

```
1 using ClockApplication;
2
3 namespace ClockTest
4 {
5     public class Tests
6     {
7         private Clock clock;
8
9         [SetUp]
10        public void Setup()
11        {
12            clock = new Clock();
13        }
14
15        [Test]
16        public void ClockInitializes()
17        {
18            Clock ini = new Clock();
19            Assert.IsNotNull(ini);
20            Assert.AreEqual(0, ini.Seconds);
21            Assert.AreEqual(0, ini.Minutes);
22            Assert.AreEqual(0, ini.Hours);
23        }
24
25        [Test]
26        public void TestTickShouldIncrementSecondsByOne()
27        {
28            int initialSeconds = clock.Seconds;
29
30            clock.Tick();
31
32            Assert.AreEqual(initialSeconds + 1, clock.Seconds);
33        }
34
35        [Test]
36        public void TestTickShouldIncrementMinutesByOneWhenSecondsReachSixty()
37        {
38            int initialMinutes = clock.Minutes;
39            for (int i = 0; i <= 60; i++)
40            {
41                clock.Tick();
42            }
43
44            Assert.AreEqual(initialMinutes + 1, clock.Minutes);
45        }
46
47        [Test]
48        public void TestTickShouldIncrementHoursByOneWhenMinutesReachSixty
```

```
    ()  
49     {  
50         int initialHours = clock.Hours;  
51         for (int i = 0; i <= 3600; i++)  
52         {  
53             clock.Tick();  
54         }  
55  
56         Assert.AreEqual(initialHours + 1, clock.Hours);  
57     }  
58 }  
59 }
```