```
 1  using System;
 2  using System.Collections.Generic;
 3  using System.Linq;
 4  using System.Web;
 5  using System.Web.UI;
 6  using System.Web.UI.WebControls;
 7  using System.Data.OleDb;
 8
 9  namespace GIP_Smart.Pages
10  {
11      public partial class Home : System.Web.UI.Page
12      {
13
14          string query;
15          string connstring = Pages.connStrings.connString;
16
17
18          private string val1verbruik = "90deg";
19
20          public string Val1Verbruik
21          {
22              get { return val1verbruik; }
23              set { val1verbruik = value; }
24          }
25
26          private string val2verbruik = "90deg";
27
28          public string Val2Verbruik
29          {
30              get { return val2verbruik; }
31              set { val2verbruik = value; }
32          }
33
34          private string colorCodeverbruik = "#ffffff";
35
36          public string ColorCodeVerbruik
37          {
38              get { return colorCodeverbruik; }
39              set { colorCodeverbruik = value; }
40          }
41          //------------------------------------------------------------ ↵
              ---------------------
42          private string val1 = "90deg";
43
44          public string Val1
45          {
46              get { return val1; }
47              set { val1 = value; }
48          }
49
50          private string val2 = "90deg";
51
52          public string Val2
```

```
53          {
54              get { return val2; }
55              set { val2 = value; }
56          }
57
58          private string colorCode = "#ffffff";
59
60          public string ColorCode
61          {
62              get { return colorCode; }
63              set { colorCode = value; }
64          }
65
66          protected void Page_Load(object sender, EventArgs e)
67          {
68              Pages.Classes.Netwerkcommunicatie netwerkcommunicatie = new
                   Pages.Classes.Netwerkcommunicatie();
69              netwerkcommunicatie.Network();
70              netwerkcommunicatie.mqttClient.MqttMsgPublishReceived +=
                  netwerkcommunicatie.client_receivedMessage;
71
72              ProgressTextTemperature.InnerText = "0°C";
73              query = "SELECT Temperatuur FROM StopContact WHERE id =
                  (SELECT max(id) FROM StopContact);";
74              DisplayDataTemperature(connstring, query);
75
76
77              ProgressTextVerbruik.InnerText = "0%";
78              query = "SELECT Stroom FROM StopContact WHERE id = (SELECT
                  max(id) FROM StopContact);";
79              DisplayDataVerbruik(connstring, query);
80          }
81          protected void btnLogout_Click(object sender, EventArgs e)
82          {
83              Response.Redirect("Login.aspx");
84          }
85
86
87          private void CalculateActiveUsersAngleVerbruik(int TotalUser)
88          {
89              if (TotalUser == 0)
90              {
91                  Val2Verbruik = "90deg";
92                  Val1Verbruik = "90deg";
93                  ColorCodeVerbruik = "#ffffff";
94              }
95              else if (TotalUser < 50 && TotalUser > 0)
96              {
97                  double percentageOfWholeAngle = 360 * (Convert.ToDouble
                      (TotalUser) / 100);
98                  Val2Verbruik = (90 + percentageOfWholeAngle).ToString()
                       + "deg";
99                  Val1Verbruik = "90deg";
```

```
100                 ColorCodeVerbruik = "#ffffff";
101             }
102             else if (TotalUser > 50 && TotalUser < 100)
103             {
104                 double percentage = 360 * (Convert.ToDouble
                      (TotalUser) / 100);
105                 Val1Verbruik = (percentage - 270).ToString() + "deg";
106                 Val2Verbruik = "270deg";
107                 ColorCodeVerbruik = "#18bc9c";
108             }
109             else if (TotalUser == 50)
110             {
111                 Val1Verbruik = "-90deg";
112                 Val2Verbruik = "270deg";
113                 ColorCodeVerbruik = "#18bc9c";
114             }
115             else if (TotalUser >= 100)
116             {
117                 Val1Verbruik = "90deg";
118                 Val2Verbruik = "270deg";
119                 ColorCodeVerbruik = "#18bc9c";
120             }
121
122             ProgressTextVerbruik.InnerText = TotalUser + "°C";
123         }
124
125         private void DisplayDataVerbruik(string connstring, string
              query)
126         {
127             OleDbConnection connection = new OleDbConnection();
128             connection.ConnectionString = connstring;
129
130             try
131             {
132                 connection.Open();
133
134                 OleDbCommand command = new OleDbCommand();
135                 command.Connection = connection;
136                 command.CommandText = query;
137
138                 OleDbDataReader reader = command.ExecuteReader();
139
140                 while (reader.Read())
141                 {
142                     CalculateActiveUsersAngleVerbruik(Convert.ToInt32
                      (reader[0]));
143                 }
144             }
145             catch (OleDbException error)
146             {
147                 Console.WriteLine(error.Message);
148             }
149             finally
```

```
150             {
151                 connection.Close();
152             }
153         }
154 
155         private void CalculateActiveUsersAngleTemperature(int
              TotalUser)
156         {
157             if (TotalUser == 0)
158             {
159                 Val2 = "90deg";
160                 Val1 = "90deg";
161                 ColorCode = "#ffffff";
162             }
163             else if (TotalUser < 50 && TotalUser > 0)
164             {
165                 double percentageOfWholeAngle = 360 * (Convert.ToDouble
                      (TotalUser) / 100);
166                 Val2 = (90 + percentageOfWholeAngle).ToString() +
                      "deg";
167                 Val1 = "90deg";
168                 ColorCode = "#ffffff";
169             }
170             else if (TotalUser > 50 && TotalUser < 100)
171             {
172                 double percentage = 360 * (Convert.ToDouble
                      (TotalUser) / 100);
173                 Val1 = (percentage - 270).ToString() + "deg";
174                 Val2 = "270deg";
175                 ColorCode = "#18bc9c";
176             }
177             else if (TotalUser == 50)
178             {
179                 Val1 = "-90deg";
180                 Val2 = "270deg";
181                 ColorCode = "#18bc9c";
182             }
183             else if (TotalUser >= 100)
184             {
185                 Val1 = "90deg";
186                 Val2 = "270deg";
187                 ColorCode = "#18bc9c";
188             }
189 
190             ProgressTextTemperature.InnerText = TotalUser + "°C";
191         }
192 
193         private void DisplayDataTemperature(string connstring, string
              query)
194         {
195             OleDbConnection connection = new OleDbConnection();
196             connection.ConnectionString = connstring;
197 
```

```
198             try
199             {
200                 connection.Open();
201 
202                 OleDbCommand command = new OleDbCommand();
203                 command.Connection = connection;
204                 command.CommandText = query;
205 
206                 OleDbDataReader reader = command.ExecuteReader();
207 
208                 while (reader.Read())
209                 {
210                     CalculateActiveUsersAngleTemperature
                      (Convert.ToInt32(reader[0]));
211                 }
212             }
213             catch (OleDbException error)
214             {
215                 Console.WriteLine(error.Message);
216             }
217             finally
218             {
219                 connection.Close();
220             }
221         }
222     }
223 }
```