

```

1  import java.util.Scanner;
2
3  public class BirdFeeder {
4
5
6      public static void main(String[] args) {
7          // TODO Auto-generated method stub
8          int doorState = 1;
9          int sunlight = 50;
10         final int open = 1;
11         final int close = 0;
12         Scanner fileIn = new Scanner(File new File(), "BirdData.txt");
13
14         AudioSensor aSensor = new AudioSensor();
15         boolean isSongBird = aSensor.listen(2);
16         if (isSongBird) {
17             System.out.println("this is a songbird");
18             doorState=aSensor.activateServo(open,doorState);
19         }
20         else {
21             System.out.println("not a song bird");
22             doorState=aSensor.activateServo(close, doorState);
23         }
24
25         Sensor remoteUser = new Sensor();
26         // read from file
27         remoteUser.activateServo(close, doorState);
28         remoteUser.activateServo(open, doorState);
29
30     }
31
32 }
33
34 class Sensor {
35
36     public int activateServo(int action, int doorState) {
37         if (action == 1 && doorState == 0) {
38             System.out.println("Opening Feeder Door.");
39             doorState = 1;
40         } else if(action == 0 && doorState == 1) {
41             System.out.println("Closing Feeder Door.");
42             doorState = 0;
43         }
44         return doorState;
45     }
46 }
47
48
49 class AudioSensor extends Sensor{
50     public boolean listen(int audioTweet) {
51         if (audioTweet > 5 && audioTweet < 7)
52             return true;
53         return false;
54     }
55 }
56
57 class OpticalSensor extends Sensor{
58     final int sunlight = 70;
59     public boolean isSunlight(int lumens) {
60         if (lumens % sunlight >= 40)
61             return true;
62         if (lumens % sunlight <= 25)
63             return false;
64         return true;
65     }
66 }
67
68

```