

In Case Study 5, a modification to the High Adventure Travel Agency program was started, which will be completed here.

Recall that in Case Study 5, 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 that causes the data stored in the reservation file to be displayed. A sixth option exits the program.

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New Functions
will destroy the integrity of the work and is not permitted.

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

Table 1 New Functions

Function 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 Function

The OpenFile function 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 Function
       Ask user for file name.
        Open file in binary mode for input and output.
        If file failed to open
             Create the file.
       Fnd If.
   End Function.
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.
       This write icrosel octed by United States copyright laws
       and it /p Reopen the file for cinput land outputn teaching
       their filesepen(fileName;ndosudimt|letosinout)|stosinblinary);
       or sale of any part of this work (including on the World Wide Web)
       will destroy the integrity of the work and is not permitted.
```

The saveInfo Function

The saveInfo function 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 Function
       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 Function.
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;
       vorN = toupper(vorN);
```

```
// 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 Function

When the user selects option 5 from the menu, the showRes function 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 pseudocodes copyright laws

```
and is provided solely for the use of instructors in teaching showes Function
          r courses and assessing student learning. Dissemination
      or sake of any part of this therk fine luding on the World Wide Web)
      will while ynote atternetyend to the kalle is not permitted.
               Display the record.
               Ask user to press a key to continue.
               Read a record from the file.
           End While.
    End Function.
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:";
            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 CS6-1 shows the entire program.

Program CS6-1

```
// This program will assist the High Adventure Travel Agency
 2 // in booking reservations for any of their 4 major
 3 // vacation packages.
 4 #include <iostream>
 5 #include <fstream>
 6 #include <iomanip>
    #include <cctype>
   using namespace std;
9
10 // Data Structures
   struct Package k is protected by Unite Chimbing Package laws
11
           and is provided solely for the use of instructors in teaching
12 {
        int their countins and assessing plunumber amiparty issemination
13
14
        intor sale obeginners of this work (Thoselineeding and instruction Web)
        int will destradvanced egrity of the withose nots needing instruction
15
16
        int
                   needEquip;
                                      // Those renting camping equipment
17
        double
                   baseCharges;
                                     // Base charges
18
        double
                   charges;
                                      // Total charges
19
        double
                                     // Cost of instruction
                   instruction:
20
                                      // Cost of equipment rental
        double
                   equipment;
21
        double
                   discount;
                                      // Discount
22
        double
                                      // Required deposit
                   deposit;
23 };
24
25
   struct Package2
                                      // Scuba Package
26
27
        int
                   num;
                                      // Number in party
28
        int
                   beginners;
                                      // Those needing instruction
29
                                      // Those not needing instruction
        int
                   advanced;
30
        double
                   baseCharges;
                                      // Base charges
31
        double
                   charges;
                                      // Total charges
32
        double
                   instruction:
                                      // Cost of instruction
33
        double
                   discount:
                                      // Discount
34
        double
                                      // Required deposit
                   deposit;
35 };
36
```

```
struct Package3
                                    // Sky Diving Package
37
38
    {
39
        int
                    num;
                                    // Number in party
40
        int
                    lodge1:
                                    // Number at 1st lodging choice
41
        int
                    lodge2;
                                    // Number at 2nd lodging choice
42
        double
                    baseCharges;
                                    // Base charges
43
        double
                    charges;
                                    // Total charges
44
        double
                    discount:
                                    // Discount
45
                                    // Cost of lodging
        double
                    lodging;
46
        double
                    deposit;
                                    // Required deposit
47
    };
48
49
    struct Package4
                                    // Spelunking Package
50
    {
51
        int
                                    // Number in party
                    num;
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
                                    // Required deposit
        double
                    deposit:
58
   };
59
60
    union Pack work is protected by United States copyright laws
61
62
        struct Package and imbressing student learning. Dissemination
        struct Package2 scuba this work (including on the World Wide Web)
63
        struct Package3 sky grity of the work and is not permitted. struct Package4 spe1;
64
65
66
    };
67
68
    struct Reservation
69
        int packNum;
70
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
77 const double SKY_DIVE_RATE = 400.0;
                                                  // Base rate - Sky diving
78 const double CAVE_RATE = 700.0;
                                                  // Base rate - Spelunking
79 const double CLIMB_INSTRUCT = 100.0;
                                                  // Climbing instruction
80 const double SCUBA_INSTRUCT = 100.0;
                                                  // Scuba instruction
81 const double DAILY CAMP RENTAL = 40.0;
                                                  // Daily camping equip. rental
82 const double DAY_LODGE_1 = 65.0;
                                                  // Lodging option (sky diving)
83
   const double DAY_LODGE_2 = 120.0;
                                                  // Lodging option (sky diving)
84
```

