

Creating_the_Backend_Page_and_Article_Manager

- Adding the Newtonsoft.Json NuGet package
- Creating Article Info and IarticleDataProvider in C#
- Creating the backend Article Manager in C#
- Adding GetNextArticle.aspx page for the client to request against

```
namespace MyBlog.src
{
    /// <summary>
    /// Holds article information.
    /// </summary>
    public class ArticleInfo
    {
        /// <summary>
        /// The identifier of this object
        /// </summary>
        public int Id { get; private set; }

        /// <summary>
        /// The titile of this object.
        /// </summary>
        public string Title { get; private set; }

        /// <summary>
        /// The content of this object
        /// </summary>
        public string Content { get; private set; }
    }
}
```

```
/// <summary>
/// Creates a new ArticleInfo object.
/// </summary>
/// <param name="id"></param>
/// <param name="title"></param>
/// <param name="content"></param>
public ArticleInfo(int id, string title, string content)
{
    Id = id;
    Title = title;
    Content = content;
}
```

Src (C#) > IArticleDataProvider.cs

```
namespace MyBlog.src
{
    /// <summary>
    /// An interface to an article provider.
    /// </summary>
    interface IArticleDataProvider
    {
        /// <summary>
        /// Initializes this provider.
        /// </summary>
        void Initialize();

        /// <summary>
        /// Gets an article by the provided identifier.
        /// </summary>
        /// <param name="id">The identifier to get the article by.</param>
        /// <returns></returns>
        ArticleInfo GetArticleById(int id);

        /// <summary>
        /// Gets the latest article
        /// </summary>
        /// <returns></returns>
        ArticleInfo GetLatestArticle();
    }
}
```

```
namespace MyBlog.src
{
    /// <summary>
    /// Manages articles in the system
    /// </summary>
    public class ArticleManager
    {

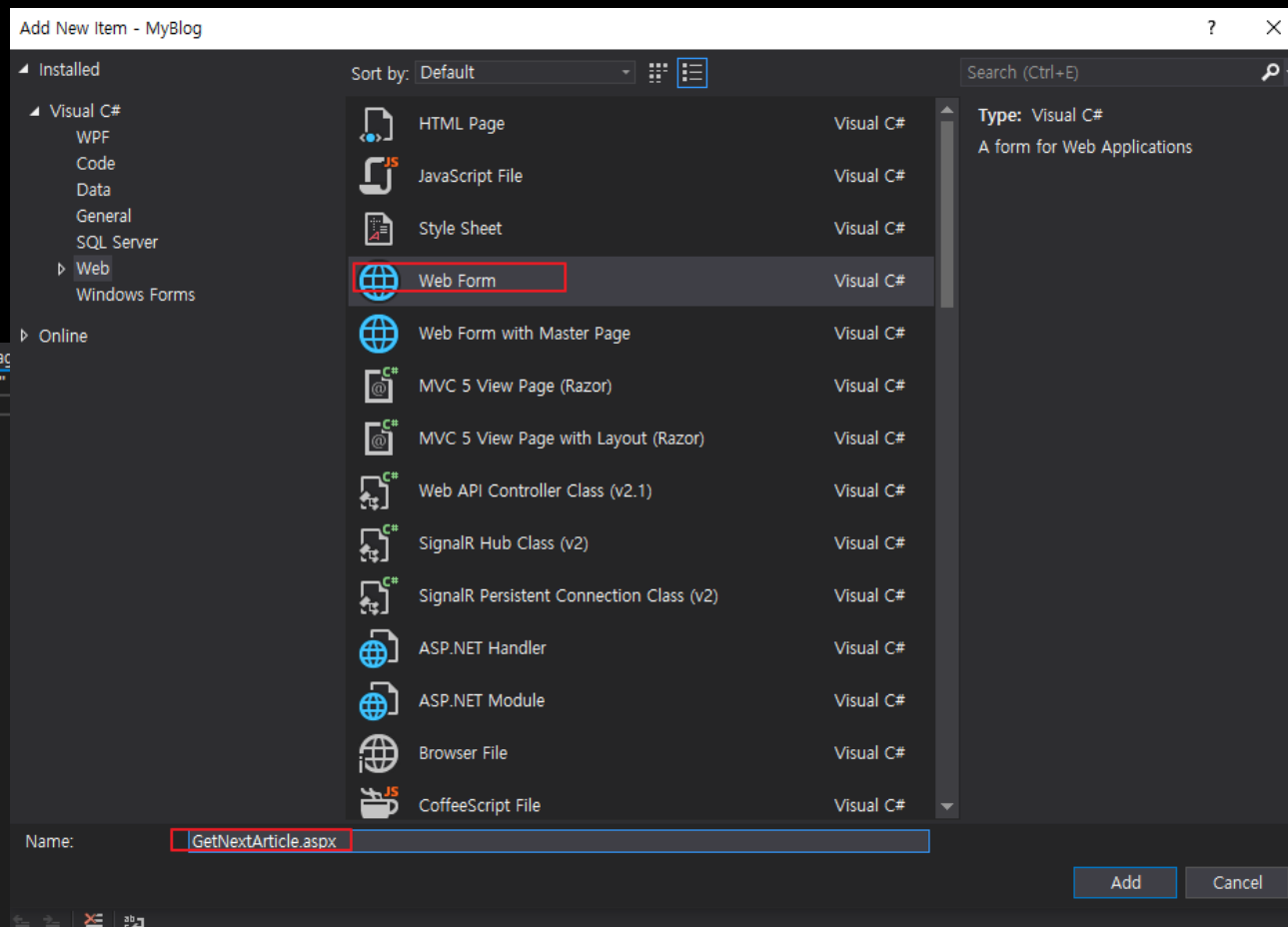
        private static IArticleDataProvider _provider;

        public static void Initialize()
        {
            //TODO: Hook up the data provider.

            //Initialize the data provider.
            _provider.Initialize();
        }
    }
}
```

