INFO 2420 Project 6
Web Site Resources and JavaScript

Behaviors Project 6 Objectives:

- Learn how to create graphical content with specified dimensions and formats for a Web site.
- Incorporate the site color palette into graphics and a background image.
- Learn how to resize images for consistent appearance when one is swapped for another.
- Plan and execute graphical components for use in JavaScript button rollovers or image swaps to make use of client-side scripting and reduced load times.
- Design and create a background image for a fixed width two column layout.
- Find freely-licensed JavaScript code and adapt JavaScript behaviors on a Web page with a button rollover, a logo image rollover and image thumbnail swapping.

Project Overview:

This project will require you to create more graphical content for your business' final web site. You will create or modify images for use in JavaScript rollovers and image swaps: a logo rollover, a print button rollover, and thumbnail image swaps. You will also need to create a two-column background image for use in Project 7. This will require you to create new button images and modify your logo image, and resize some of your business images for use in a thumbnail image swap. Refer to the GIMP Slideshows and GIMP Practices for help with sizing images, layers, and using filters and effects. Refer to the Intro to JavaScript Slideshow and the JavaScript Practice 1 for help with JavaScript. Additional resources for GIMP and JavaScript are also included below.

You will make use of your original logo image from Project 5 to create a new logo with variations. This new logo will be the exact same size, but will be swapped out when the user hovers the mouse over the original logo. You will also create two versions of a print button. The first image will be the default image and the second will be swapped out when the user does a mouse over of the other button. You should style your second button image so it looks different enough to provide a visual clue to the user, this is a button.

A performance optimization technique can be used with repeatable background images. You can create a vertical or horizontal slice of a needed background in a very small image file and then when you use the background-image on a page, repeat the background in either the X or Y direction to get a much larger background that is just the size needed. The trick is to think ahead when designing the image so it will repeat exactly as needed. We will make use of a horizontal background image that will be repeated in the Y direction in Project 7.

You will also place image thumbnails on a page with a large version of one of the images. You will implement the JavaScript needed to provide an onmouseover image swap for each thumbnail and also a title change. You will place this thumbnail image swap image files and associated JavaScript code also on the Graphics.htm page. This will require you to size thumbnail images and large images to be consistent in their width and height.

Getting Started:

Step 1. Create a folder called Project 6.
Copy the start.htm file (found on the Canvas home screen for the class, inside the start.zip folder) to your Project6 folder. Rename the start.html file Graphics.htm.
Just DownLoad my Graphic.htm file I put out onto Canvas
Remember to change the title of the file.

Step 2. Copy your SiteDesign.htm file from Project 3 to the Project 6 folder.
Create an Images folder in your Project 6 folder.
Add a Fullsize and Thumbnails subfolders in your Images folder.

Button Image Rollover:

**Step 3.** In this project, you will create two Print Page Buttons
that we will use in Project 8 to open a print version of a web page.
You will use a JavaScript image swap usually called a rollover, to have the Print Button change appearance as it is hovered over and hovered out.
There are many ways to create a button. You can be as creative as you like.

To Create A Simple Button:

