



# HTML5 and CSS3

## Part 3: Creating an Image Gallery and Uploading to the Internet

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# Introduction

Websites can be created by using one of many programming languages (e.g., HTML, JSP, PHP, ASP, ASP.NET, or Perl). Among those languages, HTML is the most basic text-based language that has been used in web design since 1989. HTML consists of two parts: 1) content that will be displayed in a web browser, and 2) markup or tags, which are encoded information that are generally hidden from web page viewers. This three-part handout will help users create a basic website using fundamental HTML knowledge that they can build on with more advanced techniques. This final part builds upon the website that was created in the first and second handouts. It covers creating an image gallery and image thumbnails, including the final process of uploading the website to the Internet.

## Downloading the Data Files

This handout includes sample data files that can be used for hands-on practice. The data files are stored in a self-extracting archive. The archive must be downloaded and executed in order to extract the data files.

- The data files used with this handout are available for download at <http://www.calstatela.edu/its/training/datafiles/html5p3.exe>.
- Instructions on how to download and extract the data files are available at <http://www.calstatela.edu/its/docs/download.php>.

## Creating an Image Gallery

An image gallery is an effective way to share photographs and images with friends, families, co-workers, etc. In an image gallery, thumbnails are used to represent the full size images which will be displayed when the thumbnails are clicked. Thumbnails are used to reduce the load time of a web page.

### Creating a New Page for the Image Gallery

In this lesson, a new page is created using the template file that was created in the HTML5 and CSS3 Part 2 handout. This new page will serve as an image gallery page.

To create a new page from the template file:

1. Launch **Notepad++**. In the ITS Training Program computer labs, click the **Start** button, point to **All Programs**, point to **Notepad++**, and select **Notepad++**.
2. Click the **File** menu and select **Open**. The **Open** dialog box opens.
3. Navigate to the data files folder, select the **template.html** file, and then click the **Open** button.
4. Click the **File** menu and select **Save As**. The **Save As** dialog box opens.
5. In the **File name** box, type **pictures.html**.

NOTE: Make sure to save the file in the same directory that contains the **index.html** file.

6. Click the **Save** button.
7. To add a header to the new page, add the word **Pictures** between the opening **<span class="header">** tag and the closing **</span>** tag.

## Creating the Image Gallery Table

Tables are ideal for organizing content symmetrically and consistently. This works not only for text, but images as well.

To create the image gallery table:

1. Add a new line after the closing `</div>` tag of the `<div class="trim">` tag, and then type the following code to create a table with two rows and three cells in each row.

```
<table>
  <tr>
    <td></td>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
    <td></td>
  </tr>
</table>
```

NOTE: `<table>` creates a new table. `<tr>` creates a new row. `<td>` creates a new cell.

2. To apply styles to the table, add a new line before the closing `</style>` tag, and then type the following CSS rule.

```
table{
  background-color:lightgrey;
  width:95%;
  margin-left:auto;
  margin-right:auto;
  text-align:center;
}
```

## Creating Thumbnails for the Full Size Images

In order to reduce both web page size and load time, all pictures on a page should be compressed as much as possible and, in some cases, replaced with their thumbnail counterparts. In this lesson, Adobe Photoshop is used to create thumbnails of the full size images. Photoshop is a powerful picture and image editor software that allows you to customize images to fit the needs of your website.

To create thumbnails using Photoshop:

1. Launch **Photoshop**. In the ITS Training Program computer labs, click the **Start** button, point to **All Programs**, point to **Adobe Design Premium CS5**, and select **Adobe Photoshop CS5**.

NOTE: Other alternative image editors which can be used to create image thumbnails are **Gimp** and **Paint.net**.

2. Click the **File** menu and select **Open**. The **Open** dialog box opens.
3. Navigate to the **images** folder located inside the data files folder, select the **1.jpg** file, and then click the **Open** button.
4. Click the **Image** menu and select **Image Size**. The **Image Size** dialog box opens.

