```cpp
/* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * */
// graph_game.cpp
// A game using my graph implementation in C++.
// Author: Lauren E. Scott
// July 7, 2014
//
/* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * */


#include "graphcpp.h"


Room* init_game() {
    Room* r = new Room(1);
    Room* r2 = new Room(2);
    Room* r3 = new Room(3);
    Room* r4 = new Room(4);
    Room* r5 = new Room(5);
    Room* r6 = new Room(6);
    Room* r7 = new Room(7);
    Room* end_room = new Room(8);
    r->add_room(r2);
    r->add_room(r3);
    r2->add_room(r4);
    r2->add_room(r5);
    r5->add_room(r6);
    r5->add_room(r7);
    r6->add_room(end_room);


    Item* i = new Item();
    i->name = "Jewel";
    i->healthPlus = 4;
    r->add_item(i);

    Item* i2 = new Item();
    i2->name = "Axe";
    i2->atkPlus = 3;
    r4->add_item(i2);

    Item* i3 = new Item();
    i3->name = "Cape";
    i3->defPlus = 1;
    r6->add_item(i3);

```

```
46      Item* i4 = new Item();
47      i4->name = "Escape Crystal";
48      i4->is_end = true;
49      end_room->add_item(i4);
50
51      Enemy* g = new Enemy();
52      g->name = "Goblin";
53      g->health = 3;
54      g->attack = 1;
55      r3->add_enemy(g);
56
57      Enemy* d = new Enemy();
58      d->name = "Dragon";
59      d->health = 10;
60      d->attack = 2;
61      end_room->add_enemy(d);
62
63      return r;
64  }
65
66  void play_room(Room& r, Player& p) {
67      while (r.getEnemy()->name != "Dragon") {
68      char answer,a2;
69      Item* i;
70      r.print_room();
71      cout << "What would you like to do? " << endl;
72      cout << "[F]ignt" << endl;
73      cout << "[P]ick up item" << endl;
74      cout << "[M]ove" << endl;
75
76      cin >> answer;
77
78      switch(answer) {
79          case 'F':
80              break;
81          case 'P':
82              i = r.getItem();
83              cout << "You pick up the " << i->name << endl;
84              p.attack = p.attack + i->atkPlus;
85              p.defense = p.defense + i->defPlus;
86              p.health = p.health + i->healthPlus;
87              break;
88          case 'M':
89              cout << "Choose [N]orth, [S]outh, [E]ast or [W]est." << endl;
90              cin >> a2;
```

```
91              switch(a2) {
92                  case 'N':
93                      r = *(r.getNorth());
94                      break;
95                  case 'S':
96                      r = *(r.getSouth());
97                      break;
98                  case 'E':
99                      r = *(r.getEast());
100                     break;
101                 case 'W':
102                     r = *(r.getWest());
103                     break;
104                 default:
105                     cout << "Please enter a valid direction." << endl;
106                     break;
107             }
108             break;
109         default:
110             cout << "Please enter a valid answer (F, P, or M)." << endl;
111             break;
112     }
113     }
114
115 }
116
117
118
119
120 int main() {
121     bool end_game = false;
122     Player player;
123
124     Room* first_room = init_game();
125
126     play_room(*first_room, player);
127
128     cout << "You found the dragon!!" << endl;
129
130 }
131
```