

Final Project #1– File Repository

Version 1.0

Due Last day of Class

Purpose:

For this project you will build a website and web service that support the storage, retrieval, and viewing of source code files. A user will be able to upload a file or folder, view any of the files in a folder, specify dependency information, and retrieve a selected file and all its dependencies, all from a browser. The web service supports synchronizing the contents of a server folder with a specified folder on the client machine.

This is intended to be a collaboration and content management tool in a small closed group, so we will not be concerned with clients maliciously creating junk files and folders.

Requirements:

The requirements for this project are to provide:

1. A website that supports:
 - a. Uploading a specified client file to a selected folder on the server.
 - b. Creating new folders on the server.
 - c. Specifying persistent dependency relationships between files selected by name and date.
 - d. Viewing a selected file's text (you will find the `<pre>...</pre>` tag useful for this).
 - e. Downloading a selected file and optionally all its dependencies. You may do this by building a list of files and asking the client to download each one by pressing a button or clicking a link.
2. The website will provide views for:
 - a. Showing a list of all of the file folders currently on the server, supporting the selection of more than one folder for subsequent operations.
 - b. Showing a list of all of the files in a selected folder or folders, supporting the selection of more than one file for subsequent operations. The following operations will be supported in this view:
 - i. Defining dependency relationships by mouse clicks.
 - ii. Viewing source code with forward and backward controls to move through a list of files.
 - iii. Downloading selected files and optionally their dependencies. If you find this difficult to do from a browser you omit as long as your web service has this capability.
 - c. A home view that provides a list of the site's functionality and gives access, after logging in, to the views specified above.
 - d. A help page with instructions for the various site activities.
 - e. An administration view that supports the deletion of files and renaming of folders.
3. The site will provide three roles:
 - a. User who can view and download files but not upload or create directories or modify dependencies.
 - b. Developer who can also upload files, create directories, and specify dependencies.
 - c. Administrator who can delete files and rename folders.
4. A WebApi web service and WPF client that supports:
 - a. Uploading a specified client folder with its contents using the same folder name or optionally renaming.
 - b. Downloading selected files and optionally all their dependencies.
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.
 - 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 site¹.

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.

¹ That means you're not supposed to navigate through a directory structure to find a page.