

eclipse-workspace - Assembler2/src/Pass2.java - Eclipse IDE

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Quick Access

Pa... Obj.java *Pass1.java Output.txt Sample.txt Pass2.java

asd
Assembler1
Assembler2
JRE System Lit
src
(default pa
Obj.java
Pass2_g
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Macro1
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page replacment
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Remove_stopwar
Scheduling
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```
1 import java.io.*;
3
4 public class Pass2 {
5     static Obj[] symb_table=new Obj[10];
6     static Obj[] literal_table=new Obj[10];
7     static int symb_found=0;
8     public static void main(String[] args) throws IOException
9     {
10         // TODO Auto-generated method stub
11         Scanner sc = new Scanner(System.in);
12         System.out.println("ENTER TOTAL NUMBER OF SYMBOLS : ");
13         int total_symb = sc.nextInt();
14         int pos,num;
15         for(int i=0 ; i<total_symb; i++)
16         {
17             symb_table[i]=new Obj("",0);
18             System.out.println("ENTER SYMBOL NAME : ");
19             symb_table[i].name=sc.next();
20             System.out.println("ENTER SYMBOL ADDRESS : ");
21             symb_table[i].addr=sc.nextInt();
22         }
23         System.out.println("ENTER TOTAL NUMBER OF LITRALS : ");
24         int total_ltr = sc.nextInt();
25         for(int i=0 ; i<total_ltr; i++)
26         {
27             literal_table[i]=new Obj("",0);
28             System.out.println("ENTER LITERAL NAME : ");
29             literal_table[i].name=sc.next();
30             System.out.println("ENTER LITERAL ADDRESS : ");
31             literal_table[i].addr=sc.nextInt();
32         }
33
34         System.out.println("\n*****SYMBOL TABLE*****");
35         System.out.println("\nSYMBOL\tADDRESS");
```

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36 for(int i=0;i<total_symb;i++)
37 System.out.println(symb_table[i].name+"\t"+symb_table[i].addr);
38
39 System.out.println("\n*****LITERAL TABLE*****");
40 System.out.println("\nIndex\tLITERAL\tADDRESS");
41 for(int i=0;i<total_ltr;i++)
42 System.out.println((i+1) +"\t"+literal_table[i].name+"\t"+literal_table[i].addr);
43
44 BufferedReader br2=new BufferedReader(new FileReader("C:\\Users\\SHARAD\\eclipse-workspace\\Assembler2\\src\\output.txt"));
45 String line;
46 boolean symbol_error=false,undef_mnemonic=false;
47 System.out.println("\n*****OUTPUT FILE*****\n\n");
48 lab: while((line = br2.readLine())!=null)
49 {
50 String[] token_list=line.split("\\s+",5);
51 symbol_error=undef_mnemonic=false;
52 lab1:for(String token:token_list)
53 {
54 if(token.length()>0)
55 {
56 pos = -1;
57 if(token.matches("----"))
58 {
59 System.out.print("\t---");
60 undef_mnemonic=true;
61 }
62 else if(token.matches("[0-9]+"))//LOCATION COUNTER
63 System.out.print("\n\n"+token);
64 else
65 {
66 String letters = token.replaceAll("[^A-Za-z]+", "");
67 num = Integer.parseInt(token.replaceAll("[^0-9]+", ""));
68
69 if(token.matches("\\\\([0-9]+\\\\"))

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```
70         System.out.print("\t"+num);
71     else
72     {
73         switch (letters.toUpperCase()) {
74             case "S" : if(symb_table[num-1].addr==0)
75                 {
76                     System.out.print("\t---");
77                     symbol_error=true;
78                 }
79             else
80                 System.out.print("\t"+symb_table[num-1].addr);
81             break;
82             case "L" : System.out.print("\t"+literal_table[num-1].addr);
83             break;
84             case "AD" : System.out.print("\n");
85             continue lab;
86             case "DL" :
87                 switch (num){
88                     case 1: System.out.print("\n");
89                     continue lab;
90                     case 2: System.out.print("\t 00 \t 00");
91                     }continue lab1;
92             case "C" : System.out.print("\t"+num);
93             break;
94             default: System.out.print("\t"+"00"+num);
95         }
96     }
97 }
98 }
99 }
100 if(symbol_error)
101     System.out.print("\n\n*****SYMBOL IS NOT DEFINED*****");
102 if(undef_mnemonic)
103     System.out.print("\n\n*****INVALID MNEMONIC *****");
```

