

Lists.java

```

1 package caltool.model.view;
2
3 import caltool.model.caldb.*;
4 import caltool.model.schedule.*;
5 import mvp.*;
6 import java.util.*;
7
8 /**
9 *
10 * Class Lists is the model class that encapsulates the View->Lists commands.
11 * These are commands to list appointments, meetings, tasks, events, and all
12 * items. Lists also has a reference to the CustomLists class, which has
13 * methods and data to support editing custom lists of items.
14 *
15 * There are couple design alternatives for this class. In Alternative 1, the
16 * way the class is currently designed, this Lists class supplies
17 * array-returning methods that trace to the operations in the abstract spec.
18 * These methods have been refined to return array values instead of whole
19 * model objects. This refinement supports the companion view classes that are
20 * implemented as JTables, the rows of which are easily populated with
21 * array-valued data.
22 *
23 * <p>
24 * Alternative 2, not currently implemented, would be patterned after the
25 * current MontlyAgenda/MonthlyAgendaDisplay design. In this version of the
26 * design,, the Lists class would have data fields that point to instances of
27 * AppointmentLists, etc, and each such list class would provide iterator
28 * methods, a la MontlyAgenda. In this case, the traceable
29 * viewAppointmentsList method returns a (persistent) AppointmentList object
30 * that serves as the appointment list factory, a la MonthlyAgenda.
31 * </p>
32 * Alternative 1 is more directly traceable to the spec, and more functional in
33 * style, since the return values of the methods are not persistent objects.
34 * Alternative 2 can be considered more object-oriented in style, with its
35 * persistent object instances and iterator methods. I see no real qualitative
36 * difference between the two designs, only a stylistic difference.
37 *
38 * @author Gene Fisher (gfisher@calpoly.edu)
39 * @version 13apr15
40 */
41 public class Lists extends mvp.Model {
42
43     public Lists(CalendarDB caldb) {
44     }
45
46
47 /**
48 * List all appointments between the current list-start and list-end option
49 * settings. The default start/end setting is the three-week period
50 * starting one week prior to today's date through two weeks after today's
51 * date. The list of values is returned in an array of <a href=
52 * AppointmentListItem.html> AppointmentListItems </a>.
53 *
54 * The current implementation is a stub that returns a sample list with
55 * values taken from <a href=
56 * ../../../../../../requirements/list-viewing.html#Figure Basic Appointments List>
57 * Figure 32 </a> of the requirements.
58 */
59 public Object[] viewAppointmentsList() {
60     return generateSampleList();
61 }
62
63 /**
64 * Generate a sample appointments list for initial view testing. The list
65 * is based on
66 * ../../../../../../requirements/list-viewing.html#Figure Basic Appointments List>
67 * Figure 32 </a> of the requirements, with additional data added to
68 * reflect that which is not visible in the default 20-line view. The data
69 * were generated with the assistance of Emacs editing macros.
70 */
71 protected Object[] generateSampleList() {
72
73     Vector<AppointmentListItem> list = new Vector();
74
75     list.add(
76         new AppointmentListItem(
77             "Racket Ball",
78             new caltool.model.schedule.Date("sep 17, 2015"),
79             new Time("8 AM"),
80             new Duration(1, 0),
81             true,
82             new Category("personal"),
83             "Rec centre",
84             Security.PublicTitle,
85             Priority.Optional)
86     );
87
88     list.add(
89         new AppointmentListItem(
90             "Office Hours",
91             new caltool.model.schedule.Date("sep 21, 2015"),
92             new Time("9 AM"),
93             new Duration(1, 0),
94             true,
95             new Category("classes"),
96             "14-210",
97             Security.Public,
98             Priority.Must)
99     );
100
101    list.add(
102        new AppointmentListItem(
103            "Data Structures Lecture",
104            new caltool.model.schedule.Date("sep 21, 2015"),
105            new Time("10 AM"),
106            new Duration(1, 0),
107            true,
108            new Category("classes"),
109            "14-256",
110            Security.Public,
111            Priority.Must)
112    );

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113
114     list.add(
115         new AppointmentListItem(
116             "Data Structures Lab",
117             new caltool.model.schedule.Date("sep 21, 2015"),
