

CSSE 376 Software Quality Assurance
Lab 3 – Unit Test
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1. The source code is found in *Expedia*, the test code is found in *ExpediaTest*.
2. In the project, there are five classes: *Booking*, *Car*, *Flight*, *Hotel*, *User*.
3. *Flight* class keeps a record of the flight's miles, and its leaving and returning date and calculates the base price based on the dates. It can also compares to see if too Flights are identical.
4. In the testing project, there are five testing classes: *BookingTest*, *CarTest*, *FlightTest*, *HotelTest*, *UserTest*.
5. The test methods in *UserTest* are:
TestThatUserInitializes(),
TestThatUserHasZeroFrequentFlierMilesOnInit(),
TestThatUserCanBookEverything(),
TestThatUserHasFrequentFlierMilesAfterBooking(),
TestThatUserCanBookAFlight(),
TestThatUserCanBookAHotelAndACar(),
TestThatUserHasCorrectNumberOfFrequentFlyerMilesAfterOneFlight()
6. *Assert.AreEqual(x, y)*, *Assert.IsEmpty(x)*, *Assert.Greater(x, y)*
7. *Assert.AreEqual(x, y)*: It asserts that *x* is equal to *y*
Assert.IsEmpty(x) : It asserts that *x* is empty
Assert.Greater(x, y) : It asserts that *x* is greater than *y*
8. *AreEqual* asserts objects values via equality test, *AreSame* asserts objects are the same exact objects (reference comparison).
9. It is verifying that the constructor of *Hotel* is indeed creating the object.
10. It costs \$45 per night to book the hotel.
11. They test the cases which the hotel is booked for one night, two nights and ten nights.
12. Because it has already been tested by *TestThatHotelInitializes()*, it is not the functionality to test in this "unit".
13. Because in the constructor of *Hotel*, if *nightsToRent* is negative, it throws *ArgumentOutOfRangeException*.
14. *[Test()]*
[ExpectedException(typeof(OutOfMemoryException))]