```
1  package course.examples.intelligentrobot.helperClasses;
2
3  import android.util.Log;
4
5  import java.io.BufferedReader;
6  import java.io.FileOutputStream;
7  import java.io.IOException;
8
9  import course.examples.intelligentrobot.activities.SpeechRecognitionRemote;
10
11 /**
12  * Created by brianrhindress on 6/17/15.
13  */
14 public class decisionMaker {
15
16     private static final String TAG = decisionMaker.class.getSimpleName();
17     private int state;
18     private String color = null;
19     private String name = null;
20     private FileOutputStream outputStream;
21     private BufferedReader bufferedReader;
22     private String fileName = null;
23     private SpeechRecognitionRemote parent;
24     private boolean nav = false;
25
26     public decisionMaker(FileOutputStream stream, BufferedReader buffer, String file,
   SpeechRecognitionRemote context)
27     {
28         state = 0;
29         outputStream = stream;
30         bufferedReader = buffer;
31         fileName = file;
32         parent = context;
33     }
34
35     public decisionMaker()
36     {
37         this(null,null,null,null);
38     }
39
40     public String getStringTTS(String spokenWords)
41     {
42         String toTTS = "Error in choosing phrase";
43         String[] split = null;
44         if(spokenWords != null)
45         {
46             spokenWords = spokenWords.toLowerCase();
47             split = spokenWords.split(" ");
48         }
49
50         if(spokenWords != null && spokenWords.contains("restart"))
51         {
52             restart();
53         }
54         else if(spokenWords !=null && spokenWords.contains("bye"))
55         {
56             state = 5;
57         }
58
```

```
59        Log.d(TAG, "getStringTTS() spokenWords: " + spokenWords);
60
61        switch(state) {
62           case 0: //initial greeting
63              toTTS = "Hi, my name is Intro-bot.  What's your name?";
64              state = 1;
65              break;
66           case 1: //after asking name
67              for (int i = 0; i < split.length; i++) {
68                 if (!split[i].equals("i") &&
69                       !split[i].equals("am") &&
70                       !split[i].equals("i'm") &&
71                       !split[i].equals("i'm") &&
72                       !split[i].equals("name") &&
73                       !split[i].equals("is") &&
74                       !split[i].equals("my")){
75
76                    Log.d(TAG, "getStringTTS() split[i]: " + split[i]);
77                    Log.d(TAG, "getStringTTS() !split[i].equals(my): " + !split[i].
    equals("my"));
78                    Log.d(TAG, "getStringTTS() !split[i].equals(i'm): " + !split[i].
    equals("i'm"));
79
80                    name = split[i];
81                    break;
82                 }
83              }
84              if(searchName()==true)
85              {
86                 toTTS = name + "!  Great to see you again, you " + color + " lover.
    How's it hanging my man?";
87                 state = 4;
88              }
89              else
90              {
91                 toTTS = "Nice to meet you, " + name + ".  What is your favorite
    color?";
92                 state = 2;
93              }
94
95              break;
96           case 2:
97              for (int i = 0; i < split.length; i++) {
98                 if (!split[i].equals("favorite") &&
99                       !split[i].equals("color") &&
100                      !split[i].equals("is") &&
101                      !split[i].equals("my") &&
102                      !split[i].equals("i") &&
103                      !split[i].equals("like") &&
104                      !split[i].equals("the"))
105                {
106                   color = split[i];
107                   break;
108                }
109             }
110             createProfile();
111             toTTS = color + " is a terrible color!";
112             state = 3;
113             //break; go straight into base case
```

```
114             case 3:
115                toTTS = toTTS + " So, what can I help you with today?";
116                state = 4;
117                break;
118             case 4:
119                int i;
120                for (i = 0; i < split.length; i++) {
121
122                   if (split[i].equals("sad") ||
123                         split[i].equals("puppy")){
124                      //TODO puppy state
125                      toTTS = "*puppy state";
126                      state = 4;
127                      break;
128                   }
129                   else if (split[i].equals("wing") ||
130                         split[i].equals("alone") ||
131                         split[i].equals("lonely")){
132                      //TODO wing man state
133
134                      toTTS = "Need a wing man? ";
135                      String friend = findFriend();