118             new Time("11 AM"),
119             new Duration(1, 0),
120             true,
121             new Category("classes"),
122             "14-232",
123             Security.Public,
124             Priority.Must)
125     );
126
127     list.add(
128         new AppointmentListItem(
129             "Software Engineering Graduate Seminar",
130             new caltool.model.schedule.Date("sep 21, 2015"),
131             new Time("3 PM"),
132             new Duration(2, 0),
133             true,
134             new Category("classes"),
135             "14-301",
136             Security.Public,
137             Priority.Must)
138     );
139
140     list.add(
141         new AppointmentListItem(
142             "Racket Ball",
143             new caltool.model.schedule.Date("sep 22, 2015"),
144             new Time("8 AM"),
145             new Duration(1, 0),
146             true,
147             new Category("personal"),
148             "Rec centre",
149             Security.PublicTitle,
150             Priority.Optional)
151     );
152
153     list.add(
154         new AppointmentListItem(
155             "Research",
156             new caltool.model.schedule.Date("sep 22, 2015"),
157             new Time("9 AM"),
158             new Duration(8, 0),
159             true,
160             new Category("research"),
161             "14-210",
162             Security.Public,
163             Priority.Must)
164     );
165
166     list.add(
167         new AppointmentListItem(
168             "Office Hours",
169             new caltool.model.schedule.Date("sep 23, 2015"),
170             new Time("9 AM"),
171             new Duration(1, 0),
172             true,
173             new Category("classes"),
174             "14-210",
175             Security.Public,
176             Priority.Must)
177     );
178
179     list.add(
180         new AppointmentListItem(
181             "Data Structures Lecture",
182             new caltool.model.schedule.Date("sep 23, 2015"),
183             new Time("10 AM"),
184             new Duration(1, 0),
185             true,
186             new Category("classes"),
187             "14-256",
188             Security.Public,
189             Priority.Must)
190     );
191
192     list.add(
193         new AppointmentListItem(
194             "Data Structures Lab",
195             new caltool.model.schedule.Date("sep 23, 2015"),
196             new Time("11 AM"),
197             new Duration(1, 0),
198             true,
199             new Category("classes"),
200             "14-232",
201             Security.Public,
202             Priority.Must)
203     );
204
205     list.add(
206         new AppointmentListItem(
207             "Lunch with Microsoft",
208             new caltool.model.schedule.Date("sep 23, 2015"),
209             new Time("12 PM"),
210             new Duration(1, 30),
211             false,
212             new Category("department"),
213             "Staff dining",
214             Security.Public,
215             Priority.Optional)
216     );
217
218     list.add(
219         new AppointmentListItem(
220             "Racket Ball",
221             new caltool.model.schedule.Date("sep 24, 2015"),
222             new Time("8 AM"),
223             new Duration(1, 0),
224             true,

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225     new Category("personal"),
226     "Rec centre",
227     Security.PublicTitle,
228     Priority.Optional)
229 );
230
231 list.add(
232     new AppointmentListItem(
233         "Office Hours",
234         new caltool.model.schedule.Date("sep 24, 2015"),
235         new Time("1:15 PM"),
236         new Duration(1, 45),
237         true,
238         new Category("classes"),
239         "14-210",
240         Security.Public,
241         Priority.Must)
242 );
243
244 list.add(
245     new AppointmentListItem(
246         "Software Engineering Graduate Seminar",
247         new caltool.model.schedule.Date("sep 24, 2015"),
248         new Time("3 PM"),
249         new Duration(2, 0),
250         true,
251         new Category("classes"),
252         "14-301",
253         Security.Public,
254         Priority.Must)
255 );
256
257 list.add(
258     new AppointmentListItem(
259         "Dentist",
260         new caltool.model.schedule.Date("sep 25, 2015"),
261         new Time("8 AM"),
262         new Duration(1, 30),
263         false,
264         new Category("personal"),
265         "1342 Sycamore Dr",
266         Security.PublicTitle,
267         Priority.Must)
268 );
269
270 list.add(
271     new AppointmentListItem(
272         "Office Hours",
273         new caltool.model.schedule.Date("sep 25, 2015"),
