

```
1 using CounterTask;
2 using System.Diagnostics.CodeAnalysis;
3
4 namespace TestClock
5 {
6     public class Tests
7     {
8         private Clock myClock;
9         [SetUp]
10        public void Setup()
11        {
12            myClock = new Clock();
13        }
14
15        [Test]
16        public void TestClockTick()
17        {
18            // Test clock tick less than 1 minute
19            for (int i = 0; i < 59; i++)
20            {
21                myClock.Tick();
22            }
23            Assert.That(myClock.Hours, Is.EqualTo(0));
24            Assert.That(myClock.Minutes, Is.EqualTo(0));
25            Assert.That(myClock.Seconds, Is.EqualTo(59));
26
27            // Test clock tick when reaching over 1 minute
28            for (int i = 0; i < 60; i++)
29            {
30                myClock.Tick();
31            }
32            Assert.That(myClock.Hours, Is.EqualTo(0));
33            Assert.That(myClock.Minutes, Is.EqualTo(1));
34            Assert.That(myClock.Seconds, Is.EqualTo(59));
35
36            // Test clock tick when reaching over 1 hour
37            for (int i = 0; i < 3600; i++)
38            {
39                myClock.Tick();
40            }
41            Assert.That(myClock.Hours, Is.EqualTo(1));
42            Assert.That(myClock.Minutes, Is.EqualTo(1));
43            Assert.That(myClock.Seconds, Is.EqualTo(59));
44
45            // Test clock tick when reaching over 24 hours
46            for (int i = 0; i < 3600*24; i++)
47            {
48                myClock.Tick();
49            }
```

```
50         Assert.That(myClock.Hours, Is.EqualTo(1));
51         Assert.That(myClock.Minutes, Is.EqualTo(1));
52         Assert.That(myClock.Seconds, Is.EqualTo(59));
53
54         Assert.Pass();
55     }
56
57     [Test]
58     public void TestReset()
59     {
60         for (int i = 0; i < 3676; i++)
61         {
62             myClock.Tick();
63         }
64
65         myClock.Reset();
66         Assert.That(myClock.Hours, Is.EqualTo(0));
67         Assert.That(myClock.Minutes, Is.EqualTo(0));
68         Assert.That(myClock.Seconds, Is.EqualTo(0));
69
70         Assert.Pass();
71     }
72
73     [Test]
74     public void TestTimeFormat()
75     {
76         for (int i = 0; i < 3676; i++)
77         {
78             myClock.Tick();
79         }
80         string a = myClock.PrintTime();
81         Assert.That(a, Is.EqualTo("01:01:16"));
82
83         Assert.Pass();
84     }
85 }
86 }
```