOV R0,t  
MOV x,R0
```