Project #5 (Photo Viewer)	CMSC389N
Due Thu Jul 2 11:59 pm	Summer 2015

Objectives

- To practice JavaScript functions, one-dimensional arrays, events and for loops.

Overview

For this project you will implement a photo viewer that allows you to look at photos available in a folder. A video illustrating the basic functionality of the application can be found at Application Video section. Notice that some functionality you need to implement is not part of the video (additional information below).

Grading

- (80 pts) Photo Viewer
    - (10 pts) Form
    - (15 pts) Function Implementations
    - (50 pts) Functionality
        - (20 pts) Moving from first photo to last one using "Next Photo"button (clicking on button several times).
        - (20 pts) Moving from last photo to first one using "Previous Photo" button (clicking on button several times).
        - (4 pts) Moving from first photo to last one when using "Previous Photo" button (single click on button).
        - (4 pts) Moving from last photo to first one when using "Next Photo" button (single click on button).
        - (2 pts) Providing an invalid range generates alert message.
    - (5 pts) Good Variable Names/Indentation
- (20 pts) Additional Functionality

Specifications

Before you start implementing the web page, download the zip file Viewer.zip. This file has a folder named Viewer which contains files you will need for the project. You need to write your program in a file named PhotoViewer.html.

Functions

Your project must define a class that defines and uses the following methods:

- **getArrayPhotosNames** - This method has the following prototype: *function getArrayPhotosNames();* This method will read the folder name, common name, start photo number, and end photo number and will return an array with the names of the photos that belong to the specified number range. Each photo's name consists of the folder name, followed by the common name, the photo's number and the ".jpg" extension. You can assume only .jpg files will be provided. Notice you don't need to add "/" (it is assumed the folder name will provide it). After reading the start and end photo numbers the method must check that the end number is larger than or equal to the start number. If that is not the case the message "Invalid Numbers" must be displayed via the alert function.
- **randomize** - This method has the following prototype: *function randomize(dataArray)*. This method will randomize the contents of the dataArray. You are free to use any approach to randomize the array contents as long as you don't use any JavaScript functions (aside from Math.random() or Math.floor) that randomize the array for you. Notice that this function should randomize any kind of array (e.g., array of numbers, array of strings, etc.).
- Feel free to add any functions you may need.

CSS

There will be no css file for this project. Any style information will be provided in the html file (in the head section in between <style></style> tags). The background color for the page is: #FFF1CC. The additional style element you must add is an underline under the Viewer heading and a border around the img element.

Photo Viewer Requirements

- Selecting "Slide Show" generates a sequential slide show based on the photo numbers.
- Selecting "Random Slide Show" generates a random slide show. Notice that if you continue pressing "Next Slide" eventually you will display the same set of random pictures.
- When the user selects the "Previous Slide" button the previous photo (previous in sequential order or previous in random order) must be displayed. If the currently displayed photo is the first photo then you must display the last photo.
- When the user selects the "Next Slide" button the next photo (next in sequential order or next in random order) must be displayed. If the currently displayed photo is the last photo then you must display the first photo.
- Only pictures in the specified number range should be used in any slide show.
- Your project must work with folders of pictures different from the one (i.e., umcp) we have provided.
- You can assume users have already selected "Slide Show" or "Random Slide Show" when clicking on "Previous Slide" or "Next Slide".
- The next picture should be displayed when we click on the currently displayed image.
- You must use good indentation.
- Your html file must be implemented using HTML5 and must validate.
- You must implement this project by yourself.
- Do not post your project in a web site (people will see your code) nor terpconnect.
- Make sure you view your code using Chrome (that is the environment we will use to grade your project).
- You do not need to provide any pseudocode.
- You must use good variable names.

- You can place your javaScript code in the html file for this project.

Additional Functionality

As you can see from description above, in order to move from one picture to the next you need to select "Previous Slide" or "Next Slide". For this part of the project you will add additional functionality so the pictures change automatically. You need to expand the basic functionality as follows:

- Add a button named "Auto Slide Show" that will keep displaying photos in the specified range.
- Add a button named "Auto Random Slide Show" that will keep displaying random photos in the specified range.
- Add a button named "Stop Auto Show" that stops either of the above shows. To stop an animation you need [clearInterval.](#)

Application Video

A video showing the functionality of your system can be found at [Video](#). A snapshot of the web site's main page is provided below.

Viewer

Photos' Folder: umcp/

Common Name: college

Start Photo Number: 1   End Photo Number: 1

[Slide Show] [Random Slide Show] [Previous Slide] [Next Slide]

[Reset]

Submission

Submit your project using the appropriate entry in the submit server.

Academic Integrity

Please make sure you read the academic integrity section of the syllabus so you understand what is permissible in our assignments. We want to remind you that we check your assignment against other students' assignments and any case of academic dishonesty will be referred to the University's Office of Student Conduct.