Exercise

Introduction

In this exercise you will create a basic .NET solution from scratch. Create this exercise using C# and Visual Studio (2015 or higher). This document describes the two major components, how you structure your solution is up to you.

The worker

This program retrieves the content of a JSON feed that exposes top headlines/news. The individual news should be stored in a SQL database (local or in Azure). The only news that should be stored are of current date.

* Create a worker solution (i.e. WebJob, Azure Functions, console application)
* Download the content using the *HttpClient* class from the *Microsoft.Net.Http* NuGet package to download the JSON.
* The program should get all the news from this JSON feed: <https://newsapi.org/v2/top-headlines?country=us&apiKey=9034101789784cea94358866ce8a262e>
* Use Entity Framework to save the data.
* Before saving the data, the database should be emptied.

The web application

This program shows a list of current news and offers the functionality to search ‘Title’ of the news from database. Retrieving the list of the news should happen only once on start of application. A response header should be used to indicate whether the application got its data from the database.

* The web application should be an [ASP.NET](http://asp.net/) Core MVC application.
* The name of the response header should be ‘from-database’.

Unit Test project

* Create unit test which tests the retrieval of news
* The test should verify/assert that the expected number of news is returned
* Create unit test to verify/assert text search through content of news

What we will look for

* Using common frameworks
* Cleverness & performance
* Separation of concerns
* The solution should build and run on other computers

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Finished?

Clean out the bin folders and zip the solution. Share your solution via an online git repository / drop box/other ways.