TWO PASS ASSWMBLER-PASS 2

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
void main()
{
 FILE *f1,*f2,*f3,*f4;
 char label[20],opcode[20],operand[20];
 char op_label[20],op_opcode[20];
 char sym_label[20],sym_loc[20];
 char object_code[20];
 f1 = fopen("intermediate.txt","r");
 f2 = fopen("symbtab.txt","r");
 f3 = fopen("optab.txt","r");
 f4 = fopen("opcode.txt","w");
 while(fscanf(f1,"%s%s%s",label,opcode,operand) == 3)
 {
 strcpy(object_code,"----");
 while(fscanf(f3,"%s%s",op_label,op_opcode) == 2)
 {
 if(strcmp(opcode,op_label) == 0)
 {
 strcpy(object_code,op_opcode);
 }
 }
 while(fscanf(f2,"%s%s",sym_label,sym_loc) == 2)
 {
 if(strcmp(object_code,"----") != 0 && strcmp(operand,sym_label) == 0)
 {
 strcat(object_code,sym_loc);
 }
 }
 rewind(f3);
 rewind(f2);
 fprintf(f4,"%s\n",object_code);
 }
 fclose(f1);
 fclose(f2);
 fclose(f3);
 fclose(f4);
 printf("----Object Codes for each statements----\n");
 f4 = fopen("opcode.txt","r");
 while(fscanf(f4,"%s",object_code) == 1)
 {
 printf("%s\n",object_code);
 }
```

fclose(f4);

}

```
aswin@Aswin:~/SS Lab$ gcc -o asw pass2.c
aswin@Aswin:~/SS Lab$ ./asw
----Object Codes for each statements----
----
00400C
014006
----
----
----
aswin@Aswin:~/SS Lab$ ▯
```

INTERMEDUATE.txt

```
1    TEST  START 4000
2    FIRST LDA   FIVE
3    ----  STA   ALPHA
4    ALPHA RESW  2
5    FIVE  WORD  5
6    ----  END   START
```

Symbtab.txt

```
1    FIRST   4000
2    ALPHA   4006
3    FIVE    400C
4
```

Optab.txt

```
1    LDA      00
2    STA      01
```

Opcode.txt

```
1    - - - -
2    00400C
3    014006
4    - - - -
5    - - - -
6    - - - -
7    |
```