

```
import java.io.*;
class P1
{
    public static void main(String ar[])throws IOException
    {
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        int i;
        String a[][]={{","","START","101",""},{","", "MOVER", "BREG", "ONE"}, {"AGAIN", "MULT", "BREG", "TERM"}, {"","", "MOVER", "CREG", "TERM"}, {"","", "ADD", "CREG", "N"}, {"","", "MOVEM", "CREG", "TERM"}, {"" , "DS", "2", ""}, {"RESULT", "DS", "2", ""}, {"" , "ONE", "DC", "1", ""}, {"" , "TERM", "DS", "1", ""}, {"","", "END", "", ""}};
        int lc=Integer.parseInt(a[0][2]);
        String st[][]=new String[5][2];
        int cnt=0,l;
        for (i=1;i<11;i++)
        {
            if (a[i][0]!="")
            {
                st [cnt][0]=a[i][0];
                st[cnt][1]=Integer.toString(lc);
                cnt++;
                if(a[i][1]=="DS")
```

```

{
int d=Integer.parseInt(a[i][2]);
lc=lc+d;
}
else
{
lc++;
}
}
else
{
lc++;
}
System.out.print("****SYMBOL TABLE****\n");
System.out.println("_____");
for(i=0;i<5;i++)
{
for(cnt=0;cnt<2;cnt++)
{
System.out.print(st[i][cnt]+\t");
}
System.out.println();
}
String
inst[]{"STOP","ADD","SUB","MULT","MOVER","MOVEM","COMP","BC","DIV","READ","PRINT"};
String reg[]{"NULL","AREG","BREG","CREG","DREG"};
int op[][]=new int[12][3];
int j,k,p=1,cnt1=0;
for(i=1;i<11;i++)

```

```
{  
for(j=0;j<11;j++)  
{  
if(a[i][1].equalsIgnoreCase(inst[j]))  
{  
op[cnt1][0]=j;  
}  
else  
if(a[i][1].equalsIgnoreCase("DS"))  
{  
p=Integer.parseInt(a[i][2]);  
}  
else if(a[i][1].equalsIgnoreCase("DC"))  
{  
op[cnt1][2]=Integer.parseInt(a[i][2]);  
}  
}  
for(k=0;k<5;k++)  
{  
if(a[i][2].equalsIgnoreCase(reg[k]))  
{  
op[cnt1][1]=k;  
}  
}  
for(l=0;l<5;l++)  
{  
if(a[i][3].equalsIgnoreCase(st[l][0]))  
{  
int mn=Integer.parseInt(st[l][1]);  
}
```

```
op[cnt1][2]=mn;
}
}
cnt1=cnt1+p;
}

System.out.println("\n *****OUTPUT*****\n");
System.out.println("*****MOT TABLE*****");
int dlc=Integer.parseInt(a[0][2]);
for(i=0;i<12;i++)
{
System.out.print(dlc++"\t");
for(j=0;j<3;j++)
{
System.out.print(" "+op[i][j]+" ");
}
System.out.println();
}
System.out.println("");
}
```

```
java -cp /tmp/5DRJtFicZk/P1
```

```
***SYMBOL TABLE****
```

```
AGAIN 102
```

```
N 106
```

```
RESULT 108
```

```
ONE 110
```

```
TERM 111
```

```
*****OUTPUT*****
```

```
*****MOT TABLE*****
```

```
101 4 2 110
```

```
102 3 2 111
```

```
103 4 3 111
```

```
104 1 3 106
```

```
105 5 3 111
```

```
106 0 0 0
```

```
107 0 0 0
```

```
108 0 0 0
```