

Case Study: High Adventure Travel Agency—Part 3

Chapter 6's case study was a program to assist the High Adventure Travel Agency in calculating the costs of their four vacation packages. In Chapter 11, a modification to that program was started, which will be completed here.

Recall that in Chapter 11, data structures were designed to hold all the cost information for a vacation package. You are now ready to add file I/O capabilities. When this section is complete, the program will be able to save the cost information of booked vacation packages to a reservation file. It will also display a list of all the data stored in the file. The menu that is displayed lists the four vacation packages, plus a fifth option which causes the data stored in the reservation file to be displayed. A sixth option exits the program.

New Modules

Three new modules, or functions, will be added to the program: openFile, saveInfo, and showRes. Table 1 describes the purpose of each module.

Table 1

Module Name	Description
openFile	Opens the requested file.
saveInfo	Saves the cost data of a vacation package reservation to the file currently open.
showRes	Displays all of the package reservation data in the file currently open.

The openFile Module

The OpenFile module is called prior to the menu being displayed. It first asks the user to enter the name of a file. That file is then opened for input and output, in binary mode. Here is the pseudocode:

```
openFile Module
        Ask user for file name.
        Open file in binary mode for input and output.
        If file failed to open
            Create the file.
        End If.
   End Module.
The C++ code is shown here:
    void openFile(fstream &file)
   {
        const int SIZE = 256;
        char fileName[SIZE];
        cout << "File name: ";</pre>
        cin.getline(fileName, SIZE);
        file.open(fileName, ios::in | ios::out | ios::binary);
        if (!file)
            cout << "Creating " << fileName << "...\n";</pre>
            // Create the file.
            file.open(fileName, ios::out);
             // Close the file.
            file.close();
             // Reopen the file for input and output.
            file.open(fileName, ios::in | ios::out | ios::binary);
        }
   }
```

The saveInfo Module

The saveInfo module is called after the costs for a specific vacation package have been calculated. The user is asked if he or she wants to save the data. If so, the data structure holding the data is written to the reservation file currently open. Here is the pseudocode:

```
saveInfo Module
        Ask user "Do you want to save this data?".
        If "yes"
            Write record to the file.
            If write operation failed
                 Display error message.
            End If.
        End If.
   End Module.
The C++ code is shown here:
   void saveInfo(Reservation &group, fstream &file)
    {
        char yorN;
        cout << "Do you want to save this data? (Y/N) ";
        cin >> yorN;
        yorN = toupper(yorN);
```

```
3
```

```
// Validate input
while (yorN != 'Y' && yorN != 'N')
{
    cout << "Please enter Y or N\n";
    cin >> yorN;
    yorN = toupper(yorN);
}

// Save the data.
if (yorN == 'Y')
{
    cout << "Saving reservation data.\n";
    file.write(reinterpret_cast<char *>(&group), sizeof(group));
    if (!file)
        cout << "Could not write to file!\n";
}
</pre>
```

The showRes Module

When the user selects option 5 from the menu, the showRes module is called. This function moves the file's read position to the beginning of the file. It then begins a loop that displays the record's data, and reads the next record from the file. The loop repeats until the end of the file is encountered. Here is the pseudocode:

```
showRes Module
          Seek beginning of file.
          Read a record from the file.
          While not at the end of the file
               Display the record.
               Ask user to press a key to continue.
               Read a record from the file.
          End While.
   End Module.
The C++ code is shown here:
   void showRes(fstream &file)
        Reservation temp;
        char skip[2];
        file.seekg(OL, ios::beg); // Go to beginning of file.
        file.read(reinterpret cast<char *>(&temp), sizeof(temp));
        while (!file.eof())
            displayInfo(temp);
            cout << "Type a character and press Enter "</pre>
                  << "to continue:";
            cin >> skip;
            file.read(reinterpret cast<char *>(&temp), sizeof(temp));
        if (file.fail())
           file.clear();
                                    // Clear any error state
   }
```

The function defines a local variable, temp, which is a Reservation structure. It's used to hold each record as it is read from the file. After each record's data is displayed, the message "Type a character and press Enter" is displayed. When the user performs this action, the function repeats the loop, reading the next record.

