```csharp
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//090 14 4920
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.IO;
using System.Linq;
using System.Reflection;
using System.Text;
using System.Threading;
using System.Windows.Forms;

namespace BarberoDormilon
{
    public partial class Form1 : Form
    {
        Thread barberShop = null;
        bool work = false;
        bool close = false;
        int unattended = 0;
        int time = 5;
        int[] sits = new int[5];

        public Form1()
        {
            InitializeComponent();
            CheckForIllegalCrossThreadCalls = false;
            this.pbBarber.SizeMode = PictureBoxSizeMode.StretchImage;
            this.pb0.SizeMode = PictureBoxSizeMode.StretchImage;
            this.pb1.SizeMode = PictureBoxSizeMode.StretchImage;
            this.pb2.SizeMode = PictureBoxSizeMode.StretchImage;
            this.pb3.SizeMode = PictureBoxSizeMode.StretchImage;
            this.pb4.SizeMode = PictureBoxSizeMode.StretchImage;
        }

        private void Window_Closing(object sender,
        System.ComponentModel.CancelEventArgs e)
        {
            if (barberShop != null) barberShop.Abort();
        }

        private void btnStart_Click(object sender, EventArgs e)
        {
            tbxTime.Enabled = false;
            btnStop.Enabled = true;
            btnStart.Enabled = false;
            time = Int32.Parse(tbxTime.Text);
            barberShop = new Thread(new ThreadStart(start));
            barberShop.Start();
        }

        private void BtnStop_Click(object sender, EventArgs e)
        {
            tbxTime.Enabled = true;
            btnStop.Enabled = false;
            btnStart.Enabled = true;
            work = false;
        }

        void start()
        {
            sits[0] = 0;
            sits[1] = 0;
            sits[2] = 0;
            sits[3] = 0;
            sits[4] = 0;
```

```
69              work = true;
70
71              while (work)
72              {
73                  addClient();
74                  cortarPelo();
75                  validaEstadoBarbero();
76                  Thread.Sleep(time*250);
77              }
78
79          }
80
81      void addClient()
82      {
83          Random rnd = new Random();
84          int cliente = close ? 0 : rnd.Next(0, 2);
85          for (int i = 0; i < sits.Length - 1; i++)
86          {
87              //asiento #i
88              if (sits[i] == 0)
89              {
90                  sits[i] = sits[i + 1];
91                  sits[i + 1] = 0;
92              }
93
94          }
95          if (sits[sits.Length - 1] == 0)
96          {
97              sits[sits.Length - 1] = cliente;
98          }
99          else
100         {
101             unattended += cliente;
102         }
103         validarImg();
104         lblClientsNo.Text = unattended + "";
105     }
106
107     void validarImg() {
108         if (sits[0] == 1) {
109             pb0.Image = Image.FromFile("C:\\git\\BarberoDormilon\\res\\filled.png");
110         }
111         else {
112             pb0.Image =
                Image.FromFile("C:\\git\\BarberoDormilon\\res\\available.png");
113         }
114         if (sits[1] == 1)
115         {
116             pb1.Image = Image.FromFile("C:\\git\\BarberoDormilon\\res\\filled.png");
117         }
118         else
119         {
120             pb1.Image =
                Image.FromFile("C:\\git\\BarberoDormilon\\res\\available.png");
121         }
122         if (sits[2] == 1)
123         {
124             pb2.Image = Image.FromFile("C:\\git\\BarberoDormilon\\res\\filled.png");
125         }
126         else
127         {
128             pb2.Image =
                Image.FromFile("C:\\git\\BarberoDormilon\\res\\available.png");
129         }
130         if (sits[3] == 1)
131         {
132             pb3.Image = Image.FromFile("C:\\git\\BarberoDormilon\\res\\filled.png");
133         }
134         else
```

```
135             {
136                 pb3.Image =
                    Image.FromFile("C:\\git\\BarberoDormilon\\res\\available.png");
137             }
138             if (sits[4] == 1)
139             {
140                 pb4.Image = Image.FromFile("C:\\git\\BarberoDormilon\\res\\filled.png");
141             }
142             else
143             {
144                 pb4.Image =
                    Image.FromFile("C:\\git\\BarberoDormilon\\res\\available.png");
145             }
146         }
147
148         void cortarPelo()
149         {
150             if (sits[0] == 1 && time == 5)
151             {
152                 --time;
153                 sits[0] = 0;
154             }
155             else if (time < 5 && time > 0) {
156                 --time;
157             }
158             else if (time == 0) {
159                 time = 5;
160             }
161         }
162
163         void validaEstadoBarbero()
164         {
165             if (time == 5)
166             {
167                 bool alone = true;
168
169                 for (int i = 0; i < sits.Length; i++)
170                 {
171                     if (sits[i] == 1)
172                     {
173                         alone = false;
174
175                         break;
176                     }
177
178                 }
179
180                 if (pbBarber.Image ==
                    Image.FromFile("C:\\git\\BarberoDormilon\\res\\empty.png"))
181                 {
182                     pbBarber.Image =
                        Image.FromFile("C:\\git\\BarberoDormilon\\res\\sleep.png");
183                 }
184                 else
185                 {
186                     pbBarber.Image =
                        Image.FromFile("C:\\git\\BarberoDormilon\\res\\awake.png");
187                 }
188             }
189             else
190             {
191                 pbBarber.Image =
                    Image.FromFile("C:\\git\\BarberoDormilon\\res\\work.png");
192             }
193         }
194     }
195 }
196
```