COMP 3700 Small Project 3 : JavaScript

30 Points

Due: October 6, 2023

You will write a web page that uses JavaScript code to control the display of images. This will require some HTML and CSS but mostly JavaScript.

Here are specifications.

1. Define a JavaScript "class" called Image using the technique in the 'Intro to JavaScript' handout. Each image will have properties for (1) its URL, (2) its alt attribute value, and (3) a descriptive caption. URL here means either web address or file name of local file. Your program will create the Image objects for at least six images of your choice (details below) and store them in an array called "images". The images may either be files included in a subfolder called "images" (*please keep them small!*) or they may be images accessible on the web via stable URLs (make sure you have the right to display them on your page – respect copyright and intellectual property). **(5 points)**

2. When the page is loaded, your program will get the current date and time and select an image based on the time of day. Thus your images should visually represent a time of day: morning, noon, evening, night. A theme would be fun (e.g. pictures of dogs at different times of day) but is not required. Use your imagination! Thus your image information should be stored in such a way that the time of day can be easily translated into an array index. Once the image is selected, your program will modify the HTML of the <img> element to specify that file's src and alt attributes. All images should be displayed at the same width and height. This could be a banner (very wide) or whatever. Edit local images as needed so they will not be distorted. **(5 points)**

3. The image's caption should be displayed below the image, along with the date and time of day and a time-appropriate message (e.g. It's 9:15 already on this fine April 2 morning!). Set up a timer to update it once per minute. **(5 points)**

4. Below this on the page, create a simple manual slide show feature. This can be based on the same set of images or a second set. Your choice. If you use a different set, put them into a second array using the technique described in #1. This feature will include an image display area that initially displays the first image in the array along with its caption. There will be two buttons below it, "Random" and "Next". When "Random" is clicked, an image will be randomly selected and displayed along with its caption. When "Next" is clicked, the next image in the list will be selected and displayed along with its caption. Cycle back to the beginning when the end is reached. **(10 points)**

5. This will not require a lot of HTML and CSS but use them appropriately. Your HTML, CSS and JavaScript will be in three separate files. Use your creativity in designing the content and styling of the page! **(5 points)**

See the back of the page for information on development tools.

You will need to determine what development tools to use for JavaScript.

- I have been using VS Code for editing, and the Chrome console for testing and debugging.

- Firefox Developer Edition is a special version of Firefox that supports HTML, CSS and JavaScript development. See `https://developer.mozilla.org/en-US/docs/Tools`

- Komodo IDE supports HTML, CSS, JavaScript and more (Python, PHP, etc.). It is not free but offers a 21-day full features trial. See `http://komodoide.com/`

- Komodo Edit is free and open source but is only an editor. Better than Notepad++. See `http://komodoide.com/komodo-edit/`

There are others.

To submit, publish your web page to the course web server (https://comp3700.otterbein.engineering) in a directory called project3 in the folder with your last name.