06-03-17

Documentation for the DigitalNZ API app we created as our first Project 1 task.

Outline:

Create an app that sends a HTTP GET request to DigitalNZ, and accepts a return JSON string. The string then needs to be parsed into something we can use to display the return information to the screen. The data we required was Title, Description, and a URL link to an image. The link must be clickable when displayed in the app and open up a web browser.

Challenges and solutions:

1. Send a GET request to DigitalNZ.
   1. Create a HTTPWebRequest instance from System.Net.
   2. Register with DigitalNZ and receive a personal key.
   3. Construct a URL with the correct constraints applied. These include search term, number of pages, and image categories.
   4. Grab the response and use StreamReader to write results to a string.
2. Parse the response into a usable form.
   1. Find a third party library that can parse JSON. Choose Json.Net.
   2. Create a results class that holds the relevant information we require.
   3. Use JsonConvert.DeserializeObject<RootObject>(jsonString) to fill List of Result.
3. Use the parsed JSON to display results to the user
   1. Decided to use a DataGridView to display results.
   2. Used \_CellContentClick to define what column was clickable, to find what row was clicked, and used ProcessStartInfo to open the appropriate URL for that column.