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eclipse-workspace - Assembler2/src/Pass2.java - Eclipse IDE

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```
104     }  
105     int[] flag=new int[total_symb];  
106     for(int i=0;i<total_symb;i++)  
107     {  
108         symb_found=0;  
109         for(int j=0;j<total_symb;j++)  
110             if(symb_table[i].name.equalsIgnoreCase(symb_table[j].name) && flag[j]==0)  
111             {  
112                 symb_found++;  
113                 flag[i]=flag[j]=1;  
114             }  
115             if(symb_found>1)  
116                 System.out.print("\n\n***** '"+symb_table[i].name+"' IS DUPLICATE SYMBOL*****");  
117     }  
118     br2.close();  
119     sc.close();  
120 }  
121 }  
122 /*-----INPUT-----  
123 ENTER TOTAL NUMBER OF SYMBOLS :  
124 5  
125 ENTER SYMBOL NAME :  
126 up  
127 ENTER SYMBOL ADDRESS :  
128 102  
129 ENTER SYMBOL NAME :  
130 a  
131 ENTER SYMBOL ADDRESS :  
132 109  
133 ENTER SYMBOL NAME :  
134 b  
135 ENTER SYMBOL ADDRESS :  
136 121  
137 ENTER SYMBOL NAME :
```

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```

/*-----INPUT-----
ENTER TOTAL NUMBER OF SYMBOLS :
5
ENTER SYMBOL NAME :
up
ENTER SYMBOL ADDRESS :
102
ENTER SYMBOL NAME :
a
ENTER SYMBOL ADDRESS :
109
ENTER SYMBOL NAME :
b
ENTER SYMBOL ADDRESS :
121
ENTER SYMBOL NAME :
c
ENTER SYMBOL ADDRESS :
122
ENTER SYMBOL NAME :
next
ENTER SYMBOL ADDRESS :
102
ENTER TOTAL NUMBER OF LITERALS :
5
ENTER LITERAL NAME :
5
ENTER LITERAL ADDRESS :
102
ENTER LITERAL NAME :
8
ENTER LITERAL ADDRESS :
105
ENTER LITERAL NAME :
8
ENTER LITERAL ADDRESS :
106
ENTER LITERAL NAME :
7
ENTER LITERAL ADDRESS :
132
ENTER LITERAL NAME :
8
ENTER LITERAL ADDRESS :
133

```

Input file :output.txt

```

      (AD,1)      (C,100)
100   (IS,4)      (RG,1)      (C,05)

```

```

101  (IS,4)      (RG,2)      (C,10)
102  (S,1) (IS,1)      (RG,1)      (RG,2)
103  (IS,5)      (S,2) (L,1)
104  (IS,3)      (RG,1)      (S,1)
105  (AD,3)      (C,102)
102  (AD,5)      (DL,2)      (C,5)
103  (IS,5)      (S,3) (L,2)
104  (IS,5)      (S,4) (L,3)
105  (AD,5)      (DL,2)      (C,8)
106  (DL,2)      (C,8)
107  (IS,5)      (S,2) (L,4)
108  (IS,5)      (S,3) (L,5)
109  (DL,1)      (C,02)
111  (DL,2)      (C,10)
112  (DL,1)      (C,09)
121  (S,5) (AD,4)      (S,1)
122  (AD,2)
      (DL,2)      (C,7)
123  (DL,2)      (C,8)
124

```

Obj.java

```

public class Obj {
    String name;
    int addr;
    Obj(String nm, int address)
    {
        this.name=nm;
        this.addr=address;
    }
}

```

Pooltable.java

```

public class Pooltable {
    int first,total_literals;
    public Pooltable(int f, int l) {
        // TODO Auto-generated constructor stub
        this.first=f;
        this.total_literals=l;
    }
}

```