**Macro Processor Program in Java**

import java.io.\*;  
import java.io.File;  
import java.io.FileNotFoundException;  
import java.util.Scanner;  
class macro  
{  
public static void main(String args[])throws IOException  
{  
int MDTC=1;  
int MNTC=1;  
int index=1;  
int macroindex=0;  
String arg[]=new String[10];  
String mname[]=new String[10];  
String MNT [][]=new String[10][10];  
String MDT [][]=new String[10][10];  
String output =new Scanner(new File(“file1.txt”)).useDelimiter(“\\Z”).next();  
String result[]=output.split(“\n”);  
String result1[]=output.split(“[,\\s\\?]”);  
for(int k=0;k<result1.length;k++)  
{  
if(result1[k].equals(“MACRO”)||result1[k].equals(“macro”))  
{  
mname[macroindex]=result1[k+2];  
macroindex++;  
}  
}  
System.out.println(“\nMACRO NAME TABLE\n—————————————–“);  
System.out.println(“VALUE OF MDTC\tMNTC\tNAME”);  
for(int k=0;k<macroindex;k++)  
{  
System.out.println(“\t”+MDTC+”\t”+MNTC+”\t”+mname[k]);  
MNTC=MNTC+1;  
}  
System.out.println(“\n\nMACRO DEF TABLE\n—————————————–“);  
System.out.println(“INDEX\tCARD”);  
for(int i=1;i<result.length;i++)  
{  
System.out.println(MDTC+”\t”+result[i]);  
MDTC=MDTC+1;  
}  
System.out.print(“\n\nARGUMENT LIST ARRAY\n——————————–“);  
for(int k=3;k<result1.length;k++)  
{  
if(result1[k].equals(mname[0]))  
{  
arg[0]=result1[k+1];  
arg[1]=result1[k+2];  
arg[2]=result1[k+3];  
}  
}  
System.out.println(“\nINDEX\t ARGUMENTS”);  
System.out.println(“\n”+index+”\t”+arg[0]+”\n”+(index+1)+”\t”+arg[1]+”\n”+(index+2)+”\t”+arg[2]+”\n”);  
System.out.print(“\n\nOUTPUT PROGRAM AFTER CALL\n——————————–“);  
for(int k=6;k<result1.length;k++)  
{  
for(int i=3;i<6;i++)  
{  
if(result1[k].equals(result1[i]))  
{  
result1[k]=arg[i-3];  
}}}  
for(int k=6;k<result1.length;k++)  
{  
if(result1[k].equals(“MEND”))  
{  
System.out.print(“END”);  
break;  
}  
if(result1[k].equals(“”))  
System.out.println();  
else  
System.out.print(result1[k]+” “);  
}}}

File1.txt  
MACRO  
ADDITION &arg1,&arg2,&arg3  
MOV ax,&arg1  
ADD ax,&arg2  
ADD ax,&arg3  
MEND  
ADDITION 34,45,44  
END

/\*  
OUTPUT:

MACRO NAME TABLE  
—————————————–  
VALUE OF MDTC MNTC NAME  
1 1 ADDITION

MACRO DEF TABLE  
—————————————–  
INDEX CARD  
1 ADDITION &arg1,&arg2,&arg3  
2 MOV ax,&arg1  
3 ADD ax,&arg2  
4 ADD ax,&arg3  
5 MEND  
6 ADDITION 34,45,44  
7 END

ARGUMENT LIST ARRAY  
——————————–  
INDEX ARGUMENTS

1 34  
2 45  
3 44  
OUTPUT PROGRAM AFTER CALL  
——————————–  
MOV ax 34  
ADD ax 45  
ADD ax 44  
END \*/