Program CS6-1 (continued)

```
85 // Function prototypes
     void openFile(fstream &);
     void saveInfo(Reservation &, fstream &);
    void climbing(Reservation &);
    void scuba(Reservation &);
    void skyDive(Reservation &);
91
    void spelunk(Reservation &);
92 int menu();
    void displayInfo(Reservation &);
94 void displayPack1(Reservation &);
95
    void displayPack2(Reservation &);
     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
         cout << fixed << showpoint << setprecision(2);
106
         openFile(file)ded solely for the use of instructors in teaching
107
         do their courses and assessing student learning. Dissemination
108
            or sale of any part of this work (including on the World Wide Web)
109
            vse rection the ments or the work and is not permitted.
110
             switch(selection)
111
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
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
```

```
135
136
     // Definition of function openFile.
137
     // Accepts an fstream object as an argument. The
    // file is opened for both input and output, in
138
139
     // binary mode.
     //********
140
141
142
     void openFile(fstream &file)
143
         const int SIZE = 256;
144
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
           This least open bected by United States copyright laws
158
           and Reopen the file for hinput and output in teaching
159
           file.open(fileName, ios::in_lios::out_los::binary);
160
         or sale of any part of this work (including on the World Wide Web)
161
           will destroy the integrity of the work and is not permitted.
162
163
164
     // 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 CS6-1 (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
186
         // Save the data.
187
         if (yorN == 'Y')
188
          {
189
              cout << "Saving reservation data.\n";</pre>
190
              file.write(reinterpret_cast<char *>(&group), sizeof(group));
191
              if (!file)
192
                  cout << "Could not write to file!\n";</pre>
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.
199
200
201
     int menu ( sale of any part of this work (including on the World Wide Web)
202
             will destroy the integrity of the work and is not permitted.
203
204
          int choice;
205
206
          cout << "High Adventure Travel Agency\n";</pre>
207
          cout << "----\n";
208
          cout << "1) Devil's Courthouse Adventure Weekend\n";</pre>
209
          cout << "2) Scuba Bahama\n";</pre>
210
          cout << "3) Sky Dive Colorado\n";</pre>
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
```

```
225
226
    // Definition of climbing function.
227 // Uses a Reservation reference parameter to hold the
228 // vacation package information.
229
    // This function calculates the charges for the
230
    // 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? ";
245
         cin >> group.packs.climb.needEquip;
246
         // Calculate base charges.
247
         group packs climb baseChanges = group packs climb num *
248
           and is provice MacRATFor the use of instructors in teaching
249
         group.packs.climb.charges = group.packs.climb.baseCharges;
         // Calculate 10% discount for 5 renumere on the World Wide Web)
250
         if (group packs climb num th4) work and is not permitted.
251
252
         {
253
             group.packs.climb.discount = group.packs.climb.charges
254
255
             group.packs.climb.charges -= group.packs.climb.discount;
256
         }
257
         else
258
             group.packs.climb.discount = 0;
259
         // Add cost of instruction.
         group.packs.climb.instruction = group.packs.climb.beginners
260
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 *
265
                   DAILY_CAMP_RENTAL * 4;
266
         group.packs.climb.charges += group.packs.climb.equipment;
267
         // Calculate required deposit.
268
         group.packs.climb.deposit = group.packs.climb.charges / 2.0;
269
     }
270
```

Program CS6-1 (continued)

```
272 // Definition of scuba function.
273 // Uses a Reservation reference parameter to hold the *
274 // vacation package information.
275 // This function calculates the charges for the
    // Scuba Bahama package.
277
278
279
    void scuba(Reservation &group)
280
281
        group.packNum = 2;
282
        cout << "\nScuba Bahama\n";</pre>
283
        cout << "----\n":
284
        cout << "How many will be going who need an instructor? ";</pre>
285
        cin >> group.packs.scuba.beginners;
286
        cout << "How many advanced scuba divers will be going? ";</pre>
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
            and is pseugaedarelely for the use of instructors in teaching
292
293
         group.packs.scuba.charges = group.packs.scuba.baseCharges;
        // Carculate 10% Parscounts for 15 (or Including on the World Wide Web)
294
        if (group packs scuba num > 14) work and is not permitted.
295
296
297
            group.packs.scuba.discount = group.packs.scuba.charges
298
299
            group.packs.scuba.charges -= group.packs.scuba.discount;
300
        }
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 //****************
312 // 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
```

```
319
     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;
330
         // 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? ";
340
         cin >> group.packs.sky.lodge1;
341
         cout is < w"How many will stay at Luxury Inn? with laws
         cin and group packs sky lodge2 use of instructors in teaching
342
343
         group packs sky lodging = (group packs sky lodge1 * nation
344
           DAY_LODGE_1) =+ (group.packs.sky.lodge2 +* DAY_LODGE_2);//eb)
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
353
    // vacation package information.
354
     // 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? ";
364
         cin >> group.packs.spel.num;
365
         cout << "How many will rent camping equipment? ";</pre>
366
         cin >> group.packs.spel.needEquip;
```

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400

401

402

403

404

405

406

407

408

409 410

411 412

413

414

415

416 417 }

switch (group.packNum)

break;

break:

break;

break;

case 1: displayPack1(group);

case 2: displayPack2(group);

case 3: displayPack3(group);

case 4: displayPack4(group);

// Definition of function displayPack1.