The last if statement tests the condition of the file's fail bit. If file.fail returns true, the fail bit is cleared so processing may resume. (The fail bit may be set after the last record has been read, as a result of the read member trying to read past the end of the file.)

Program 12-23 shows the entire program.

Program 12-23

```
// This program will assist the High Adventure Travel Agency
    // in booking reservations for any of their 4 major
    // vacation packages.
    #include <iostream>
   #include <fstream>
    #include <iomanip>
    #include <cctype>
8
   using namespace std;
9
    // Data Structures
11
    struct Package1
                                 // Climbing Package
12
13
        int
                                 // Number in party
                                 // Those needing instruction
14
        int.
                  beginners;
15
        int
                  advanced;
                                 // Those not needing instruction
16
        int.
                  needEquip;
                                 // Those renting camping equipment
17
        double
                  baseCharges;
                                 // Base charges
18
                                 // Total charges
        double
                  charges;
        double
                                 // Cost of instruction
19
                  instruction;
20
        double
                  equipment;
                                 // Cost of equipment rental
21
        double
                  discount;
                                 // Discount
        double
                  deposit;
                                 // Required deposit
22
23
    };
24
25
    struct Package2
                                 // Scuba Package
26
    {
                                 // Number in party
27
        int
                  num;
        int
                                 // Those needing instruction
2.8
                  beginners;
29
        int
                  advanced;
                                 // Those not needing instruction
30
        double
                  baseCharges;
                                 // Base charges
31
        double
                  charges;
                                 // Total charges
32
        double
                  instruction;
                                 // Cost of instruction
33
        double
                  discount;
                                 // Discount
        double
                  deposit;
                                 // Required deposit
34
35
   };
36
```

Program 12-23 (continued)

```
// Sky Diving Package
    struct Package3
39
        int
                 num;
                                // Number in party
40
        int
                 lodge1;
                                // Number at 1st lodging choice
41
        int
                 lodge2;
                                // Number at 2nd lodging choice
        double
                 baseCharges;
                                // Base charges
42
43
        double
                 charges;
                                // Total charges
                                // Discount
44
        double
                 discount;
45
        double
                 lodging;
                                // Cost of lodging
46
        double
                 deposit;
                                // Required deposit
47
   };
48
                                // Spelunking Package
49
   struct Package4
50
51
        int
                                // Number in party
52
        int
                 needEquip;
                                // Those renting camping equipment
53
        double
                 baseCharges;
                                // Base charges
54
        double
                 charges;
                                // Total charges
55
        double
                 equipment;
                                // Cost of equipment rental
56
        double
                 discount;
                                // Discount
57
        double
                                // Required deposit
                 deposit;
58
   };
59
   union Pack
60
61
        struct Packagel climb;
62
63
        struct Package2 scuba;
        struct Package3 sky;
64
        struct Package4 spel;
65
66
   };
67
   struct Reservation
69
70
        int packNum;
71
        union Pack packs;
72
   };
73
74 // Constants for the charges.
75 const double CLIMB RATE = 350.0;
                                            // Base rate - Devil's Courthouse
76 const double SCUBA RATE = 1000.0;
                                            // Base rate - Bahamas
                                            // Base rate - Sky diving
   const double SKY DIVE RATE = 400.0;
   const double CAVE RATE = 700.0;
                                            // Base rate - Spelunking
   const double CLIMB INSTRUCT = 100.0;
                                           // Climbing instruction
79
80 const double SCUBA_INSTRUCT = 100.0; // Scuba instruction
81 const double DAILY CAMP RENTAL = 40.0; // Daily camping equip. rental
   const double DAY LODGE 1 = 65.0;
                                            // Lodging option (sky diving)
   const double DAY_LODGE_2 = 120.0;
                                            // Lodging option (sky diving)
84
                                                                      (program continues)
```

```
Program 12-23 (continued)
```

```
// Function prototypes
    void openFile(fstream &);
    void saveInfo(Reservation &, fstream &);
 88 void climbing(Reservation &);
 89 void scuba(Reservation &);
 90 void skyDive(Reservation &);
 91 void spelunk(Reservation &);
 92 int menu();
    void displayInfo(Reservation &);
 94 void displayPack1(Reservation &);
 95 void displayPack2(Reservation &);
 96 void displayPack3(Reservation &);
 97 void displayPack4(Reservation &);
 98 void showRes(fstream &);
 99
100 int main()
101
102
         int selection;
103
         Reservation group;
104
         fstream file;
105
106
         cout << fixed << showpoint << setprecision(2);</pre>
107
         openFile(file);
108
         do
109
         {
110
             selection = menu();
111
             switch(selection)
112
113
                 case 1 : climbing(group);
114
                          break;
115
                 case 2 : scuba(group);
116
                          break;
117
                 case 3 : skyDive(group);
118
                          break;
119
                 case 4 : spelunk(group);
120
                           break;
121
                 case 5 : showRes(file);
122
                          break;
123
                 case 6 : cout << "Exiting program.\n\n";</pre>
124
             }
125
             if (selection < 5)
126
127
                 displayInfo(group);
128
                 saveInfo(group, file);
129
130
         } while (selection != 6);
131
         file.close();
132
         return 0;
133
    }
134
```

