## Final Project #2— Story Maker

Version 1.0 Due Last day of Class

## **Purpose:**

For this project you will build a website and web service that support creating stories where a story is a sequence of story blocks laid out on a time line. A story block is an HTML5 structure that contains an image or drawing, a caption, and text description, normally placed vertically in that order of the block. A block may, but need not, appear as a single page view. That is, a story may have subsequences that are collages of several blocks in a single view. The collage will probably provide additional text that spans the entire view below the contained story blocks<sup>1</sup>.

An example may help. Suppose the story is about your life. You have a collage of story blocks about things that happened to you very early in life. But some of the story blocks are important enough to stand alone, e.g., time you won an award or scholarship, etc., then more collages for your grad experience, first job, etc. It will be practical to assume that each page of the story is a collage which may have one or more story blocks embedded.

A story should be powered by no more than HTML5, CSS, and JavaScript. It is, after all static content except for the time line which is implemented with JavaScript timers. The site you are going to build is a MAKER of these stories and so you will need the power of Asp.Net MVC.

## **Requirements:**

The requirements for this project are to provide:

- 1. A website that supports:
  - a. Uploading images and text for story blocks.
  - b. Building story blocks from those parts and assigning them to a collage (a collage is just an html page).
  - c. Assigning collages to a time line by giving them an order and a time duration. You may wish to string the collages on the time line using page references.
  - d. Support editing of any story block or collage at any time after it has been created, e.g., the user can select from a list of all the story blocks or collages created to date for editing. Editing consists of changing the text and/or image in a story block. This view also supports saving the entire story.
  - e. Support for viewing the current state of the story by letting it run as it will when users view it, and adjusting the time duration of each collage.
- 2. The website will provide views for:
  - a. Home view that shows a user what the site does and provides a login facility.
  - b. View for showing a list of all of the collages and story blocks with controls for viewing, editing, and deleting.
  - c. Executing the story, perhaps using an iframe to show each collage, with controls for adjusting the time duration of each collage. Also provide a time zoom that divides or multiplies all the durations by a fixed amount greater than 1.0. That allows the designer to get a quick view of the entire story and think about its flow.
  - d. Editing operations, e.g., exchanging pictures or changing text.
  - e. A help page with instructions for the various site activities.
  - f. An administration view that supports the deletion and archiving of stories.
- 3. The site will provide two roles:
  - a. Developer who can create and edit stories, including those already created.
  - b. Administrator who can archive and delete stories.
- 4. A WebApi web service and WPF client that supports:
  - a. Uploading a story block, e.g., an image, caption, and associated text.
  - b. Downloading completed stories.
- 5. You are required to implement the website in Asp.Net MVC and the web service as and Asp.Net WebApi.
- 6. Login access that forces a link to any page to verify that you are a valid user, by checking the current session to see if you are currently logged in, otherwise redirecting you to a login page. You may use the Asp.Net provided login code, Asp.Net MVC login code, or develop a user control for this that you will make part of every page.
- 7. Your site **shall** use:
  - a. Both SQL server database(s) and XML file(s), of your design, to store state of the site, as described above.
  - b. Use LINQ to access state data.

<sup>&</sup>lt;sup>1</sup> You can accomplish this with div elements nested appropriately.

- c. Features unique to HTML5 for some parts of your site.
- d. Pages using each of the models: HTML with JavaScript and CSS, Asp.Net, and Asp.Net MVC. Note that you may use more than one project for your site.

You are expressly requested to refrain from using site editors like Dreamweaver, FrontPage, or other Web designers. You may use any of the facilities of Visual Studio 2013 or any other text editor of your choosing.

For the final demo, you will be asked to host your site in IIS on your own machine and do all navigation via links provided on the pages of your site<sup>2</sup>.

## **Please Note:**

Part of your grade is based on designing a pleasing website to meet these requirements. I will not specify the details of that design. *You* must decide the visual aspects and details for each page.

<sup>&</sup>lt;sup>2</sup> That means you're not supposed to navigate through a directory structure to find a page.