

Surya Narayanan

Roll no 48.

```
#include <stdio.h>
```

```
#include <conio.h>
```

```
#include <string.h>
```

```
struct macro {
```

```
    char lab[10];
```

```
    char op[10];
```

```
    char oper[10];
```

```
};
```

```
void main() {
```

```
    char label[10], opcode[10], operand[10],
```

```
        newlabel[10], newoperand[10];
```

```
    char macroname[10];
```

```
    int i, lines;
```

```
    FILE *f1, *f2, *f3;
```

```
    f1 = fopen("MACIN.DAT", "r");
```

```
    f2 = fopen("MACOUT.DAT", "w");
```

```
    f3 = fopen("DEFTAB.DAT", "w");
```

```
    fscanf(f1, "%s%s%s", label, opcode,
```

```
        operand);
```

```
    while (strcmp(opcode, "END") != 0) {
```

```

if (strcmp(opcode, "macro") == 0) {
    strcpy(macroname, label);
    fscanf(f1, "%s%s%s", label, opcode,
           operand);
    lines = 0;
    while (strcmp(opcode, "macro") != 0)
    {
        fprintf(f3, "%s\t%s\t%s\n",
               label, opcode, operand);
        strcpy(d[lines].lab, label);
        strcpy(d[lines].opc, opcode);
        strcpy(d[lines].over, operand);
        fscanf(f1, "%s%s%s", label,
               opcode, operand);
        lines++;
    }
}

else if (strcmp(opcode, macroname)
         == 0) {
    for (i = 0; i < lines; i++) {
        fprintf(f2, "%s\t%s\t%s\n", d[i].lab,
        d[i].opc, d[i].over);
    }
}

```

else {

fprintf(f1, "%s %s %s %s\n",

label, opcode, operand);

fscanf(f1, "%s %s %s", label, ~~opcode~~

opcode, operand);

}

fprintf(f2, "%s %s %s\n", label,

opcode, operand);

fclose(f1);

fclose(f2);

fclose(f3);

printf("FINISHED");

}