

```
1 using Iteration3;
2
3 namespace UTbag
4 {
5     public class Tests
6     {
7         Bag b1;
8         Bag b2;
9         Item shovel = new Item(new string[] { "shovel" }, "a shovel", "This is a shovel");
10        Item sword = new Item(new string[] { "sword" }, "a sword", "This is a sword");
11        Item book = new Item(new string[] { "book" }, "a book", "This is a small book");
12        Item pc = new Item(new string[] { "pc" }, "a pc", "This is a small computer");
13
14        [SetUp]
15        public void Setup()
16        {
17            b1 = new Bag(new string[] { "bag" }, "a bag", "This is a bag");
18            b2 = new Bag(new string[] { "bag1" }, "a bag1", "This is a bag1");
19            b1.Inventory.Put(shovel);
20            b1.Inventory.Put(sword);
21            b2.Inventory.Put(book);
22            b2.Inventory.Put(pc);
23        }
24
25        [Test]
26        public void TestBagLocatesItems()
27        {
28            Assert.IsTrue(b1.Inventory.HasItem("sword"));
29            Assert.IsTrue(b1.Inventory.HasItem("shovel"));
30
31            Assert.IsTrue(b1.Locate(sword.FirstID) == sword);
32            Assert.IsTrue(b1.Locate(shovel.FirstID) == shovel);
33
34        }
35
36        [Test]
37        public void TestBagLocateItself()
38        {
39            Assert.IsTrue(b1.Locate(b1.FirstID) == b1);
40            Assert.IsTrue(b1.Locate("bag") == b1);
41        }
42
43        [Test]
44        public void TestBagLocatesNothing()
```

```
45     {
46         Assert.IsTrue(b2.Locate(shovel.FirstID) == null);
47     }
48
49     [Test]
50     public void TestBagFullDescription()
51     {
52         Assert.AreEqual(b1.FullDescription, "a bag, containing:\na shovel (shovel)\na sword (sword)\n");
53     }
54
55     [Test]
56     public void TestBagInBag()
57     {
58         b1.Inventory.Put(b2);
59         Assert.IsTrue(b1.Locate(b2.FirstID) == b2);
60         Assert.IsTrue(b1.Locate(sword.FirstID) == sword);
61         Assert.IsFalse(b2.Locate(shovel.FirstID) == shovel);
62
63         Assert.AreEqual(b1.FullDescription, "a bag, containing:\na shovel (shovel)\na sword (sword)\na bag1 (bag1)\n");
64         Assert.AreEqual(b2.FullDescription, "a bag1, containing:\na book (book)\na pc (pc)\n");
65
66     }
67 }
68
69 }
70 }
```