

```

1  package caltool.model;
2
3  import caltool.view.*;
4  import caltool.model.file.*;
5  import caltool.model.edit.*;
6  import caltool.model.schedule.*;
7  import caltool.model.view.*;
8  import caltool.model.admin.*;
9  import caltool.model.options.*;
10 import caltool.model.help.*;
11 import caltool.model.caldb.*;
12 import mvp.Model;
13
14 /**
15  *
16  * Class CalendarTool is the top-level model class for the regular-user
17  * Calendar Tool program. CalendarTool has references to the functional model
18  * classes of the tool: File, Edit, Schedule, View, Admin, Options, and Help.
19  * There is also a reference to the CalendarDB class that houses the tool's
20  * major data bases.
21  *
22  * Functionalitywise, all of the model classes are autonomous units. They each
23  * do their own work as invoked by the user. All that this top-level class
24  * does is to construct the work-doing model classes and set up the initial
25  * state of the tool when it is invoked from the outside operating system.
26  *
27  * See also the companion view class <a href= "caltool_ui/CalendarToolUI.html">
28  * CalendarToolUI. </a>
29  *
30  * @author Gene Fisher (gfisher@calpoly.edu)
31  * @version 13apr15
32  *
33  */
34 public class CalendarTool extends Model {
35
36     /**
37     * Construct this with the given companion view. Call the submodel
38     * constructors. Initialize the start-up state based on default options
39     * and command-line arguments.
40     */
41     public CalendarTool(CalendarToolUI calToolUI) {
42
43         /*
44         * Call the parent constructor.
45         */
46         super(calToolUI);
47
48         /*
49         * Construct and store the submodel instances. Note that the
50         * CalendarDB is constructed before the File so the latter can observe
51         * the former for changes.
52         */
53         caldb = new CalendarDB(null);
54         file = new File(null, caldb);
55         edit = new Edit(null);
56         schedule = new Schedule(null, caldb);
57
58         calView = new View(null, caldb);
59         admin = new Admin(null);
60         options = new Options(null);
61
62         /*
63         * Set up the initial state of the tool.
64         */
65         initialize();
66     }
67
68     /**
69     * Implement the exit method to pass the buck to file.exit(). Per set up
70     * performed in the companion CalendarToolUI view, this method is called
71     * when the user closes the top-level menubar window, e.g., via the window
72     * manager close button.
73     */
74     public void exit() {
75         file.exit();
76     }
77
78     /** Return the File model. */
79     public File getFile() { return file; }
80
81     /** Return the Edit model. */
82     public Edit getEdit() { return edit; }
83
84     /** Return the Schedule model. */
85     public Schedule getSchedule() { return schedule; }
86
87     /** Return the View model. */
88     public View getCalView() { return calView; }
89
90     /** Return the Admin model. */
91     public Admin getAdmin() { return admin; }
92
93     /** Return the Options model. */
94     public Options getOptions() { return options; }
95
96     /** Return the Help model. */
97     public Help getHelp() { return help; }
98
99     /**-
100    * Protected methods
101    */
102
103    /**
104    * Set up the initial state of the tool, based on default option values and
105    * command-line arguments, if any. Details TBD.
106    */
107    void initialize() {}
108
109
110    /**-
111    * Data fields
112    */

```

caltool/model

CalendarTool.java

```
113
114     /** File-handling module */
115     protected File file;
116
117     /** Basic editing module */
118     protected Edit edit;
119
120     /** Scheduling module */
121     protected Schedule schedule;
122
123     /** Calendar viewing module */
124     protected View calView;
125
126     /** Calendar administration module */
127     protected Admin admin;
128
129     /** Tool options module */
130     protected Options options;
131
132     /** Tool help module */
133     protected Help help;
134
135     /** Calendar database */
136     protected CalendarDB caldb;
137
138 }
```