1. Open up GIMP
2. Go to File->Create->Buttons->Simple Beveled Buttons, which should bring up the following screen.
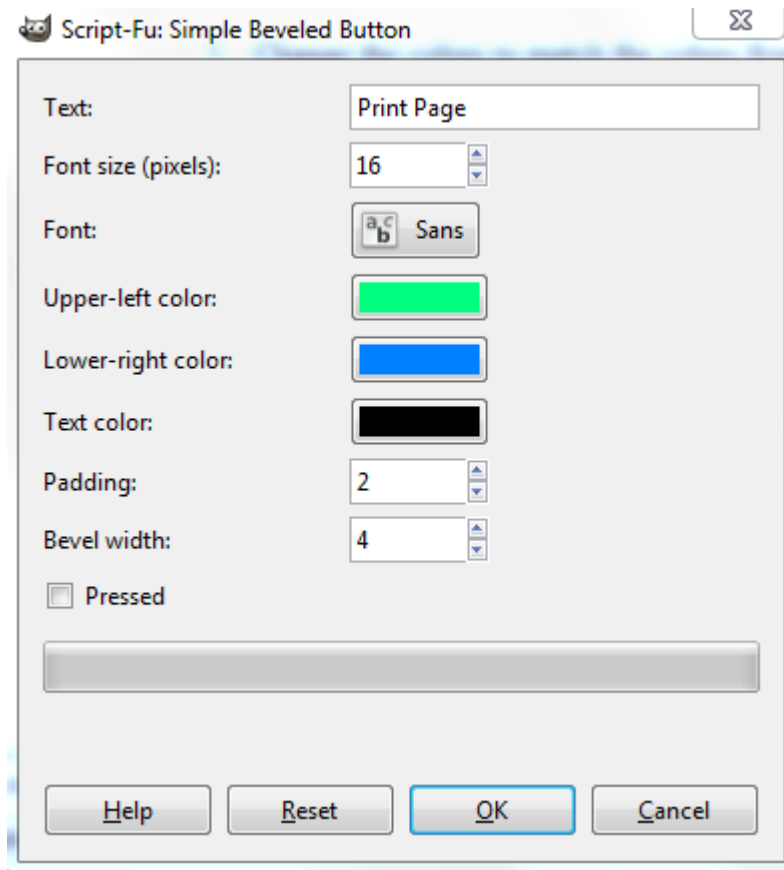
3. Change the text to say "Print Page"
4. Select the font and font size you like best.
5. Change the colors to match the colors from your color scheme.
6. Leave the defaults for everything else and click ok.
7. You should have a Print Button created in Gimp. Don't worry if it looks small. When you are attaching it to the web page, you will add the width and height specifications of 200 Width 50 Height.
8. Save the Print Button as Print1.xcf and export the image as Print1.jpg and save it inside your Images folder.
9. Repeat step 2 again, to bring up the Create Simple Beveled Buttons screen again. It should have saved what you inputted before.
10. Keep the text the same as "Print Page"
11. You can change the font and font size to be different or you can keep it the same.
12. Change the colors to be different than what you had for the Print1 Image. If you do not want to change the coloring, make sure to then change the font. There needs to be a noticeable difference between the two buttons.
13. After you have made a change to either the font or the coloring, make sure you check the box that says pressed, like the screen below.
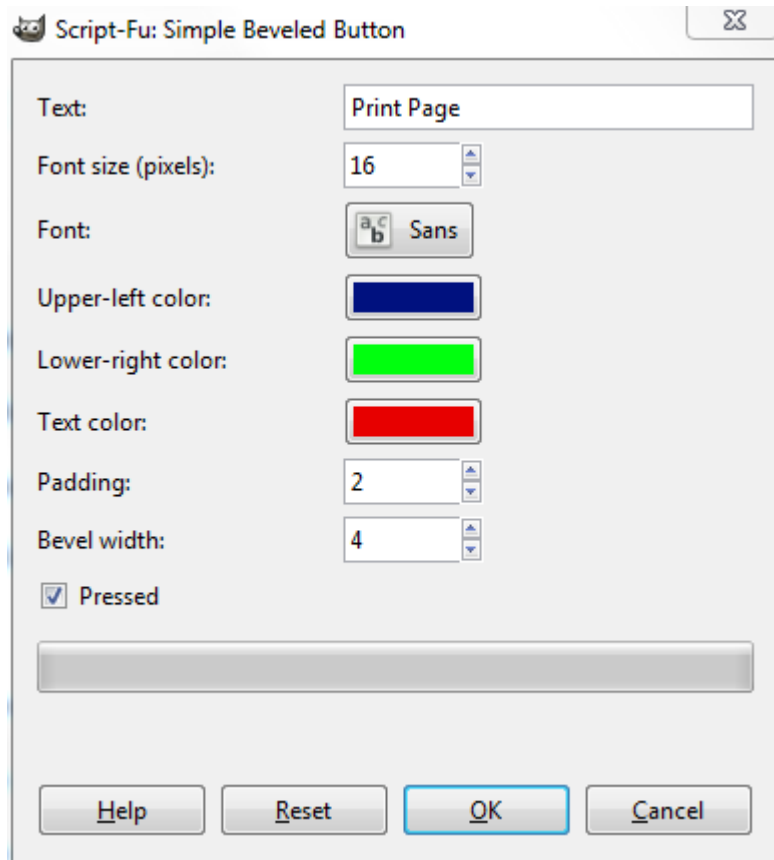
14. Click Ok and save this new Print Page Button as Print2.xcf and export the image as Print2.jpg. Save it inside your Images folder.

If this button looks too simple for you, you can check out these other GIMP Tutorials and make your button fancier.

