

```
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(0));
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 }
```