GetNextArticle.aspx.cs GetNextArticle.aspx ArticleManag

```
1 <%@ Page Language="C#" AutoEventWireup="true"%>
2
```



Default.aspx

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'MyBlog' (1 project)

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Solution Explorer Team Explorer

Properties

DOCUMENT

ASP.NET

Culture	
Debug	
EnableSessionState	
Language	C#

GetNextArticle.aspx(show code)

```
using MyBlog.src;
using System;
namespace MyBlog{
public partial class GetNextArticle : System.Web.UI.Page    {
    protected void Page_Load(object sender, EventArgs e)        {
        //Make sure response is clean and set to return JSON.
        Response.Clear();
        Response.ContentType = "application/json; charset=utf-8";
        //Initialize the article manager.
        ArticleManager.Initialize();

        ArticleInfo articleInfo;
        //If no query string is provided, get the latest article.
        //Otherwise get the article by id.
        string articleIdStr = Request.QueryString["lastArticleId"];
        if (string.IsNullOrEmpty(articleIdStr)) {
            articleInfo = ArticleManager.GetLatestArticle();
        }else {
            if(int.TryParse(articleIdStr, out int articleId)) {
                articleInfo = ArticleManager.GetArticleById(articleId);
            }else {
                throw new Exception("Unable to parse article id.");
            }
        }
        //Now that an article has been obtainedm serialize it to JSON.
        string output = JsonConvert.SerializeObject(articleInfo);
    }
}
}
```

Default.aspx

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'MyBlog' (1 project)

MyBlog

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services

nager.ts

tHelper.ts

o.ts

.cs

nager.cs

taProvider.cs

NuGet: MyBlog

Browse

Installed

Updates 1

GetNextArticle.aspx.cs

GetNextArticle.aspx

ArticleManager.cs

IArticleDataProvider.cs*

ArticleInfo.cs

ArticleManag

Newtonsoft.Json by James Newton-King, 1.47G downloads v13.0.1

Json.NET is a popular high-performance JSON framework for .NET

Microsoft.Extensions.DependencyInjection by Microsoft, 879M downloads v6.0.0

Default implementation of dependency injection for Microsoft.Extensions.DependencyInjection.

Microsoft.Extensions.Logging by Microsoft, 844M downloads v6.0.0

Logging infrastructure default implementation for Microsoft.Extensions.Logging.

MyBlog

MyBlog.GetNextArticle

```

14 Response.ContentType = "application/json; charset=utf-8";
15
16 //Initialize the article manager.
17 ArticleManager.Initialize();
18
19 ArticleInfo articleInfo;
20
21 //If no query string is provided, get the latest article.
22 //Otherwise get the article by id.
23 string articleIdStr = Request.QueryString["lastArticleId"];
24 if (string.IsNullOrEmpty(articleIdStr)) {
25     articleInfo = ArticleManager.GetLatestArticle();
26 }else {
27     if(int.TryParse(articleIdStr, out int articleId)) {
28         articleInfo = ArticleManager.GetArticleById(articleId);
29     }else {
30         throw new Exception("Unable to parse article id.");
31     }
32 }
33 //Now that an article has been obtainedm serialize it to JSON.
34 string output = JsonConvert.SerializeObject(articleInfo);

```

using Newtonsoft.Json;

Newtonsoft.Json.JsonConvert

Generate variable 'JsonConvert' ▶

Generate type 'JsonConvert' ▶

CS0103 The name 'JsonConvert' does not exist in the current context

```

using MyBlog.src;
using Newtonsoft.Json;
using System;
...

```

[Preview changes](#)

GetNextArticle.aspx(show code)

```
namespace MyBlog{
public partial class GetNextArticle : System.Web.UI.Page {
    protected void Page_Load(object sender, EventArgs e) {
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        //Initialize the article manager.
        ArticleManager.Initialize();

        ArticleInfo articleInfo;

        //If no query string is provided, get the latest article.
        //Otherwise get the article by id.
        string articleIdStr = Request.QueryString["lastArticleId"];
        if (string.IsNullOrEmpty(articleIdStr)) {
            articleInfo = ArticleManager.GetLatestArticle();
        }else {
            if(int.TryParse(articleIdStr, out int articleId)) {
                articleInfo = ArticleManager.GetArticleById(articleId);
            }else {
                throw new Exception("Unable to parse article id.");
            }
        }
        //Now that an article has been obtainedm serialize it to JSON.
        string output = JsonConvert.SerializeObject(articleInfo);

        Response.Write(output);
        Response.End();
    }
}
```

