[TestClass]

public class UnitTest5

{

Book b1, b2, b3;

Amulet a1, a2, a3;

Course c1, c2, c3;

ValuableRepository repo;

[TestInitialize]

public void Init()

{

// Arrange

repo = new ValuableRepository();

b1 = new Book("1");

b2 = new Book("2", "Falling in Love with Yourself");

b3 = new Book("3", "Spirits in the Night", 123.55);

repo.AddValuable(b1);

repo.AddValuable(b2);

repo.AddValuable(b3);

a1 = new Amulet("11");

a2 = new Amulet("12", Level.high);

a3 = new Amulet("13", Level.low, "Capricorn");

repo.AddValuable(a1);

repo.AddValuable(a2);

repo.AddValuable(a3);

c1 = new Course("Spådomskunst for nybegyndere");

c2 = new Course("Magi – når videnskaben stopper", 157);

c3 = new Course("Et indblik i Helleristning", 180);

repo.AddValuable(c1);

repo.AddValuable(c2);

repo.AddValuable(c3);

}

[TestMethod]

public void BookConstructorWithOneParameter()

{

// Assert

Assert.AreEqual("ItemId: 1, Title: , Price: 0", b1.ToString());

}

[TestMethod]

public void BookConstructorWithTwoParameters()

{

// Assert

Assert.AreEqual("ItemId: 2, Title: Falling in Love with Yourself, Price: 0", b2.ToString());

}

[TestMethod]

public void BookConstructorWithThreeParameters()

{

// Assert

Assert.AreEqual("ItemId: 3, Title: Spirits in the Night, Price: 123,55", b3.ToString());

}

[TestMethod]

public void AmuletConstructorWithOneParameter()

{

// Assert

Assert.AreEqual("ItemId: 11, Quality: medium, Design: ", a1.ToString());

}

[TestMethod]

public void AmuletConstructorWithTwoParameters()

{

// Assert

Assert.AreEqual("ItemId: 12, Quality: high, Design: ", a2.ToString());

}

[TestMethod]

public void AmuletConstructorWithThreeParameters()

{

// Assert

Assert.AreEqual("ItemId: 13, Quality: low, Design: Capricorn", a3.ToString());

}

[TestMethod]

public void CourseConstructorWithOneParameter()

{

// Assert

Assert.AreEqual("Name: Spådomskunst for nybegyndere, Duration in Minutes: 0, Value: 0", c1.ToString());

}

[TestMethod]

public void CourseConstructorWithTwoParameters()

{

// Act

Course.CourseHourValue = 1100;

// Assert

Assert.AreEqual("Name: Magi – når videnskaben stopper, Duration in Minutes: 157, Value: 3300", c2.ToString());

}

[TestMethod]

public void CourseConstructorWithTwoParameters2()

{

// Act

Course.CourseHourValue = 875;

// Assert

Assert.AreEqual("Name: Et indblik i Helleristning, Duration in Minutes: 180, Value: 2625", c3.ToString());

}

[TestMethod]

public void AmuletSetPropertiesWorks()

{

// Act

a3.ItemId = "X";

a3.Quality = Level.high;

a3.Design = "Dolphin";

// Assert

Assert.AreEqual("ItemId: X, Quality: high, Design: Dolphin", a3.ToString());

}

[TestMethod]

public void BookSetPropertiesWorks()

{

// Act

b3.ItemId = "Y";

b3.Title = "Smoke on the Water";

b3.Price = 376.45;

// Assert

Assert.AreEqual("ItemId: Y, Title: Smoke on the Water, Price: 376,45", b3.ToString());

}

[TestMethod]

public void CourseSetPropertiesWorks()

{

// Act

c2.Name = "How to Ying-Yang";

c2.DurationInMinutes = 413;

// Assert

Assert.AreEqual("Name: How to Ying-Yang, Duration in Minutes: 413, Value: 6125", c2.ToString());

}

[TestMethod]

public void TestGetValueForBook1()

{

// Assert

Assert.AreEqual(b1.GetValue(), 0.0);

}

[TestMethod]

public void TestGetValueForBook2()

{

// Assert

Assert.AreEqual(b2.GetValue(), 0.0);

}

[TestMethod]

public void TestGetValueForBook3()

{

// Assert

Assert.AreEqual(b3.GetValue(), 123.55);

}

[TestMethod]

public void TestGetValueForAmulet1()

{

// Assert

Assert.AreEqual(20.0, a1.GetValue());

}

[TestMethod]

public void TestGetValueForAmulet2()

{

// Assert

Assert.AreEqual(27.5, a2.GetValue());

}

[TestMethod]

public void TestGetValueForAmulet3()

{

// Assert

Assert.AreEqual(12.5, a3.GetValue());

}

[TestMethod]

public void TestGetValueForCourse1()

{

// Assert

Assert.AreEqual(0.0, c1.GetValue());

}

[TestMethod]

public void TestGetValueForCourse2()

{

// Act

Course.CourseHourValue = 1100;

// Assert

Assert.AreEqual(3300.0, c2.GetValue());

}

[TestMethod]

public void TestGetValueForCourse3()

{

// Act

Course.CourseHourValue = 875;

// Assert

Assert.AreEqual(2625.0, c3.GetValue());

}

[TestMethod]

public void TestValuableRepositoryCount()

{

// Assert

Assert.AreEqual(9, repo.Count());

}

[TestMethod]

public void TestValuableRepositoryCount2()

{

// Act

Book dummy = new Book("Dummy");

repo.AddValuable(dummy);

// Assert

Assert.AreEqual(10, repo.Count());

}

[TestMethod]

public void TestValuableRepositoryGetValuable()

{

// Act

Book dummy2 = new Book("Dummy 2");

repo.AddValuable(dummy2);

Book result = (Book)repo.GetValuable("Dummy 2");

// Assert

Assert.AreEqual(dummy2, result);

}

[TestMethod]

public void TestValuableRepositoryGetTotalValue()

{

// Act

Course.CourseHourValue = 875;

// Assert

Assert.AreEqual(5433.55, repo.GetTotalValue());

}

}