Program 12-23 (continued)

```
//**************
136 // Definition of function openFile.
    // Accepts an fstream object as an argument. The
138 // file is opened for both input and output, in
139 // binary mode.
    //*************
140
141
142 void openFile(fstream &file)
143
144
        const int SIZE = 256;
145
        char fileName[SIZE];
146
147
        cout << "File name: ";</pre>
148
        cin.getline(fileName, SIZE);
149
150
        file.open(fileName, ios::in | ios::out | ios::binary);
151
        if (!file)
152
153
           cout << "Creating " << fileName << "...\n";</pre>
154
           // Create the file.
155
           file.open(fileName, ios::out);
156
           // Close the file.
157
           file.close();
           // Reopen the file for input and output.
158
159
           file.open(fileName, ios::in | ios::out | ios::binary);
160
161
    }
162
    //********************
   // Definition of function saveInfo.
165 // Accepts a Reservation structure and an fstream object.
166 // The user is asked if the data in the structure
167 // is to be saved. If so, it is saved at the end of the file.*
    //*********************************
168
169
170 void saveInfo(Reservation &group, fstream &file)
171 {
172
        char yorN;
173
174
        cout << "Do you want to save this data? (Y/N) ";
175
        cin >> yorN;
176
        yorN = toupper(yorN);
177
```

```
Program 12-23
                       (continued)
178
         // Validate input
179
         while (yorN != 'Y' && yorN != 'N')
180
181
             cout << "Please enter Y or N\n";</pre>
182
             cin >> yorN;
183
             yorN = toupper(yorN);
184
185
         // Save the data.
186
187
         if (yorN == 'Y')
188
189
             cout << "Saving reservation data.\n";</pre>
190
             file.write(reinterpret cast<char *>(&group), sizeof(group));
             if (!file)
191
                 cout << "Could not write to file!\n";</pre>
192
193
         }
194
     }
195
196 //*************************
197 // Definition of function menu.
198 // Displays the main menu and asks the user to select *
     // an option. Returns an integer in the range 1 - 6. *
200
201
202
    int menu( )
203
204
         int choice;
205
206
         cout << "High Adventure Travel Agency\n";</pre>
207
         cout << "----\n";
         cout << "1) Devil's Courthouse Adventure Weekend\n";</pre>
208
209
         cout << "2) Scuba Bahama\n";</pre>
         cout << "3) Sky Dive Colorado\n";</pre>
210
211
         cout << "4) Barron Cliff Spelunk\n";</pre>
212
         cout << "5) Show Booked Reservations\n";</pre>
213
         cout << "6) Exit Program\n\n";</pre>
214
         cout << "Enter 1, 2, 3, 4, 5, or 6: ";
215
         cin >> choice;
216
217
         while (choice < 1 | choice > 6)
218
219
             cout << "Invalid Selection\n";</pre>
220
             cin >> choice;
221
222
         return choice;
223 }
224
```

