Assignment 11 – Api Versioning  
COS318 – FA2018

Due Date: November 29th, 2018  
Turn in all files using Moodle

It’s time to return to Survivor. Many have had the opportunity to play more than once, and there are some who have played four times. Just like the returning players of Survivor have learned from the mistakes of their first plays, hopefully you have learned from your past assignments. In this revisiting of the cloud storage assignment, you will add a new field to your controller and html, but must also support the existing version from the previous assignment at the same time.

1. **(40 Points) Html/Javascript**
   1. **HTML:** Make a copy of the html page from the cloud storage assignment. The existing html page will be knows as 1.0 and the new html will be 1.1. Add three things to this new page. First, a new field called “description.” Second, put some indication on the page that the user is on version 1.1 of the assignment (and add 1.0 to the original html.) Lastly, add a link to both pages that takes the user to the other page.
   2. **Javascript:** Update the javascript to send the api-version query parameter with all requests. The api-version that is sent should match the version displayed on the html page. If the description field is available (from the 1.1 page version), then also send that field in the JSON body to the server when posting new images.
2. **(40 Points)** **Server**
   1. **Controller:** Update your folder structure and namespaces to add a second ImagesController. They should be tagged with the api versions of 1.0 and 1.1. All new changes will be done to the 1.1 version of the controller.
   2. **Entities:** Update your folder structure and namespaces to add a second ImageEntity. The new ImageEntity should add a Description string that has a required length of 5. Hint: Make sure each controller is using the correct matching version of ImageEntity.
   3. **ImageTableEntity:** Modify ImageTableEntity to also store the description field. The conversion methods to and from ImageEntity and ImageTableEntity will also need to copy the description field (in the 1.1 version).
3. **(20 Points)** Code style, formatting, completeness, and quality.

Stretch Levels

If you already have a lot of experience with api versioning, or if you just won Survivor for the second time (only one person has ever done this!), try to complete these stretch levels for extra credit. If you try for the stretch levels, make sure to type it in the comments on Moodle so I don’t miss it.

**Colby Level**

Add some CSS to your page to make it look nicer. Background colors, font colors, or anything that looks good. This must more than whatever CSS you added to the Cloud Storage assignment.

**Sandra Level**

We are adding api versioning to an existing service, so to be the most friendly to existing clients, we shouldn’t require the api-version and just default to 1.0 if it isn’t specified. Specify the default version as 1.0.

The Rules

1. No inline styles or javascript.
2. Error messages must be “in-page” i.e. no pop-ups or alerts.
3. All external javascript libraries must be referenced using a CDN, not directly included in your assignment submission.
4. Service/data/model classes must not have any http, request, or response references.
5. Controller entity classes must not be used directly to store data on the server; translate them into a model (data storage) class before saving the data. Conversely, controllers must not send any model classes to the user; translate them into controller entity classes before sending the response.
6. You may not use any synchronous methods in your C# code wherever there is an async option.
7. All service class instances must be obtained using dependency injection.
8. All requests that submit a body to your server must have their JSON structure validated with ModelState. The controller is not allowed to validate the ModelState directly; this must be done in a filter.