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1  /* * * * * * * * * * * * * * * * * * * * * * * * * */
2  // graphcpp.h
3  // A graph implementation in C++.
4  // Author: Lauren E. Scott
5  // July 7, 2014
6  //
7  /* * * * * * * * * * * * * * * * * * * * * * * * * */
8
9  #include <iostream>
10 #include "linkedlistcpp.h"
11
12 using namespace std;
13
14 struct Enemy {
15     string name;
16     int health;
17     int attack;
18 };
19
20 struct Item {
21     string name;
22     int healthPlus = 0, defPlus = 0, atkPlus = 0;
23     bool is_end = false;
24 };
25
26 struct Player {
27     int health = 10;
28     int defense = 1;
29     int attack = 1;
30 };
31
32 class Room {
33
34 public:
35     Room(int i) { id = i, north = 0, south = 0, east = 0, west = 0, enemy =
36     ~Room() {}
37
38     int get_id() { return id; }
39     Room* getNorth() { if (north != 0) { return north; } else { cout << "No
40     Room* getSouth() { if (south != 0) { return south; } else { cout << "No
41     Room* getEast() { if (east != 0) { return east; } else { cout << "No Eas
42     Room* getWest() { if (west != 0) { return west; } else { cout << "No Wes
43     Item* getItem() { if (item != 0) return item; }
44     Enemy* getEnemy() { if (enemy != 0) return enemy; }
45     void add_room(Room* r);
```

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46     void add_enemy(Enemy* e);
47     void add_item(Item* i);
48     void print_room();
49
50
51 private:
52     int      id;
53     Room*    north;
54     Room*    south;
55     Room*    east;
56     Room*    west;
57     Enemy*   enemy;
58     Item*    item;
59
60 };
61
62 void Room::add_room(Room* r) {
63     if (north == 0) { north = r; }
64     else if (south == 0) { south = r; }
65     else if (east == 0) { east = r; }
66     else if (west == 0) { west = r; }
67     else cout << "Can't insert room." << endl;
68 }
69
70 void Room::add_enemy(Enemy* e) {
71     if (enemy == 0) { enemy = e; }
72     else cout << "Can't insert enemy, already has enemy." << endl;
73 }
74
75 void Room::add_item(Item* i) {
76     if (item == 0) { item = i; }
77     else cout << "Can't insert item, already has item." << endl;
78 }
79
80 void Room::print_room() {
81     cout << "----- Room " << id << " ----- " << endl;
82     if (north != 0) { cout << "North -> " << north->get_id() << endl; }
83     if (south != 0) { cout << "South -> " << south->get_id() << endl; }
84     if (east != 0) { cout << "East -> " << east->get_id() << endl; }
85     if (west != 0) { cout << "West -> " << west->get_id() << endl; }
86
87     if (enemy != 0) { cout << "Enemy: " << enemy->name << endl; }
88     if (item != 0) { cout << "Item: " << item->name << endl; }
89
90 }
```