Program 12-23 (continued)

```
//*************
    // Definition of climbing function.
    // Uses a Reservation reference parameter to hold the
   // vacation package information.
229 // This function calculates the charges for the
    // Devil's Courthouse Adventure Weekend package.
231
232
233
    void climbing(Reservation &group)
234
    {
235
         group.packNum = 1;
236
         cout << "\nDevil's Courthouse Adventure Weekend\n";</pre>
237
         cout << "----\n";
238
         cout << "How many will be going who need an instructor? ";</pre>
239
         cin >> group.packs.climb.beginners;
240
         cout << "How many advanced climbers will be going? ";</pre>
241
         cin >> group.packs.climb.advanced;
242
         group.packs.climb.num = group.packs.climb.beginners +
243
                   group.packs.climb.advanced;
244
         cout << "How many will rent camping equipment? ";</pre>
245
         cin >> group.packs.climb.needEquip;
246
         // Calculate base charges.
247
         group.packs.climb.baseCharges = group.packs.climb.num *
248
                     CLIMB RATE;
249
         group.packs.climb.charges = group.packs.climb.baseCharges;
250
         // Calculate 10% discount for 5 or more.
251
         if (group.packs.climb.num > 4)
252
253
             group.packs.climb.discount = group.packs.climb.charges
254
                       * .1;
255
             group.packs.climb.charges -= group.packs.climb.discount;
256
         }
257
         else
258
             group.packs.climb.discount = 0;
259
         // Add cost of instruction.
260
         group.packs.climb.instruction = group.packs.climb.beginners
261
                     * CLIMB INSTRUCT;
262
         group.packs.climb.charges += group.packs.climb.instruction;
263
         // Add cost of camping equipment rental
264
         group.packs.climb.equipment = group.packs.climb.needEquip *
                  DAILY CAMP RENTAL * 4;
265
         group.packs.climb.charges += group.packs.climb.equipment;
266
267
         // Calculate required deposit.
268
         group.packs.climb.deposit = group.packs.climb.charges / 2.0;
269 }
270
```

Program 12-23 (continued)

```
//**************
    // Definition of scuba function.
    // Uses a Reservation reference parameter to hold the
    // vacation package information.
275 // This function calculates the charges for the
276 // Scuba Bahama package.
277
2.78
279
    void scuba(Reservation &group)
280
    {
2.81
        group.packNum = 2;
282
        cout << "\nScuba Bahama\n";</pre>
        cout << "----\n";
283
284
        cout << "How many will be going who need an instructor? ";</pre>
285
        cin >> group.packs.scuba.beginners;
        cout << "How many advanced scuba divers will be going? ";</pre>
286
287
        cin >> group.packs.scuba.advanced;
288
        group.packs.scuba.num = group.packs.scuba.beginners +
289
                 group.packs.scuba.advanced;
290
        // Calculate base charges.
         group.packs.scuba.baseCharges = group.packs.scuba.num *
291
292
                  SCUBA RATE;
293
        group.packs.scuba.charges = group.packs.scuba.baseCharges;
294
        // Calculate 10% discount for 5 or more.
295
        if (group.packs.scuba.num > 4)
296
297
            group.packs.scuba.discount = group.packs.scuba.charges
298
                  * .1;
299
            group.packs.scuba.charges -= group.packs.scuba.discount;
        }
301
        else
302
            group.packs.scuba.discount = 0;
303
        // Add cost of instruction.
304
         group.packs.scuba.instruction = group.packs.scuba.beginners
305
               * SCUBA INSTRUCT;
306
        group.packs.scuba.charges += group.packs.scuba.instruction;
307
         // Calculate required deposit.
308
         group.packs.scuba.deposit = group.packs.scuba.charges / 2.0;
309
310
    //**************
311
    // Definition of skyDive function.
313 // Uses a Reservation reference parameter to hold the
314 // vacation package information.
315 // This function calculates the charges for the
316 // Sky Dive Colorado package.
317
318
```

