

## CSSE 376 LAB #3

1. The source code is in Expedia, and the test code is in ExpediaTest.
2. The solution contains the classes User, Flight, Car & Hotel.
3. The flight class allows the ability to check if two flights are equivalent, the ability to create a flight, and a function to return the base price of the flight. Flight also contains the time which the flight leaves and returns, as well as the number of miles the flight covers.
4. The test classes are BookingTest, CarTest, FlightTest, HotelTest & UserTest.
5. UserTest contains the test methods Setup, TestThatUserInitializes, TestThatUserHasZeroFrequentFlierMilesOnInit, TestThatUserCanBookEverything, TestThatUserHasFrequentFlierMilesAfterBooking, TestThatUserCanBookAFlight, TestThatUserCanBookAHotelAndACar, TestThatUserHasCorrectNumberOfFrequentFlyerMilesAfterOneFlight & TearDown
6. AreEqual, AreNotEqual and AreNotSame are all supported by Assert.
7. AreEqual checks if two parameters are equal using the Equal method, while AreNotEqual tests that the two parameters are not equal using the same method. AreNotSame checks that they do not refer to the same object.
8. As explained above, AreEqual checks if the values in the parameters are equal, using the Equal method, while AreSame checks if they refer to the same object.
9. This unit test ensures that the Hotel constructor constructs a non-null object of type Hotel.
10. The Hotel class multiplies the number of nights by \$45 in order to obtain the base price for renting the hotel room.
11. These tests test that the getBasePrice works for any positive integer number of nights.
12. If the TestThatHotelInitializes method fails, then we can examine that area, and not worry about the rest of the methods failing as well. If these methods were to fail, they would be handled by the NUnit framework.
13. This test expects an exception because we are passing in a negative number to determine the number of nights the hotel stay is for. This is checked for in the constructor, and an exception is thrown if this happens.
14. [ExpectedException(typeof(OutOfMemoryException))]