

[1355] Quick-and-Dirty JSON Parsing

Because JSON is a text-based format, you can extract data from it using a couple of different methods. If the JSON format is relatively unchanging and fairly simple to read, you can use the standard string parsing tricks we looked at last week to get the data you need. Here's an example:

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Net;

namespace LWTech.LargestQuake
{
    class SimpleHistogram
    {
        static void Main()
        {
            Double maxMag = 0.0d;

            WebClient client = new WebClient();

            try
            {
                Stream stream = client.OpenRead("https://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/all_day.geojson");
                using (StreamReader reader = new StreamReader(stream))
                {
                    while (!reader.EndOfStream)
                    {
                        string line = reader.ReadLine();

                        if (line.Contains("\"mag\":"))
                        {
                            int start = line.IndexOf("\"mag\":", StringComparison.Ordinal) + 6;
                            string magString = line.Substring(start, 3);
                            magString = magString.Replace(",", "");
                            magString = magString.Replace("\"", "");

                            double mag = 0;
                            if (Double.TryParse(magString, out mag))
                            {
                                if (mag > maxMag)
                                    maxMag = mag;
                            }
                        }
                    }
                }
            }
            catch (IOException ex)
            {
                Console.WriteLine("A network error occurred. " + ex.Message);
                Console.WriteLine("Unable to continue.");
                return;
            }
        }
    }
}
```

```
    }  
  
    Console.WriteLine("Largest earthquake so far today was Magnitude " + maxMag);  
}  
}  
  
}
```

This program gets data from the US Geological Survey website in JSON format. Here is the URL of the feed:

https://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/all_day.geojson
(https://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/all_day.geojson)

To see the actual data, paste the link into your browser and review it to understand its format. Firefox will automatically show you the data in "pretty print" format. Alternately, you can paste the link into <https://jsonlint.com> [\(https://jsonlint.com/\)](https://jsonlint.com/).

Make SURE you understand the format of the JSON data before trying to write code to parse it.