Program 12-23 (continued)

```
void skyDive(Reservation &group)
320
321
         group.packNum = 3;
322
         cout << "\nSky Dive Colorado\n";</pre>
323
         cout << "----\n";
324
        cout << "How many will be going? ";</pre>
325
        cin >> group.packs.sky.num;
326
         // Calculate base charges.
327
         group.packs.sky.baseCharges = group.packs.sky.num *
328
                    SKY DIVE RATE;
329
         group.packs.sky.charges = group.packs.sky.baseCharges;
         // Calculate 10% discount for 5 or more.
331
         if (group.packs.sky.num > 4)
332
333
            group.packs.sky.discount = group.packs.sky.charges * .1;
334
            group.packs.sky.charges -= group.packs.sky.discount;
335
         }
336
         else
337
            group.packs.sky.discount = 0;
338
         // Calculate lodging costs.
339
         cout << "How may will stay at Wilderness Lodge? ";</pre>
340
         cin >> group.packs.sky.lodge1;
341
         cout << "How many will stay at Luxury Inn? ";</pre>
342
        cin >> group.packs.sky.lodge2;
343
         group.packs.sky.lodging = (group.packs.sky.lodge1 *
344
            DAY LODGE 1) + (group.packs.sky.lodge2 * DAY LODGE 2);
345
         group.packs.sky.charges += group.packs.sky.lodging;
346
         // Calculate required deposit.
347
         group.packs.sky.deposit = group.packs.sky.charges / 2.0;
348
    }
349
350 //*************************
351 // Definition of spelunk function.
352 // Uses a Reservation reference parameter to hold the
    // vacation package information.
    // This function calculates the charges for the
355 // Barron Cliff Spelunk package.
356
357
358 void spelunk(Reservation &group)
359
360
         group.packNum = 4;
361
         cout << "\nBarron Cliff spelunk Weekend\n";</pre>
        cout << "----\n";
362
363
        cout << "How many will be going? ";</pre>
        cin >> group.packs.spel.num;
364
        cout << "How many will rent camping equipment? ";</pre>
365
366
        cin >> group.packs.spel.needEquip;
```

Program 12-23 (continued)

```
367
        // Calculate base charges.
368
        group.packs.spel.baseCharges = group.packs.spel.num *
369
                 CAVE RATE;
370
        group.packs.spel.charges = group.packs.spel.baseCharges;
371
        // Calculate 10% discount for 5 or more.
372
        if (group.packs.spel.num > 4)
373
374
            group.packs.spel.discount = group.packs.spel.charges * .1;
375
            group.packs.spel.charges -= group.packs.spel.discount;
376
        }
377
        else
378
            group.packs.spel.discount = 0;
379
        // Add cost of camping equipment rental
380
        group.packs.spel.equipment = group.packs.spel.needEquip *
                 DAILY CAMP RENTAL * 4;
381
        group.packs.spel.charges += group.packs.spel.equipment;
382
383
        // Calculate required deposit.
384
        group.packs.spel.deposit = group.packs.spel.charges / 2.0;
385 }
386
387 //*****************************
    // Definition of function displayInfo.
389 // Uses a Reservation reference parameter to hold the
390 // vacation package information. This function looks in the
391 // group.packNum member to determine which function to call
392 // to display the vacation package information.
393 //****************************
394
395
    void displayInfo(Reservation &group)
396
397
        switch (group.packNum)
398
            case 1: displayPack1(group);
399
400
               break;
401
            case 2: displayPack2(group);
402
               break;
403
            case 3: displayPack3(group);
404
               break;
405
            case 4: displayPack4(group);
406
               break;
            default: cout << "ERROR: Invalid package number.\n";</pre>
407
408
        }
409
    }
410
412 // Definition of function displayPack1.
413 // Uses a Reservation reference parameter to hold the
414 // vacation package information. This function displays the
415 // information stored for vacation package 1.
416
417
```

