CSSE 376 Lab3-UnitTesting-Questions

[Question 1 (1 pt)]

In what project is the source code found? In what project is the test code found?

- (i) Expedia
- (ii) ExpediaTest

[Question 2 (2 pts)]

What classes exist in the project?

[Does not consider the Test Classes since they're part of question 4]

AssemblyInfo.cs

Booking.cs

Car.cs

Flight.cs

Hotel.cs

User.cs

[Question 3 (4 pts)]

Explain, in your own words, the functionality that is supported by the Flight class.

Sets a user's Flight info based upon flight dates and distance—for use with Booking info.

[Question 4 (2 pts)] What are the test classes in the project?

BookingTest.cs

CarTest.cs

FlightTest.cs

HotelTest.cs

UserTest.cs

[Question 5 (4 pts)] Identify the various test methods in the UserTest class.

TestThatUserInitializes()

TestThatUserHasZeroFrequentFlierMilesOnInit()

TestThatUserCanBookEverything()

TestThatUserHasFrequentFlierMilesAfterBooking()

TestThatUserCanBookAFlight()

TestThatUserCanBookAHotelAndACar()

TestThatUserHasCorrectNumberOfFrequentFlyerMilesAfterOneFlight()

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[Question 6 (4 pts)] Identify at least three different functions that are supported by the Assert class. (Hint: type in \Assert" followed by a period in one of the test classes in the \ExpediaTest" project and use the documentation.)

DoesNotThrow Inconclusive IsNaN

[Question 7 (4 pts)] Please explain the functions that you identified briefly.

DoesNotThrow – verifies a delegate does NOT throw an exception Inconclusive - throws NUnit.Framework.InconclusiveException; causes the test to be reported as Inconclusive

IsNaN – verifies that the double passed-in is an NaN value

[Question 8 (4 pts)] You may have noticed that there are two methods on the assert class named AreEqual and AreSame. These methods may seem identical, but there is a critical difference between them. Please explain the difference.

AreEqual checks for the same value between two objects AreSame checks for the same reference between two objects

[Question 9 (4 pts)] What is the unit test TestThatHotelInitializes verifying?

It's verifying the Hotel class initializes correctly

[Question 10 (4 pts)] What is the generic algorithm for calculating getBasePrice? (You may look at Hotel.cs.)

45 * numberOfNightsToRent

[Question 11 (4 pts)] What cases are tested with these new tests?

The Base Price for a 1, 2, & 10-day stay

[Question 12 (4 pts)] Why don't we have to include Assert.IsNotNull(target) in each of these tests?

Since it's the first thing we tested and none of the functions being tested modify the target's existence, we do not need to check for a null target again as it would have been detected at the start of testing.

[Question 13 (4 pts)] Why does this test expect an exception? (Please look at Hotel.cs.)

The nights to rent must be >0; otherwise, the ArgumentOutOfRangeException will be thrown

[Question 14 (4 pts)] Please provide the attribute declaration to accompany a test case that expects an OutOfMemoryException.

[ExpectedException(typeof(OutOfMemoryException))]