

CIS 435/525 Fall 2015 Web Technology

Project 1: Creating a Personal Web Site

Assigned: 9/17/2015

Due: 10/1/2015

Total Points: 50

Introduction

The purpose of this project is to practice writing basic web pages with HTML and CSS and deploy them. You will have to write two static web pages and two style sheets. You can do this using a text editor such as TextPad or Notepad editor. You are not allowed to use any HTML-generating tools, such as FrontPage, for any part of this project. The first web page is your UMD personal home page. The second web page is your CIS435/525 course page, where you will post your finished projects.

Part 1: Personal Home Page

Create a page named **index.html** that describes you. On your page, include some or all of the following information (just a suggestion):

- Your name
- A short bio or description of yourself.
- A list of classes you are taking right now. Make a link to your CIS435 course web page. *Hints: Use relative URLs so that links don't break as the pages are moved. All file names are case sensitive.*
- Your 3 favorite sports, movies, books, or TV shows. Make at least one link to an interesting site.
- Two images (e.g. one of your personal pictures).
- Include a table.
- Should use at least 15 different HTML tags

Part 2: Personal CIS435/525 Course Web Page

Create a personal course web page that describes the course and a list of topics and assignments.

Part 3: Style Your Page with CSS

Create two style sheets to improve the appearance of your web pages. The pages must have the same visual structure to give the site consistency and the two style sheets should define different color schemes and fonts and be interchangeable (i.e. all pages should work with either style sheet). You should define the styles for each different element used in your web pages.

Provide a link or button in your web pages to allow users to switch between the two different style sheets. This can be implemented using JavaScript, or make two copies for each HTML file and link each copy to a different CSS file.

Part 4: Validate Your Page and CSS

Validate your HTML and CSS code to make sure they match the HTML specifications. To run the validators, do the following:

1. Open <http://validator.w3.org/> (for HTML) or <http://jigsaw.w3.org/css-validator/> (for CSS)
2. Click Browse in the Validate by File Upload section
3. Locate the local file and click Open
4. Click Check
5. If there are any errors, fix the first one, then repeat steps 1 through 4.

The key thing is to get the green bar saying that your page is valid HTML. If you see any yellow warnings about being *tentatively* valid, this is okay. Red errors are not okay.

Part 5: Deploy Your Web Site using Amazon Web Services

The following are the instructions on how to create, view, deploy, update your web applications with AWS Elastic Beanstalk.

Step 1: Create a secret key pair (optional)

At the EC2 dashboard under the management console, create a new secret-key pair, and download the private key to a location on your computer.

Step 2: Create and Deploy a New Application

At the Elastic Beanstalk dashboard, click the “**Create New Application**” link, and then follow the step by step instructions to create a new application and environment.

The following link has the similar instructions:

<http://docs.amazonwebservices.com/elasticbeanstalk/latest/dg/GettingStarted.Walkthrough.html>

Important Tips:

- Please make the following choices:
 - Environment tier: **Web Server**
 - Predefined configuration: **PHP**
 - Environment type: **single instance**
 - Environment URL: **firstName-LastName-cis435P1**, e.g. john-smith-cis435P1
 - Instance type: **t2.micro**
 - Create this environment inside a VPC, and pick a subnet for EC2 (e.g. 172.30.0.0/24)

- (optional) Specify the existing key pair to the name of the key pair you created at Step 2. This will allow you to remotely connect to your instance via ssh.
- Remember to only launch **t2.micro** instances. All other instance types cost more money!
- Just create one application. If you make any changes, you can deploy a new version in your current application.
- Your main page must be named as “index.html”
- Put all your html, css, and image files under the same folder, and zip them up. Please don’t include the parent folder in the zip file. In other words, the “index.html” file should be in the root directory of your zip file. Otherwise, the system will not be able to locate your files. Please check the link for detailed instruction:
<http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.deployment.source.html>
- Terminate the environment after each use (unless I ask you leave it on for grading). It will terminate the underlying EC2 instances.

Step 3: SSH into your machine (Optional)

For details on how to SSH into the machine, go here (<http://docs.amazonwebservices.com/AWSEC2/latest/GettingStartedGuide>) and navigate to the “Connect to Linux/UNIX instance” page.

- Log on as “ec2-user”

Grading

The grading criteria for this assignment will include: the extent to which your pages contain all the things described in the previous section, compliance to standards, the lack of broken links, the conciseness of the HTML and CSS files, and the lack of visually disturbing artifacts that make it very unpleasant to look at the pages. Your program should work in both Internet Explorer and Chrome.

What to turn in:

1. Upload all your files, including source codes and image files as **a single ZIP file** to the canvas under the “P1” folder.
2. Must write down the URL of your web site in the comment section, when submitting.