Program 12-23

(continued)

```
void displayPack1(Reservation &group)
419
         cout << "Package: Devil's Courthouse Adventure Weekend\n";</pre>
420
421
         cout << "Number in party: "</pre>
             << group.packs.climb.num << endl;</pre>
422
         cout << "Base charges: $"</pre>
423
424
             << group.packs.climb.baseCharges << endl;</pre>
425
         cout << "Instruction cost: $"</pre>
426
             << group.packs.climb.instruction << endl;
427
         cout << "Equipment rental: $"</pre>
428
             << group.packs.climb.equipment << endl;</pre>
429
         cout << "Discount: $"</pre>
430
             << group.packs.climb.discount << endl;
431
         cout << "Total charges: $"</pre>
432
             << group.packs.climb.charges << endl;</pre>
         cout << "Required deposit: $"</pre>
433
434
             << group.packs.climb.deposit << endl << endl;
435
436
437
    // Definition of function displayPack2.
     // Uses a Reservation reference parameter to hold the
    // vacation package information. This function displays the
440
    // information stored for vacation package 2.
441
442
443
444
    void displayPack2(Reservation &group)
445
         cout << "Package: Scuba Bahama\n";</pre>
446
447
         cout << "Number in party: "</pre>
448
             << group.packs.scuba.num << endl;</pre>
449
         cout << "Base charges: $"</pre>
450
             << group.packs.scuba.baseCharges << endl;</pre>
451
         cout << "Instruction cost: $"</pre>
452
             << group.packs.scuba.instruction << endl;
453
         cout << "Discount: $"</pre>
454
             << group.packs.scuba.discount << endl;
455
         cout << "Total charges: $"</pre>
456
             << group.packs.scuba.charges << endl;</pre>
457
         cout << "Required deposit: $"</pre>
458
             << group.packs.scuba.deposit << endl << endl;</pre>
459
460
    //*******************
461
    // Definition of function displayPack3.
463 // Uses a Reservation reference parameter to hold the
    // vacation package information. This function displays the
     // information stored for vacation package 3.
466
467
```

Program 12-23 (continued)

```
void displayPack3(Reservation &group)
469
470
         cout << "Package: Sky Dive Colorado\n";</pre>
471
         cout << "Number in party: "</pre>
472
            << group.packs.sky.num << endl;
473
         cout << "Base charges: $"</pre>
474
            << group.packs.sky.baseCharges << endl;</pre>
475
         cout << "Lodging: $"</pre>
476
             << group.packs.sky.lodging << endl;</pre>
477
        cout << "Discount: $"</pre>
478
             << group.packs.sky.discount << endl;
479
         cout << "Total charges: $"</pre>
            << group.packs.sky.charges << endl;
480
481
         cout << "Required deposit: $"</pre>
             << group.packs.sky.deposit << endl << endl;
482
483
484
    //********************
485
486 // Definition of function displayPack4.
487 // Uses a Reservation reference parameter to hold the
    // vacation package information. This function displays the
     // information stored for vacation package 4.
    //*************
490
491
492
    void displayPack4(Reservation &group)
493
494
         cout << "Package: Barron Cliff Spelunk\n";</pre>
         cout << "Number in party: "</pre>
495
496
            << group.packs.spel.num << endl;
497
        cout << "Base charges: $"</pre>
498
            << group.packs.spel.baseCharges << endl;</pre>
499
         cout << "Equipment rental: $"</pre>
500
            << group.packs.spel.equipment << endl;
501
        cout << "Discount: $"</pre>
502
             << group.packs.spel.discount << endl;
503
        cout << "Total charges: $"</pre>
504
             << group.packs.spel.charges << endl;
505
         cout << "Required deposit: $"</pre>
506
             << group.packs.spel.deposit << endl << endl;
507
508
    //*********************
    // Definition of function showRes.
511 // Accepts an fstream object as an argument. Seeks the
512 // beginning of the file and then reads and displays
513 // each record.
514 //******
515
```

Saving reservation data.

