

Input.java

```

1 package inout;
2
3 import java.io.File;
4
5
6
7
8
9
10
11
12 public class Input {
13     private SESystem newssystem;
14     private File file;
15
16
17
18     public Input(File f){
19         newssystem=null;
20         file = f;
21     }
22
23     public int calcDays(String date1, String date2){
24         int ret=0;
25         String tokens[] = date1.split("/");
26         String tokens2[] = date2.split("/");
27
28         ret = (Integer.parseInt(tokens2[0]) - Integer.parseInt(tokens[0])); //gia tis
hmeres
29         ret += 30*((Integer.parseInt(tokens2[1]) - Integer.parseInt(tokens[1]))); //gia
tous mines
30         ret += 365*((Integer.parseInt(tokens2[2]) - Integer.parseInt(tokens[2]))); //gia ta
xronia
31
32         return ret;
33     }
34
35     /*anoigei to arxeio kai diavazei ta dedomena
36     * ayta ta apothikeuei se antikeimena apo to model
37     * kai epistrefei to antikeimeno typou system
38     */
39     public SESystem readFile()
40     {
41         //dhmiourgw to antikeimeno gia na diavasw to arxeio
42         Scanner sc;
43         String prevdate=null;
44         int days;
45         try {
46             int numops, numstructs;
47             sc = new Scanner(file);
48             String line;
49             String []tokens; //gia thn apothikeush meta to split
50
51             newssystem = new SESystem();
52
53             //prwth grammi
54             line = sc.nextLine();
55             tokens = line.split(";");
56             newssystem.setName(tokens[1]);
57
58             //deuterh grammi me tis arxikes operations
59             line = sc.nextLine();
60             tokens = line.split(";");
61             numops = Integer.parseInt(tokens[1]);
62
63             //trith grammi me ta arxika structures
64             line = sc.nextLine();
65             tokens = line.split(";");

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66         numstructs = Integer.parseInt(tokens[1]);
67
68         line =sc.nextLine();
69         //tetarti grammi metis kefalides
70         line = sc.nextLine();
71
72         while (sc.hasNext()) {
73             Release newrel = new Release();
74             line = sc.nextLine();
75             tokens = line.split(";");
76             //h integer.parseint pairnei akeraio kai to kanei int
77             newrel.setId(Integer.parseInt(tokens[0]));
78             newrel.setDate(tokens[1]);
79             if(prevdate!=null){
80                 days = calcDays(prevdate,tokens[1]);
81             }
82             else{
83                 days = 0;
84             }
85             prevdate = tokens[1];
86             ChangesRecord operchanges = new ChangesRecord();
87             operchanges.setAdd(Integer.parseInt(tokens[2]));
88             operchanges.setDel(Integer.parseInt(tokens[3]));
89             operchanges.setUpd(Integer.parseInt(tokens[4]));
90             numops = numops + operchanges.getAdd() - operchanges.getDel();
91             newrel.setOpsChanges(operchanges);
92             ChangesRecord structchanges = new ChangesRecord();
93             structchanges.setAdd(Integer.parseInt(tokens[5]));
94             structchanges.setDel(Integer.parseInt(tokens[6]));
95             structchanges.setUpd(Integer.parseInt(tokens[7]));
96             numstructs = numstructs + structchanges.getAdd() - structchanges.getDel();
97             newrel.setStructChanges(structchanges);
98
99             MetricsRecord opermetrics = new MetricsRecord();
100            opermetrics.setPlithos(numops);
101            if(operchanges.getAdd()>0){
102                opermetrics.setComplex(((float)operchanges.getDel()+operchanges.getUpd())/operchang
es.getAdd());
103            }
104            else{
105                opermetrics.setComplex(0);
106            }
107            opermetrics.setRate(operchanges.getAdd() - operchanges.getDel());
108            //DEN einai swsto. prepei na diairesoume kai me to xroniko diasthma
109            if(days>0){
110                opermetrics.setJobs(((float)operchanges.getDel()+operchanges.getAdd()+operchanges.g
etAdd())/days);
111            }
112            else{
113                opermetrics.setJobs(0);
114            }
115            newrel.setOpsMetrics(opermetrics);
116
117            MetricsRecord structmetrics = new MetricsRecord();
118            structmetrics.setPlithos(numstructs);
119            if(structchanges.getAdd()>0){
120                structmetrics.setComplex(((float)structchanges.getDel()+structchanges.getUpd())/str
uctchanges.getAdd());

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121         }
122         else{
123             structmetrics.setComplex(0);
124         }
125         structmetrics.setRate(structchanges.getAdd() - structchanges.getDel());
126         if(days>0){
127             structmetrics.setJobs(((float)structchanges.getDel()+structchanges.getAdd()+structc
hanges.getAdd())/days);
128         }
129         else{
130             structmetrics.setJobs(0);
131         }
132         newrel.setStructMetrics(structmetrics);
133         newsystem.addRelease(newrel);
134     }
135     sc.close();
136 } catch (FileNotFoundException e) {
137     e.printStackTrace();
138 }
139
140 return newsystem;
141 }
142 }
143
```