136                      if(friend == null)
137                         toTTS = toTTS + "Haaaave ya met Ted?";
138                      else
139                         toTTS = toTTS + friend;
140                      state = 4;
141                      break;
142                   }
143                   else if (split[i].equals("lost") ||
144                         split[i].equals("find")){
145                      //TODO navigation state
146                      toTTS = "1Navigation mode activated!";
147                      nav = true;
148                      state = 6;
149                      break;
150                   }
151                   else if (split[i].equals("bye") ||
152                         split[i].equals("goodbye")){
153                      //TODO goodbye state
154                      toTTS = "Until next time, " + name + ". See ya later skater!";
155                      break;
156                   }
157                }
158
159                if(i==split.length && nav != true) {
160                   toTTS = "I'm sorry, I didn't catch that, " + name + ".  Can you say
       something intelligible?";
161                   state = 4;
162                }
163                break;
164             case 5:
165                toTTS = "Until next time, " + name + ". See ya later skater!";
166                break;
167             case 6: //navigation state
168                toTTS = "I hope you found what you were looking for.  Need anything
       else?";
169                state = 4;
170                nav = false;
```

```
171                 break;
172             }
173             return toTTS;
174         }
175 
176         private boolean searchName()
177         {
178             String readIn;
179             Log.d(TAG, "searchName() start");
180             try{
181                 while(bufferedReader.ready())
182                 {
183                     Log.d(TAG, "searchName() bufferedReader ready");
184                     readIn = bufferedReader.readLine();
185                     Log.d(TAG, "searchName() read from file: " + readIn);
186 
187                     if(readIn.contains(name))
188                     {
189                         Log.d(TAG, "searchName() found profile!");
190                         String[] profile  = readIn.split(" ");
191                         color = profile[1];
192                         bufferedReader.close();
193                         return true;
194                     }
195                 }
196             }catch(Exception e)
197             {
198                 e.printStackTrace();
199                 Log.d(TAG, "searchName() caught exception: " + e);
200 
201             }
202             return false;
203         }
204 
205         private void createProfile()
206         {
207             Log.d(TAG, "createProfile() start");
208             try {
209                 if(color == null)
210                 {
211                     color = "null";
212                 }
213                 outputStream.write((name + " " + color + "\n").getBytes());
214                 outputStream.close();
215                 Log.d(TAG, "createProfile() wrote & closed file: " + (name + " " + color)
        + " AKA:" + (name + " " + color).getBytes());
216             }
217             catch (IOException e) {
218                 Log.e("Exception", "File write failed: " + e.toString());
219                 Log.d(TAG, "createProfile() caught exception: " + e);
220 
221             }
222         }
223 
224         private String findFriend() {
225             BufferedReader buff = parent.getBufferedReader(fileName);
226             String readIn;
227             Log.d(TAG, "searchName() start");
228             try {
```

```
229             while (buff.ready()) {
230                 Log.d(TAG, "searchName() bufferedReader ready");
231                 readIn = buff.readLine();
232                 Log.d(TAG, "searchName() read from file: " + readIn);
233 
234                 if (!readIn.contains(name)) {
235                     Log.d(TAG, "searchName() found another profile!");
236                     String[] profile = readIn.split(" ");
237                     bufferedReader.close();
238                     return "Let me introduce you to "+ profile[0]+". He's tall, tan, and
    beautiful. He even likes " +
239                             "the color "+ profile[1];
240                 }
241             }
242 
243         } catch (Exception e) {
244             e.printStackTrace();
245             Log.d(TAG, "searchName() caught exception: " + e);
246         }
247 
248         return null;
249 
250     }
251 
252     private void restart()
253     {
254         bufferedReader = parent.getBufferedReader(fileName);
255         name = null;
256         color = null;
257         state = 0;
258     }
259 }
260 
261 
262 
```