Beveled Buttons in GIMP (.swf)
https://yoda.tc.uvu.edu/barthoki/ScreenCasts/Project6/BevelButton.swf

Rounded Buttons in GIMP (.swf)
https://yoda.tc.uvu.edu/barthoki/ScreenCasts/Project6/RoundButtons.swf

Gradient Button GIMP Tutorial
http://www.gimpusers.com/tutorials/create-soft-glassy-buttons

Cool GIMP Gradients for Buttons
http://gimp-tutorials.net/30-Ultimate-Web-20+Layer-Styles-for+-Gimp

Step 4. You now have two separate Print Page Buttons. Next we will add some code, so that when the Print Buttons are hovered in and out they change. In the body section of the html page we will add the following code.

```
<body onload="preloadImages()">
<div>
<a href="" onmouseover="document.getElementById('print').src='Images/print2.jpg';"
onmouseout="document.getElementById('print').src='Images/print1.jpg';">
<img src="Images/Print1.jpg" alt="Print Page" width="200" height="50"
id="print"></a>
</div>
```

Make sure to have the onload="preloadImages()" part inside the body tag.
This code is called **_document.getElementById_**. You can have whatever name you want inside the ('') part of the code right after the **_document.getElementById_**, but make sure that whatever name you use it stays the same for the mouseover, mouseout, and the id section of the <img> tag. Make sure the image file paths are correct, and add the width and height dimensions of **200 and 50** when typing out the full <img> tag.
Pull up the graphics.htm page in a browser and hover in and out of the button to make sure the rollover is working properly.

Logo Rollover

Create New Logo

Step 5. Go to GIMP again. Open up your Logo.xcf file from Project 5.

Step 6. Make a change to this image. Either change the coloring or change the way the letters flow etc. It matters not what the change is, there just needs to be a noticeable new change with the image.

Step 7. Make sure to save the new logo image as Logo2.xcf, so your old Logo1 image dose not get written over. Export the image as Logo2.jpg and save the image in your Images folder. If you haven't done so already, make sure your Logo image from Project 5 is saved in your Project 6 Images folder as well. You should have two separate logo images in your Images folder.

Create Logo Rollover

Step 8. To create the Logo Rollover, we will use the same code we used before with the Print Button Rollover.

In the body section of the code add the following code, underneath the Print Button Rollover code.

```
<div>
<a href="" onmouseover="document.getElementById('logo').src='Images/BackyardBirdLogo2.jpg';"
onmouseout="document.getElementById('logo').src='Images/BackyardBirdLogo.jpg';">
<img src="Images/BackyardBirdLogo.jpg" alt="Logo" id="logo"></a>
</div>
```

Again, we are using ***document.getElementById***. The code is exactly the same as before, except this time we made a new id name inside the inside the ('') part of the code right after the ***document.getElementById***, and that id name is consistent in all three parts. Again, make sure the image file paths are correct.
Pull up the graphics.htm page in a browser and hover in and out of the logo to make sure the rollover is working properly.

Image Swap

Setting up the Image Swap

Image Swap Container
Step 9. Inside the head section of the code, right underneath the <title> tag you will add the following embedded CSS.

```
<style type="text/css">
#thumbs, #image {
            width: 700px;
            border: solid 1px #000;
            text-align: center;
            margin: 0 auto 0 auto;
            color: #000;
            background: #eee;
            padding: 5px;
    }

    #thumbs {
            margin-top: 10px;
    }


    #thumbs img {
            border: solid 1px #000;
            margin: 5px;
    }

    #image{
            height:400px;
```

```
        }

        .instructions{
                font-style:italic;
        }
        </style>
```

This style code will add the needed styling to make a container around the images that will be swapped out in the image swap.

Creating Image Swap Images

Step 10. Go back to your Project 4 Images folder, and pick four images from either the About Us or Tributes folder inside your Project 4 Images folder. Make sure to pick four images that are all either horizontal or vertical.

Step 11. Open the first image you want to use in GIMP.

Step 12. Resize the image to be **150px by 100px.** You can resize images by either using the scale tool in GIMP or by going to:
Layers->Scale Layer
Click on the chain to break it, if GIMP tries to maintain the Aspect Ratio.

Step 13. Crop the image to get rid of GIMP's checkered background, so just the image is visible.

Step 14. Save the image as Image1Sm.xcf

Step 15. Export the image as Image1Sm.jpg and save the image inside the Thumbnails folder inside the Images folder.

