

```

1  package Assign_4;
2
3
4  import java.util.*;
5  import BasicIO.*;
6  import static BasicIO.Formats.*;
7
8
9  public class PopCensus {
10
11
12     private ASCIIDataFile    addresses;
13     private BasicForm        household, individual;
14     private ASCIIOutputFile   censusData;
15     private ReportPrinter     report;
16
17
18     public PopCensus ( ) {
19
20         addresses = new ASCIIDataFile();
21         household = new BasicForm("OK","Skip");
22         individual = new BasicForm ("OK");
23         censusData = new ASCIIOutputFile("CensusData.txt");
24         report = new ReportPrinter();
25
26     };
27
28
29     private void takeCensus ( ) {
30
31         int numPeople, button, age, sex, language, numM, numF, numE, numFr, numO, totP;
32         String name, address;
33         numM = 0;
34         numF = 0;
35         numE = 0;
36         numFr = 0;
37         numO = 0;
38         totP = 0;
39
40         household();
41         individual();
42         setUpReport();
43
44         for ( ; ; ) {
45             address = addresses.readLine();
46             if (addresses.isEOF()) break;
47             household.writeString("address", address);
48             button = household.accept();
49             numPeople = household.readInt("people");
50             totP+=numPeople;
51             if (button == 0) {
52                 for (int i = 1 ; i <= numPeople ; i++) {
53                     individual.writeInt("person", i);
54                     individual.accept();
55                     name = individual.readString("name");
56                     age = individual.readInt("age");
57                     sex = individual.readInt ("sex");
58                     language = individual.readInt ("language");
59                     switch (individual.readInt("sex")){
60                         case 0:
61                             numM++;
62                             break;
63                         case 1:
64                             numF++;
65                             break;
66                     }
67                     switch (individual.readInt("language")){
68                         case 0:
69                             numE++;
70                             break;

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71         case 1:
72             numFr++;
73             break;
74         case 2:
75             numO++;
76             break;
77     }
78     censusData.writeLine(address + " " + numPeople + " " + name + " " + age +
" " + sex + " " + language);
79     censusData.newLine();
80     individual.clearAll();
81 }
82 report.writeString("address", address);
83 report.writeInt("people", numPeople);
84 report.writeInt("male", numM);
85 report.writeInt("female", numF);
86 report.writeInt("english", numE);
87 report.writeInt("french", numFr);
88 report.writeInt("other", numO);
89 numM = 0;
90 numF = 0;
91 numE = 0;
92 numFr = 0;
93 numO = 0;
94 }
95 household.clearAll();
96 }
97 individual.close();
98 household.close();
99 report.writeString("address","Total");
100 report.writeDouble("people",totP);
101 report.close();
102 };
103
104
105 private void household ( ) {
106
107     household.setTitle("Household");
108     household.addTextField("address", "Address ");
109     household.setEditable("address",false);
110     household.addTextField("people", "# People", 2);
111     household.setEditable("people",true);
112
113 };
114
115
116 private void individual( ) {
117
118     individual.setTitle("Individual");
119     individual.addTextField("person", "Person ", 2);
120     individual.setEditable("person",false);
121     individual.addTextField("name", "Name ");
122     individual.setEditable("name",true);
123     individual.addTextField("age", "Age ", 4);
124     individual.setEditable("age",true);
125     individual.addRadioButtons("sex", "Sex", false, "Male", "Female");
126     individual.addRadioButtons("language", "Language", false, "English", "French",
"Other");
127
128 };
129
130
131 private void setUpReport ( ) {
132
133     report.setTitle("Statistics Canada", "Census Report");
134     report.addField("address","Address",20);
135     report.addField("people","People");
136     report.addField("female","Female");
137     report.addField("male","Male");
138     report.addField("english","English");

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```
139     report.addField("french","French");
140     report.addField("other","Other");
141
142 };
143
144
145 public static void main ( String[] args ) { new PopCensus().takeCensus(); };
146
147
148 }
```