1.Problem Description: In this project i try to use if statements,while and for loops, file and scanner due to obligations that we need to make in this project. The problem is how to take tokens from file and if the file is spam due to 4 obligations. Marking the file as a spam or not there must be writting many codes to achive the result.

2.Problem Solution:Firstly i toke every token in file and .assign each of the tokens to the arrays. So i know every token and its number. After that part, it becomes easy, Just using mathemathic and combine it with for, while loops and if statements the problem became solved.

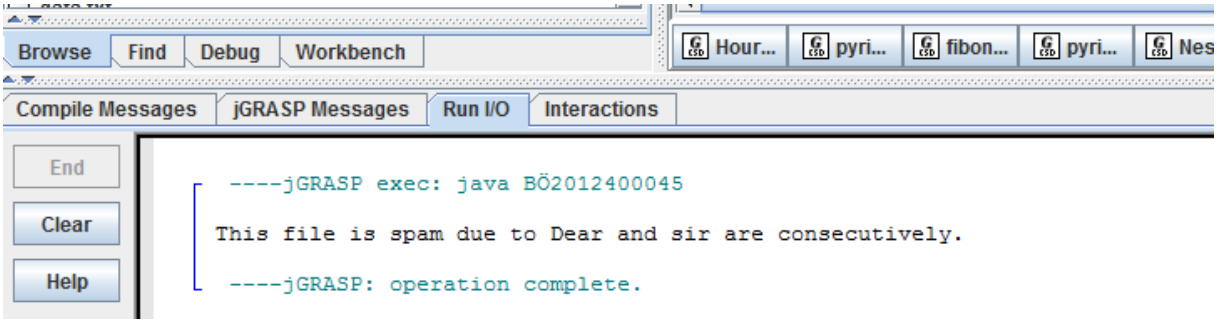
3.Implementation:

```
 1 import java.io.*;    //to reach file
 2 import java.util.*;  //to reach scanner.
 3
 4 public class BÖ2012400045{
 5    public static void main(String[] args) throws FileNotFoundException{
//erase the error.
 6    Scanner input=new Scanner(new File("data.txt"));   //by writing input. we
can reach the file.
 7       int sum=0;  //identified a sum for using it later.
 8       while(input.hasNext()){    //every token is counting while the file has.
 9          input.next();  //pass the token.
10          sum++;   //so we now how many tokens are there.
11       }
12       input.close();       //to open file again this code should be used.
13       input=new Scanner(new File("data.txt"));  //we open the file again.
14
15       String[] word= new String[sum+1];   //word identifed as an array.
16       while(input.hasNext()){    //same process like number 8.
17          for(int i=0; i<sum; i++){
18             word[i]=input.next();   //every word[0 , 1 ,2 ,3..] are identifed
each by each.
19          }
20       }
21       String elli=("");
22       int count=0;      //these variables need to be identifed to use it later.
23       int total=0;
24       for(int a=0; a<sum; a++){
25          String t=word[a];
26          total=0;
27          for(int i=0; i<sum; i++){
28             String b=word[i];
29             if(t.equalsIgnoreCase(b)){    //comparing 2 of all words and if
they are equal, total is adding up by 1.
30                total++;
31             }
32          }
33          if(total>sum/2){  //if total is more than sum/2, it means a word is
used more than%50.
34             count++;
35             elli=t;
36          }
37       }
38       if(count>0){   //by quiting for loop the we know the exact valuse of
```

```
count.
 39          System.out.println("This program is spam due to "+elli+" is appeared
more than %50.");
 40       }
 41
 42
 43          total=0;
 44
 45       for(int i=0; i<sum; i++){
 46          if(word[i].equalsIgnoreCase("apartment")){   //looking every word[i]
if it is equal to apartment or not. if it equals more than one so it is spam.
 47             total++;
 48          }
 49       }
 50          if(total>1){
 51             System.out.println("apartment is appeared more than once.");
 52          }
 53          total=0;
 54
 55       for(int i=0; i<sum; i++){
 56          if(word[i].equalsIgnoreCase("sale")){   //looking every word[i] if it
is equal to sale or not. if it equals more than one so it is spam.
 57             total++;
 58          }
 59       }
 60          if(total>1){
 61             System.out.println("sale is appeared more than once.");
 62          }
 63          total=0;
 64
 65       for(int i=0; i<sum; i++){
 66          if(word[i].equalsIgnoreCase("rent")){   //looking every word[i] if it
is equal to rent or not. if it equals more than one so it is spam.
 67             total++;
 68          }
 69       }
 70          if(total>1){
 71             System.out.println("rent is appeared more than once.");
 72          }
 73          total=0;
 74
 75       for(int i=0; i<sum; i++){
 76          if(word[i].equalsIgnoreCase("money")){   //looking every word[i] if it
is equal to money or not. if it equals more than one so it is spam.
 77             total++;
 78          }
 79       }
 80          if(total>1){
 81             System.out.println("money is appeared more than once.");
 82          }
 83          total=0;
 84
 85       for(int i=0; i<sum; i++){
 86          if(word[i].equalsIgnoreCase("bank")){   //looking every word[i] if it
is equal to bank or not. if it equals more than one so it is spam.
 87             total++;
 88          }
 89       }
 90          if(total>1){
```

```
 91              System.out.println("bank is appeared more than once.");
 92           }
 93
 94        String k=("");
 95        String j=(" and ");     //these variables are also defined to use later
again.
 96        String hey=("");
 97        count=0;              //we reset the count. it equals 0 againg.
 98        for(int i=0; i<sum; i++){
 99           String y=word[i];
100           total=0;
101           for(int a=0; i<sum; i++){
102              String z=word[a];
103              if(y.equals(z)){  //again it counts words and if any word appears
more than %30 we can get it from total.
104                 total++;
105              }
106           hey=y;
107           }
108           if(total>(sum*3)/10){   //if total is more than %30. count is added by
1.
109              count++;
110              k=hey+j;
111
112           }
113        }
114        if(count>2){      //if count is more than 2. we know that, there are at
least 3 words that appear more than %90 total and it is spam.
115           System.out.println(k+" are appeared %30 each.");
116        }
117
118        count=0;    //reseting count.
119        String o=("");    //again variables.
120        String p=("");
121        String hop=("");
122        for(int i=0; i<sum; i++){
123           o=word[i];
124           p=word[i+1];            //by writing p=(word +1) we know 2 words which
are consecutively and if they are these 4 words below which are consecutive, so it
is spam.
125           if(o.equalsIgnoreCase("dear")|| o.equalsIgnoreCase("sir")||
o.equalsIgnoreCase("madam")|| o.equalsIgnoreCase("honorable")){
126              if(p.equalsIgnoreCase("dear")|| p.equalsIgnoreCase("sir")||
p.equalsIgnoreCase("madam")|| p.equalsIgnoreCase("honorable")){
127                 count++;
128                 hop=(o+" and "+p);
129              }
130           }
131        }
132        if(count>0){
133           System.out.println("This file is spam due to "+hop+" are
consecutively.");
134        }
135
136
137     }
138  }
```

4.Output Of The Program:



5.Conclusion: With spending days on making it work correctly, i learn how to use file(import.io.*;) and scanner input and combining them into one form. The other part is became for,if and while that i already know.