- To maintain the ratio of width to height, make sure that the **Constrain Proportions** check box is selected.
- Under **Pixel Dimensions**, type **150** in the **Width** box. The value in the **Height** box automatically changes in proportion to the width.
- Click the **OK** button.
- To save the thumbnail with a different file name, click the **File** menu and select **Save As**. The **Save As** dialog box opens.
- In the **File name** box, type **tn\_** before the name of the original file (e.g., if the full size image is named **1.jpg**, the thumbnail of the same image should be saved as **tn\_1.jpg**).
- Click the **Save** button. The **JPEG Options** dialog box opens.
- Click the **OK** button.
- Repeat steps 2 through 11 to create thumbnails for the remaining numbered images (**2.jpg**, **3.jpg**, **4.jpg**, **5.jpg**, and **6.jpg**).

## Inserting the Thumbnails into the Table Cells

In this lesson, the thumbnails are inserted into each table cell so that they can then be linked to the full size images.

To insert the thumbnails into the table cells:

- In **Notepad++**, place the cursor between the first opening **<td>** tag and its corresponding closing **</td>** tag, and type ****. This inserts the thumbnail of the first image into the first table cell.
- Repeat step 1 to insert the remaining thumbnails (**tn\_2.jpg**, **tn\_3.jpg**, **tn\_4.jpg**, **tn\_5.jpg**, and **tn\_6.jpg**) into the remaining table cells (see Figure 1).

```

<table>
  <tr>
    <td></td>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
    <td></td>
  </tr>
</table>

```

Figure 1 – HTML Code of Table with Thumbnails

## Linking the Thumbnails to the Full Size Images

In this lesson, the thumbnails are linked to their corresponding full size images. When a viewer clicks on a thumbnail, the full size image will open in a new browser window.

To link the thumbnails to the full size images:

- To link the first thumbnail, add **<a href="images/1.jpg" target="\_blank">** before ****, and then add the closing **</a>** tag after ****.
- Repeat step 1 to link the remaining thumbnails to their corresponding full size images (see Figure 2).

```

<table>
  <tr>
    <td><a href="images/1.jpg" target="_blank"></a></td>
    <td><a href="images/2.jpg" target="_blank"></a></td>
    <td><a href="images/3.jpg" target="_blank"></a></td>
  </tr>
  <tr>
    <td><a href="images/4.jpg" target="_blank"></a></td>
    <td><a href="images/5.jpg" target="_blank"></a></td>
    <td><a href="images/6.jpg" target="_blank"></a></td>
  </tr>
</table>

```

Figure 2 – HTML Code of Table with Linked Thumbnails

## Uploading to the Internet

After the website has been created, it needs to be uploaded to a web server so that it can be viewed by everyone. Web space is available on the CSULA web server for publishing educational, research, and other academic related material. There are also several free web hosting services available on the web.

### Uploading the Files to the CSULA Web Server

In this lesson, the website is uploaded to a temporary directory on the CSULA web server. This directory is intended to be used during the HTML5 Part 3 workshop for demonstration purposes only.

To upload the files to the CSULA web server using Secure FTP:

1. Click the **Start** button, point to **All Programs**, point to **INTERNET apps - Utils**, point to **Secure - SSH FTP**, and select **Secure File Transfer Client**.
2. Click the **Connect** button on the **Toolbar** (see Figure 3). The **Connect to Remote Host** dialog box opens.



Figure 3 – Connect Button on the Toolbar

3. In the **Host Name** box, type **ftp.calstatela.edu**.
4. In the **User Name** box, type **trainer**.
5. Leave the entry in the **Port Number** box as **22**.
6. Click the **Authentication Method** arrow and select **Password** from the list.
7. Click the **Connect** button. The **Message from the server** dialog box opens.
8. Click the **OK** button to agree to Cal State L.A.'s policies and user guidelines regarding appropriate use and confidentiality. The **Enter Password** dialog box opens.
9. In the **Password** box, enter the password provided by the trainer during the workshop.
10. Click the **OK** button. The left pane of the window displays the files on your local computer, and the right pane displays the files on the server.
11. In the right pane, change the path from **/home/trainer** to **/www/www/tmp/workshop**, and then press the **Enter** key (see Figure 4).

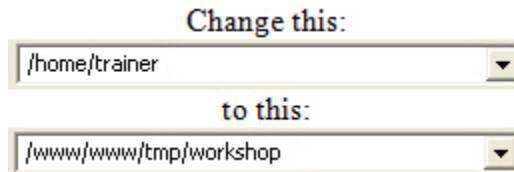


Figure 4 – Changing the Path

12. To upload the files, drag them from the local computer (left pane) to the server (right pane).
13. To view the website, open a web browser and go to <http://www.calstatela.edu/tmp/workshop/>.