Step 16. Repeat steps 11-15 again three times. You will pick three more images from your About Us and Tributes folders inside your Project 4 Images folder. Re-size each image to **150px by 100px** and crop as necessary. Save each image as Image2Sm.xcf, Image3Sm.xcf, and Image4Sm.xcf. Export each image as .jpg and save each image inside your Thumbnails folder inside your Images folder.

Step 17. You now have four little images in your Thumbnails folder. Time to make the big images. Right underneath the Project 6 instructions in Canvas are individual zip files. Find the zip file for your company and open it up.

Step 18. Inside the folder you will find large images. Find the four large images that match up with the four small images you just made.

Step 19. Open the first large image that matches your Image1Sm.jpg image in GIMP.

Step 20. Resize the image to be **400px by 267px.** Again you can re-size by either using the scale tool in GIMP or by going to:
Layers->Scale Layer
NOTE: If GIMP tries to maintain the Aspect Ratio, click on the chain to break it.

Step 21. Crop the image to get rid of GIMP's checkered background, so just the image is visible.

Step 22. Save the image as Image1Lg.xcf.

Step 23. Export the image as Image1Lg.jpg and save the image inside the Fullsize folder inside the Images folder.

Step 24. Repeat steps 17-23 again three times. Find the matching large images to your Image2Sm.jpg image, Image3Sm.jpg, and Image4Sm.jpg.from the zip file for your company in Canvas. Re-size each matching image to **400px by 267px** and crop as necessary. Save each image as Image2Lg.xcf, Image3Lg.xcf, and Image4Lg.xcf. Export each image as .jpg and save each large image inside your Fullsize folder inside your Images folder.

Creating Image Swap

Step 25. You now have four small images inside your Thumbnails folder, and four matching large images inside your Fullsize images folder. Time to add some code.

Step 26. Underneath your <style> code (still inside the head) you will add the following <script> code:

<script type="text/javascript">

<!-- Begin comment for older browsers

       var imgArray = new Array(
          'Image1Lg.jpg',
          'Image2Lg.jpg',
          'Image3Lg.jpg',
          'Image4Lg.jpg'

       );

       var titleArray = new Array(
          'Brave Bald Eagle',
          'Soaring Hawk',
          'Buzzing Hummingbird',
          'Wise Owl'

       );

```
                var imgPath = "Images/Fullsize/";

                function swapImage(imgID) {

                        var theImage = document.getElementById('theImage');
                        var textDiv = document.getElementById('bottomText');

                        var newImg;
                        var textTitle;

                        newImg = imgArray[imgID];
                        theImage.src = imgPath + newImg;

                        textTitle=titleArray[imgID];

                        textDiv.innerHTML = textTitle;
                }

                function preloadImages() {
                        for(var i = 0; i < imgArray.length; i++) {
                                var tmpImg = new Image;
                                tmpImg.src = imgPath + imgArray[i];
                        }
                }
// End comment for older browsers -->


</script>
```

Step 27. Be sure to have the <!-- Begin comment for older browsers at the top of the script code, and the // End comment for older browsers --> at the bottom of the script code. With the Arrays, have a comma after each array item, **except the last one.** Change the titles in the titleArray to different titles that match your images. The first title is for your first Image1, followed by Image2 etc. Also make sure your image file path to your large images is correct.

Step 28. We are not done yet. We still have some more code to add in the body section of the code. Right underneath your logo rollover code, you will add the following code:

```
        <p class="instructions">

        <div id="thumbs">
                <img src="Images/Thumbnails/Image1Sm.jpg" alt="BaldEagle"
onmouseover="swapImage(0);" />
                <img src="Images/Thumbnails/Image2Sm.jpg" alt="Hawk"
onmouseover="swapImage(1);" />
```

```
                <img src="Images/Thumbnails/Image3Sm.jpg" alt="HummingBird"
onmouseover="swapImage(2);" />
                <img src="Images/Thumbnails/Image4Sm.jpg" alt="Owl"
onmouseover="swapImage(3);" />

                <br />

        </div>
        <div id="image">

                <img id="theImage" src="Images/FullSize/Image1Lg.jpg" alt="Bald Eagle" />
                <h3 id="bottomText">Brave Bald Eagle</h3>
        </div>
```

Step 29. Again, make sure the image file paths are correct, and substitute out appropriate alts to match your image. Also make sure that the swapImage starts counting at 0 then goes from 1-3 for each of the different images. The code inside the <div id="image"> will be the first image to appear for the image swap when the page first loads. You can have whatever image you want, just make sure the image file path is correct with the correct alt and matching title for the image with the id="bottomText" part.