(program output continues)

```
Program 12-23
                    (continued)
    void showRes(fstream &file)
517
518
        Reservation temp;
519
        char skip[2];
520
521
        file.seekg(OL, ios::beg); // Go to beginning of file.
522
        file.read(reinterpret_cast<char *>(&temp), sizeof(temp));
523
        while (!file.eof())
524
525
            displayInfo(temp);
526
            cout << "Type a character and press Enter "</pre>
527
                << "to continue:";
528
            cin >> skip;
529
            file.read(reinterpret cast<char *>(&temp), sizeof(temp));
530
531
        if (file.fail())
            file.clear(); // Clear any error state
532
533 }
Program Output with Example Input Shown in Bold
File name: resfile [Enter]
High Adventure Travel Agency
1) Devil's Courthouse Adventure Weekend
2) Scuba Bahama
3) Sky Dive Colorado
4) Barron Cliff Spelunk
5) Show Booked Reservations
6) Exit Program
Enter 1, 2, 3, 4, 5, or 6: 1 [Enter]
Devil's Courthouse Adventure Weekend
_____
How many will be going who need an instructor? 3 [Enter]
How many advanced climbers will be going? 2 [Enter]
How many will rent camping equipment? 3 [Enter]
Package: Devil's Courthouse Adventure Weekend
Number in party: 5
Base charges: $1750.00
Instruction cost: $300.00
Equipment rental: $480.00
Discount: $175.00
Total charges: $2355.00
Required deposit: $1177.50
Do you want to save this data? (Y/N) y [Enter]
```

Program 12-23 (continued) High Adventure Travel Agency 1) Devil's Courthouse Adventure Weekend 2) Scuba Bahama 3) Sky Dive Colorado 4) Barron Cliff Spelunk 5) Show Booked Reservations 6) Exit Program Enter 1, 2, 3, 4, 5, or 6: 3 [Enter] Sky Dive Colorado How many will be going? 8 [Enter] How many will stay at Wilderness Lodge? 4 [Enter] How many will stay at Luxury Inn? 4 [Enter] Package: Sky Dive Colorado Number in party: 8 Base charges: \$3200.00 Lodging: \$740.00 Discount: \$320.00 Total charges: \$3620.00 Required deposit: \$1810.00 Do you want to save this data? (Y/N) y [Enter] Saving reservation data. High Adventure Travel Agency -----1) Devil's Courthouse Adventure Weekend 2) Scuba Bahama 3) Sky Dive Colorado 4) Barron Cliff Spelunk 5) Show Booked Reservations 6) Exit Program Enter 1, 2, 3, 4, 5, or 6: 5 [Enter] Package: Devil's Courthouse Adventure Weekend Number in party: 5 Base charges: \$1750.00 Instruction cost: \$300.00 Equipment rental: \$480.00 Discount: \$175.00 Total charges: \$2355.00 Required deposit: \$1177.50 (program output continues)

Program 12-23

(continued)

Type a character and press Enter to continue: g [Enter]

Package: Sky Dive Colorado

Number in party: 8
Base charges: \$3200.00
Lodging: \$740.00

Discount: \$320.00 Total charges: \$3620.00 Required deposit: \$1810.00

Type a character and press Enter to continue: g [Enter]

High Adventure Travel Agency

- 1) Devil's Courthouse Adventure Weekend
- 2) Scuba Bahama
- 3) Sky Dive Colorado
- 4) Barron Cliff Spelunk
- 5) Show Booked Reservations
- 6) Exit Program

Enter 1, 2, 3, 4, 5, or 6: 6 [Enter]

Exiting program.