```csharp
1  namespace RepasoCurso
2  {
3      public class CoffeMachine
4      {
5          public enum CoffeState
6          {
7              FULL,
8              HALF,
9              EMPTY
10         }
11
12         private double _maxCapacity;
13         private double _actualCapacity;
14         private CoffeState _state;
15
16         public double MaxCapacity => _maxCapacity;
17         public double ActualCapacity => _actualCapacity;
18         public CoffeState State => _state;
19
20         public CoffeMachine()
21         {
22             _maxCapacity = 1000.0;
23             _actualCapacity = 0.0;
24         }
25
26         public CoffeMachine(double MaxCapacity)
27         {
28             _maxCapacity = MaxCapacity;
29             _actualCapacity = _maxCapacity;
30         }
31
32         public CoffeMachine(double maxCapacity, double actualCapacity)
33         {
34             _maxCapacity = maxCapacity;
35             if (actualCapacity > _maxCapacity)
36             {
37                 _actualCapacity = _maxCapacity;
38             }
39             else
40             {
41                 _actualCapacity = actualCapacity;
42             }
43         }
44
45         public void EmptyCoffeMachine()
46         {
47             _actualCapacity = 0;
48         }
49
50         public void UseCoffeMachine(double value)
51         {
52             if (value < 0)
53                 return;
```

```
54
55              if (value > _actualCapacity)
56              {
57                  _actualCapacity = 0;
58              }
59              else
60              {
61                  _actualCapacity -= value;
62              }
63          }
64
65          public void AddCoffee(double value)
66          {
67              if (value < 0)
68                  return;
69              if (value + _actualCapacity > _maxCapacity)
70              {
71                  _actualCapacity = _maxCapacity;
72              }
73              else
74              {
75                  _actualCapacity += value;
76              }
77          }
78
79          public CoffeState GetState()
80          {
81              if (_actualCapacity == _maxCapacity)
82                  return CoffeState.FULL;
83              if (_actualCapacity == 0)
84                  return CoffeState.EMPTY;
85
86              return CoffeState.HALF;
87          }
88
89          private CoffeMachine Clone()
90          {
91              CoffeMachine coffeResult = new CoffeMachine();
92
93              coffeResult._maxCapacity = this._maxCapacity;
94              coffeResult._actualCapacity = this._actualCapacity;
95
96              return coffeResult;
97          }
98      }
99  }
```