// information stored for vacation package 1.

Program CS6-1 (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 * 381 DAILY_CAMP_RENTAL * 4; 382 group.packs.spel.charges += group.packs.spel.equipment; 383 // Calculate required deposit. 384 group.packs.spel.deposit = group.packs.spel.charges / 2.0; 385 } 386 //********** 387 // Definition of function displayInfo. 388 389 // Uses a Reservation reference parameter to hold the // vacation package information. This function looks in the 390 // group.packNum member to determine which function to call 391 // to display the vacation package information. 392 393 394 395 void displayInfo(Reservation &group) 396

default: cout << "ERROR: Invalid package number.\n";</pre>

//*****************

// vacation package information. This function displays the

// Uses a Reservation reference parameter to hold the

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```
418
     void displayPack1(Reservation &group)
419
420
         cout << "Package: Devil's Courthouse Adventure Weekend\n";</pre>
421
         cout << "Number in party: "
422
              << group.packs.climb.num << endl;
423
         cout << "Base charges: $"</pre>
424
              << group.packs.climb.baseCharges << endl;
425
         cout << "Instruction cost: $"</pre>
426
              << group.packs.climb.instruction << endl;</pre>
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>
433
         cout << "Required deposit: $"</pre>
434
              << group.packs.climb.deposit << endl << endl;
435
436
437
438
     // Definition of function displayPack2.
439
     // Uses a Reservation reference parameter to hold the
440
     // vacation package information. This function displays the
441
     // information stored for a vacation package 2 pyright laws
442
            and is provided solely for the use of instructors in teaching
443
     void displayPack2(Reservation &group) cluding on the World Wide Web)
444
445
         will destroy the integrity of the work and is not permitted. cout << "Package: Scuba Bahama\n";
446
447
         cout << "Number in party: "</pre>
448
              << group.packs.scuba.num << endl;</pre>
449
         cout << "Base charges: $"
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;
459
     }
460
     //****************
461
462
     // Definition of function displayPack3.
463
     // Uses a Reservation reference parameter to hold the
464 // vacation package information. This function displays the
465
     // information stored for vacation package 3.
466
467
```

```
Program CS6-1
                      (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;</pre>
479
          cout << "Total charges: $"</pre>
480
              << group.packs.sky.charges << endl;</pre>
481
          cout << "Required deposit: $"</pre>
482
              << group.packs.sky.deposit << endl << endl;
483
     }
484
485
486
     // Definition of function displayPack4.
487
    // Uses a Reservation reference parameter to hold the
488
     // vacation package information. This function displays the
     // information stored for vacation package 4.
489
490
491
     void displayPack4(Reservation & group) cluding on the World Wide Web)
492
             will destroy the integrity of the work and is not permitted.
493
494
          cout << "Package: Barron Cliff Spelunk\n";</pre>
          cout << "Number in party: "</pre>
495
496
              << group.packs.spel.num << endl;</pre>
497
          cout << "Base charges: $"</pre>
498
              << group.packs.spel.baseCharges << endl;</pre>
499
          cout << "Equipment rental: $"</pre>
500
              << group.packs.spel.equipment << endl;</pre>
501
          cout << "Discount: $"</pre>
502
              << group.packs.spel.discount << endl;</pre>
503
          cout << "Total charges: $"</pre>
504
              << group.packs.spel.charges << endl;</pre>
505
          cout << "Required deposit: $"</pre>
506
              << group.packs.spel.deposit << endl << endl;</pre>
507
     }
508
509
510
     // 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
```

(program output continues)

```
516 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())
532
             file.clear(); // Clear any error state
533 }
Program Output with Example Input Shown in Bold
File name: resfile (Enter)
High Adventure Travel Agency

    Devil's Courthouse Adventure Weekend
    Scuba Bahama

    Scuba Bahama

2) Scuba Bahama
3) Sky Dive Colorado assessing student learning. Dissemination
4) Barron CPiffisperiank part of this work (including on the World Wide Web)
5) Show Booked Reservations egrity of the work and is not permitted.
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

Saving reservation data.

```
Program CS6-1
                    (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: v$1810,00 tected by United States copyright laws
Do you want to save this adata? (Y/N) y (Enter) t learning. Dissemination
Saving reservation data part of this work (including on the World Wide Web)
Will destroy the integrity of the work and is not permitted. 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
```

```
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.
```

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