View the Image Swap in a browser. See that as you mouseover each small image, a bigger version of the image is shown below. Re-size the images in the image swap or the container size if necessary.

Repeatable Background Image

Step 30. In this project you will make a two-column background image that will be used in a central container area on your Home page in Project 7. This background image on your final web site will be repeated in the vertical, Y direction so it must be designed with this in mind. You should plan on creating two columns on this graphic.

Step 31. Create an image that is a total (**900px**) wide. You will split this (**900px**) image into two separate areas; (**250px**) for the left side, (**650px**), for the right side.

150px height as well.

Step 32. On the small left side, add some kind of brush effect. Decorate it somehow, but remember not to go to crazy with the decorating. Some link buttons will go on top for Project 7 and the links will need to be readable. Also the image will be repeated vertically in the Y direction, so the decorated side shouldn't look weird when it is repeated. When you get to Project 7 and you feel you need to change your background image you may.

Step 33. Make the right side a different color than your left side. Probably pick the right side of your image to be the same color as your background color from Project 3. It can be any color, **except white**. The background image must reflect the color scheme and theme you have chosen

for your fictional business. The background image should be tasteful and professional. An example background image is shown below:

Step 34. Save your image as 2colback.xcf. Remember the location for this .xcf file, just in case you want to change it for Project 7.

Step 35. Export your background image as a GIF, PNG, or JPG, and save the image inside your Images folder, for example: **2colback.gif** or **2colback.jpg** or **2colback.png**.

Step 36. Place your background image anywhere on the Graphics.htm page using an <img> tag. Just include it as a regular image for now. We will use it as a repeated background image in Project 7.

Note: Make sure only .gif, .png, or .jpg images are in your Images folder. You will not upload the GIMP .xcf files to the Yoda server. While you should make sure you save these in case you need to modify these graphics in the future. The GIMP .xcf files will not display in a web browser.

Note: If you run into any problems while putting this together, don't hesitate to contact the Instructor or TA for help. You can contact them by either sending them an e-mail in Canvas or talking directly to the TA during the tutoring times.

Putting It All Together:

Step 1. Make sure all images used in this project are included on the Graphics.htm page using the <img> tag. Add needed styling to the CSS style sheet. JavaScript should be used for all rollovers and image swaps. Remember to provide alt text for each <img> tag or you will have validation errors.

Step 2. Validate your Graphics.htm page using the HTML 5 standards

Procedure for Submission:

Submit your Project6 using the following steps:

Step 1. Log into your account on the Yoda web server and upload your entire Project 6 folder in the Projects folder on Yoda.

Step 2. View your Graphics.htm page from the Internet using a path similar to:
http://yoda.tc.uvu.edu/lastnamefirstname/Projects/Project6/Graphics.htm.
http://yoda.tc.uvu.edu/lastnamefirstname/Projects/Project6/SiteDesign.htm

Make sure all your images display correctly from the Internet path. Revalidate your Graphics.htm page from the Internet.

Step 3. Your instructor will grade your project from this Yoda web server after the due date has passed using the grading criteria below. You can see your grade form and feedback under the **ASSIGNMENTS** Graded tab, or from the course menu in **My Grades.**
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POINTS BREAKDOWN:

The Project will be graded on the following criteria:

Criteria	Points	
Two Print Page button images were created with an original and pressed button look, buttons well done	10	points
Print button images with two Print Page button images were used on the Graphics.htm page and needed JavaScript created a button image rollover	10	points
A modified logo2 image was created that added variation or effect, logo2 was well done	5	points
Logo and Logo2 images were used on the Graphics.htm page and needed JavaScript created an image rollover.	10	points
Fullsize and Thumbnail images were sized correctly at 72px/in	5	Points
Thumbnails were used on the Graphics.htm page to do JavaScript image swaps with the Fullsize images. Titles were also swapped for the Fullsize images. Used SiteDesign colors on image background and added needed CSS styles for surrounding <div>s.	10	Points
Background image met size of 900px and color requirements with two defined sides of 250px and 650px.	10	Points
Background followed artistic design principles and supported business theme and made use of SiteDesign colors.	5	Points
Validated Graphics.htm page to HTML 5.	5	Points
Submission was correct, all project images placed in an Images folder, in the Project 6 folder.	5	Points
TOTAL	**75**	**Points**