

```
1 using LiveCharts;
2 using LiveCharts.Wpf;
3 using System.Collections.Generic;
4 using System;
5 using System.Net.Http;
6 using System.Text.Json;
7 using System.Threading.Tasks;
8 using System.Windows;
9 using System.Windows.Controls;
10 using WebBug;
11 using System.Linq;
12
13 namespace WebBug
14 {
15     /// <summary>
16     /// Interaction logic for MainWindow.xaml
17     /// </summary>
18     public partial class MainWindow : Window
19     {
20         string url = "https://data.moenv.gov.tw/api/v2/aqx_p_432?
            api_key=e8dd42e6-9b8b-43f8-991e-
            b3dee723a52d&limit=1000&sort=ImportDate%20desc&format=JSON";
21         AQIData aqidata = new AQIData();
22         List<Field> fields = new List<Field>();
23         List<Record> records = new List<Record>();
24         List<Record> selectedRecords = new List<Record>();
25         SeriesCollection seriesCollection = new SeriesCollection();
26         public MainWindow()
27         {
28             InitializeComponent();
29             UrlTextBox.Text = url;
30             selectedRecords.Clear();
31         }
32
33         private async void GetWebDataButton_Click(object sender,
            RoutedEventArgs e)
34         {
35             ContentTextBox.Text = "正在抓取網路資料 ... ";
36
37             string jsonText = await FetchContentAsync(url);
38             ContentTextBox.Text = jsonText;
39             aqidata = JsonSerializer.Deserialize<AQIData>(jsonText);
40             fields = aqidata.fields.ToList();
41             records = aqidata.records.ToList();
42             selectedRecords = records;
43             StatusTextBlock.Text = $"共有 {records.Count} 筆資料";
44             DisplayAQIData();
45         }
46
47         private void DisplayAQIData()
48         {
49             RecordDataGrid.ItemsSource = records;
50             DataWrapPanel.Children.Clear();
```

```
51
52     foreach (var field in fields)
53     {
54         var propertyInfo = typeof(Record).GetProperty
55             (field.id);
56         if (propertyInfo != null)
57         {
58             string value = propertyInfo.GetValue(records[0]) as
59             string;
60             if (double.TryParse(value, out double v))
61             {
62                 CheckBox cb = new CheckBox
63                 {
64                     Content = field.info.label,
65                     Tag = field.id,
66                     Margin = new Thickness(3),
67                     Width = 120,
68                     FontSize = 14,
69                     FontWeight = FontWeights.Bold,
70                 };
71                 cb.Checked += UpdateChart;
72                 cb.Unchecked += UpdateChart;
73                 DataWrapPanel.Children.Add(cb);
74             }
75         }
76     }
77
78     private void UpdateChart(object sender, RoutedEventArgs e)
79     {
80         seriesCollection.Clear();
81
82         foreach (CheckBox cb in DataWrapPanel.Children)
83         {
84             if (cb.IsChecked == true)
85             {
86                 var tag = cb.Tag as String;
87                 ColumnSeries columnSeries = new ColumnSeries();
88                 ChartValues<double> values = new
89                 ChartValues<double>();
90                 List<String> labels = new List<String>();
91
92                 foreach (var record in selectedRecords)
93                 {
94                     var propertyInfo = typeof(Record).GetProperty
95                     (tag);
96                     if (propertyInfo != null)
97                     {
98                         string value = propertyInfo.GetValue
99                         (record) as string;
100                         if (double.TryParse(value, out double v))
101                         {
```

```
99         values.Add(v);
100         labels.Add(record.sitename);
101     }
102 }
103 }
104 columnSeries.Values = values;
105 columnSeries.Title = tag;
106 columnSeries.LabelPoint = point => $"{labels[(int)
point.X]}: {point.Y.ToString()}";
seriesCollection.Add(columnSeries);
107 }
108 }
109 }
110 AQIChart.Series = seriesCollection;
111 }
112
113 private async Task<string> FetchContentAsync(string url)
114 {
115     try
116     {
117         using (HttpClient client = new HttpClient())
118         {
119             return await client.GetStringAsync(url);
120         }
121     }
122     catch (Exception ex)
123     {
124         return $"發生錯誤: {ex.Message}";
125     }
126 }
127
128 private void RecordDataGrid_SelectionChanged(object sender,
SelectionChangedEventArgs e)
129 {
130     selectedRecords = RecordDataGrid.SelectedItems.Cast<Record>
().ToList();
131     StatusTextBlock.Text = $"共選取 {selectedRecords.Count} 筆資
料";
132 }
133
134 private void RecordDataGrid_LoadingRow(object sender,
DataGridRowEventArgs e)
135 {
136     e.Row.Header = e.Row.GetIndex() + 1;
137 }
138 }
139 }
```