## Alternate Method for Uploading to the Internet

There are many companies that offer free web hosting services. In this lesson, *000webhost.com* is used to host the website. Before you can upload the files, you must first create an account.



Figure 5 – 000webhost.com Home Page

To create a free hosting account:

1. Open **Mozilla Firefox** or any other web browser and go to <http://www.000webhost.com>.
2. On the right side of the home page, click the **Sign Up** button (see Figure 5). The **Order Free Web Hosting** page displays.
3. Type the desired subdomain name in the **Subdomain** field (the second form field).  
**NOTE:** Subdomains are free, but they are always attached to a main domain (e.g., mymail.calstatela.edu). If you want your own domain (e.g., calstatela.edu), you can purchase it online for various prices.
4. Fill out the rest of the form. Make sure to type the CAPTCHA text and select the **I agree to Terms Of Service** check box.
5. Click the **Create My Account** button. The **List of your domains** page displays and an e-mail is sent to the e-mail address you provided.

6. In order to confirm your registration, click the confirmation link in the e-mail sent to you by 000webhost.com. After the site builds, an addition e-mail is sent to you with all your account information.

To upload the files:

1. Go to <http://members.000webhost.com/login.php> and log in with your 000webhost.com account.
2. On the **List of your domains** page, click the **Go to CPanel** link.
3. In the **Files** group, click **File Manager** (see Figure 6). The **File Manager** page displays in a new window.

**NOTE:** After a period of inactivity, the system will automatically log you out and prompt you for a password. To continue, type your 000webhost.com account password in the **Password** field, and then click the **Continue** button.

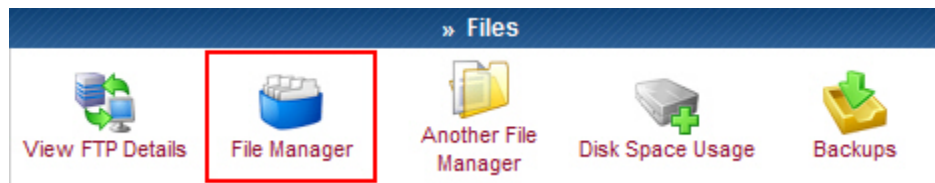



Figure 6 – Files Group

4. Under the **Name** column, click the **public html** folder.
5. Select the check box next to the **default.php** file, and then click the **Delete** button. The **Delete directories and files** page displays.
6. Click the green check mark  to confirm, and then click the blue back arrow  to return to the **File Manager** page.
7. Click the **Upload** button. The **Upload files and archives** page displays.
8. In the **Files** section, click the **Browse** button. The **Choose File to Upload** dialog box opens.
9. Navigate to the folder that contains the website files, select the **index.html** file, and then click the **Open** button. The file location is entered into the **Browse** box and a new **Browse** button appears.
10. Repeat steps 8 and 9 to add the **videos.html** and **pictures.html** files.
11. Click the green check mark to upload the files, and then click the blue back arrow to return to the **File Manager** page.
12. Click the **New Dir** button to create a new folder. The **Create new directories** page displays.
13. Type **images** in the first **New directory name** field.
14. Click the green check mark to create the folder, and then click the blue back arrow to return to the **File Manager** page.
15. Under the **Name** column, click the **images** folder.
16. Click the **Upload** button. The **Upload files and archives** page displays.
17. In the **Files** section, click the **Browse** button. The **Choose File to Upload** dialog box opens.
18. Navigate to the **images** folder of the website, select the **1.jpg** file, and then click the **Open** button. The file location is entered into the **Browse** box and a new **Browse** button appears.
19. Repeat steps 17 and 18 to add the remaining images (**2.jpg**, **3.jpg**, **4.jpg**, **5.jpg**, **6.jpg**, **tn\_1.jpg**, **tn\_2.jpg**, **tn\_3.jpg**, **tn\_4.jpg**, **tn\_5.jpg**, **tn\_6.jpg**, **csula\_banner.gif**, and **darkTile.gif**).

20. Click the green check mark to upload the files, and then click the blue back arrow to return to the **File Manager** page.
21. To view the website, copy your domain located in the upper-right corner of the **File Manager** page, paste it into the web browser's **Address** bar, and then press the **Enter** key. The website is now on the web.