274         new Time("9 AM"),
275         new Duration(1, 0),
276         true,
277         new Category("classes"),
278         "14-210",
279         Security.Public,
280         Priority.Must)
281 );
282
283 list.add(
284     new AppointmentListItem(
285         "Data Structures Lecture",
286         new caltool.model.schedule.Date("sep 25, 2015"),
287         new Time("10 AM"),
288         new Duration(1, 0),
289         true,
290         new Category("classes"),
291         "14-256",
292         Security.Public,
293         Priority.Must)
294 );
295
296 list.add(
297     new AppointmentListItem(
298         "Data Structures Lab",
299         new caltool.model.schedule.Date("sep 25, 2015"),
300         new Time("11 AM"),
301         new Duration(1, 0),
302         true,
303         new Category("classes"),
304         "14-232",
305         Security.Public,
306         Priority.Must)
307 );
308
309 list.add(
310     new AppointmentListItem(
311         "Office Hours",
312         new caltool.model.schedule.Date("sep 28, 2015"),
313         new Time("9 AM"),
314         new Duration(1, 0),
315         true,
316         new Category("classes"),
317         "14-210",
318         Security.Public,
319         Priority.Must)
320 );
321
322 list.add(
323     new AppointmentListItem(
324         "Data Structures Lecture",
325         new caltool.model.schedule.Date("sep 28, 2015"),
326         new Time("10 AM"),
327         new Duration(1, 0),
328         true,
329         new Category("classes"),
330         "14-256",
331         Security.Public,
332         Priority.Must)
333 );
334
335 list.add(
336     new AppointmentListItem(

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337     "Data Structures Lab",
338     new caltool.model.schedule.Date("sep 28, 2015"),
339     new Time("11 AM"),
340     new Duration(1, 0),
341     true,
342     new Category("classes"),
343     "14-232",
344     Security.Public,
345     Priority.Must)
346 );
347
348 list.add(
349     new AppointmentListItem(
350         "Software Engineering Graduate Seminar",
351         new caltool.model.schedule.Date("sep 28, 2015"),
352         new Time("3 PM"),
353         new Duration(2, 0),
354         true,
355         new Category("classes"),
356         "14-301",
357         Security.Public,
358         Priority.Must)
359 );
360
361 list.add(
362     new AppointmentListItem(
363         "Racket Ball",
364         new caltool.model.schedule.Date("sep 29, 2015"),
365         new Time("8 AM"),
366         new Duration(1, 0),
367         true,
368         new Category("personal"),
369         "Rec centre",
370         Security.PublicTitle,
371         Priority.Optional)
372 );
373
374 list.add(
375     new AppointmentListItem(
376         "Research",
377         new caltool.model.schedule.Date("sep 29, 2015"),
378         new Time("9 AM"),
379         new Duration(8, 0),
380         true,
381         new Category("research"),
382         "14-210",
383         Security.Public,
384         Priority.Must)
385 );
386
387 list.add(
388     new AppointmentListItem(
389         "Office Hours",
390         new caltool.model.schedule.Date("sep 30, 2015"),
391         new Time("9 A"),
392         new Duration(1, 0),
393         true,
394         new Category("classes"),
395         "14-210",
396         Security.Public,
397         Priority.Must)
398 );
399
400 list.add(
401     new AppointmentListItem(
402         "Data Structures Lecture",
403         new caltool.model.schedule.Date("sep 30, 2015"),
404         new Time("10 AM"),
405         new Duration(1, 0),
406         true,
407         new Category("classes"),
408         "14-256",
409         Security.Public,
410         Priority.Must)
411 );
412
413 list.add(
414     new AppointmentListItem(
415         "Data Structures Lab",
416         new caltool.model.schedule.Date("sep 30, 2015"),
417         new Time("11 AM"),
418         new Duration(1, 0),
419         true,
420         new Category("classes"),
421         "14-232",
422         Security.Public,
423         Priority.Must)
424 );
425
426 list.add(
427     new AppointmentListItem(
428         "CAD Research Project Meeting",
429         new caltool.model.schedule.Date("sep 30, 2015"),
430         new Time("2:30 PM"),
431         new Duration(2, 0),
432         true,
433         new Category("research"),
434         "14-301",
435         Security.Public,
436         Priority.Must)
437 );
438
439 list.add(
440     new AppointmentListItem(
441         "Racket Ball",
442         new caltool.model.schedule.Date("oct 1, 2015"),
443         new Time("8 AM"),
444         new Duration(1, 0),
