WEEK-7: Write a program to generate intermediate code.

```c
#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();
 }
}
```

+ a b t1
* c d t2
- t1 t2 t
= t ? x

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