Name : Aakash A. Joshi

Roll no. : 0077

Subject : SPOS

Class : TE Computer

Batch: T4

Assignment no. 4(Macro pass 2)

Code:

```
import java.util.*;
import java.io.*;
public class macro2
{
    public static void main(String args[])
    {

        BufferedReader br,br1,br2;
        OutputStream oo;
        String input=null,input1=null;
        String tt=null;
        String arg=null;
        String macroTokens=null;
        int macroindex[]=new int[10];
        String mnt[]=new String[10];
        int mcount=0,arg_count=0;
        int middlecount=0;
        int index=1;
        int main_enc=0;

        try
        {
            br=new BufferedReader(new FileReader("Input.txt"));
            br1=new BufferedReader(new FileReader("mnt.txt"));
            br2=new BufferedReader(new FileReader("mdt.txt"));
            File f = new File("final_output.txt");
            PrintWriter p = new PrintWriter(f);
            int ii=0;
            while((input = br1.readLine())!=null)
            {
                StringTokenizer st = new StringTokenizer(input,"\t");
                tt=st.nextToken();
                mnt[ii]=tt;
                System.out.println(mnt[ii]);
                ii++;
            }
            while ((input = br.readLine()) != null)
            {
            StringTokenizer st = new StringTokenizer(input," ");
              tt=st.nextToken();
```

```
if(tt.equals("START"))
{
    main_enc=1;
        p.print("START ");
        tt=st.nextToken();
        p.println(tt);
}

else
{
            if(main_enc==1)
        {
            if(input.equals("END"))
            {
                    main_enc=0;
                    p.println("END");
            }
            else
            {
                    StringTokenizer t=new StringTokenizer(input," ");
                    //System.out.println(input);
                    while(t.hasMoreTokens())
                    {


                        macroTokens=t.nextToken();
                        for(int i=0;i<ii;i++)
                        {
                            if(macroTokens.equals(mnt[i]))
                            {
                            int ff=0;
                            //System.out.println("match");
                                    while((input1 = br2.readLine())!=null)
                                            {
                                                    if(input1.equals(mnt[i]))
                                                    {

ff=1;//System.out.println("match");
                                                            continue;
                                                    }

                                                    if(input1.equals("MEND"))
                                                    {
                                                            ff=0;
                                                    }

                                                    if(ff==1)
                                                    {
                                                            p.println(input1);
                                                    }
                                            }
                                    }
```

```
                                        }

                                        if(!(t.hasMoreTokens()) &&
Arrays.asList(mnt).contains(macroTokens)){
                                            //p.println(macroTokens);

                                        }
                                        else if(!(t.hasMoreTokens())){
                                            p.println(macroTokens);

                                        }
                                        else
                                            {
                                                    if
(Arrays.asList(mnt).contains(macroTokens) )
                                                            {System.out.println("hi");}
                                                    else
                                                            p.print(macroTokens+" ");


                                        }


                                    }
                                }

                            }
                        }
                        index++;
                    }
                    p.close();
                }
                catch(Exception e)
                {
                    e.printStackTrace();
                }
            }

}
```

Output:
INCR1
INCR2

Final_output.txt
START 100
MOV AREG A
MOV BREG B
ADD AREG AR0
LDA BREG AR1
MOV CREG =2
MOV DREG =3

```
ADD AREG BREG
A DC 05
B DS 03
END
```