445         true,
446         new Category("personal"),
447         "Rec centre",
448         Security.PublicTitle,

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449     Priority.Optional)
450 );
451
452     list.add(
453         new AppointmentListItem(
454             "Office Hours",
455             new caltool.model.schedule.Date("oct 1, 2015"),
456             new Time("1:15 PM"),
457             new Duration(1, 45),
458             true,
459             new Category("classes"),
460             "14-210",
461             Security.Public,
462             Priority.Must)
463 );
464
465     list.add(
466         new AppointmentListItem(
467             "Software Engineering Graduate Seminar",
468             new caltool.model.schedule.Date("oct 1, 2015"),
469             new Time("3 PM"),
470             new Duration(2, 0),
471             true,
472             new Category("classes"),
473             "14-301",
474             Security.Public,
475             Priority.Must)
476 );
477
478     list.add(
479         new AppointmentListItem(
480             "Office Hours",
481             new caltool.model.schedule.Date("oct 2, 2015"),
482             new Time("9 AM"),
483             new Duration(1, 0),
484             true,
485             new Category("classes"),
486             "14-210",
487             Security.Public,
488             Priority.Must)
489 );
490
491     list.add(
492         new AppointmentListItem(
493             "Data Structures Lecture",
494             new caltool.model.schedule.Date("oct 2, 2015"),
495             new Time("10 AM"),
496             new Duration(1, 0),
497             true,
498             new Category("classes"),
499             "14-256",
500             Security.Public,
501             Priority.Must)
502 );
503
504     list.add(
505         new AppointmentListItem(
506             "Data Structures Lab",
507             new caltool.model.schedule.Date("oct 2, 2015"),
508             new Time("11 AM"),
509             new Duration(1, 0),
510             true,
511             new Category("classes"),
512             "14-232",
513             Security.Public,
514             Priority.Must)
515 );
516
517     list.add(
518         new AppointmentListItem(
519             "Office Hours",
520             new caltool.model.schedule.Date("oct 5, 2015"),
521             new Time("9 AM"),
522             new Duration(1, 0),
523             true,
524             new Category("classes"),
525             "14-210",
526             Security.Public,
527             Priority.Must)
528 );
529
530     list.add(
531         new AppointmentListItem(
532             "Data Structures Lecture",
533             new caltool.model.schedule.Date("oct 5, 2015"),
534             new Time("10 AM"),
535             new Duration(1, 0),
536             true,
537             new Category("classes"),
538             "14-256",
539             Security.Public,
540             Priority.Must)
541 );
542
543     list.add(
544         new AppointmentListItem(
545             "Data Structures Lab",
546             new caltool.model.schedule.Date("oct 5, 2015"),
547             new Time("11 AM"),
548             new Duration(1, 0),
549             true,
550             new Category("classes"),
551             "14-232",
552             Security.Public,
553             Priority.Must)
554 );
555
556     list.add(
557         new AppointmentListItem(
558             "Software Engineering Graduate Seminar",
559             new caltool.model.schedule.Date("oct 5, 2015"),
560             new Time("3 PM"),

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```
561         new Duration(2, 0),
562         true,
563         new Category("classes"),
564         "14-301",
565         Security.Public,
566         Priority.Must)
567     );
568
569     list.add(
570         new AppointmentListItem(
571             "Racket Ball",
572             new caltool.model.schedule.Date("oct 6, 2015"),
573             new Time("8 AM"),
574             new Duration(1, 0),
575             true,
576             new Category("personal"),
577             "Rec centre",
578             Security.PublicTitle,
579             Priority.Optional)
580     );
581
582     list.add(
583         new AppointmentListItem(
584             "Research",
585             new caltool.model.schedule.Date("oct 6, 2015"),
586             new Time("9 AM"),
587             new Duration(8, 0),
588             true,
589             new Category("research"),
590             "14-210",
591             Security.Public,
592             Priority.Must)
593     );
594
595     return list.toArray();
596
597 }
598
599 }
```