

CSCI 4131 –Spring 2024
Internet Programming Assignment 1
Due Date: Saturday 1/27 at 11:59 pm
Late Submission Deadline: *Tuesday 1/30 at 11:59 pm*

1 Description

The objective of this assignment is to introduce you to the Hypertext Markup Language (HTML – specifically, HTML-5) document structure and a very limited amount of web page styling using Cascading Style Sheets (CSS).

Specifically, in this assignment, you will create the first two HTML pages that will eventually be part of the Website you will build for this course (You will be given assignments to update and add functionality to the pages as we progress through the semester). You will also use a simple Web server that responds to requests via a URL in a browser for the HTML pages that you create (We will give you the server, and you will have to modify it just a bit)

The first two pages of your website will be your weekly schedule of key events and an About Me page. Your weekly schedule page should contain a table with information about key events that you attend during the week - though content is not the primary focus here – we're mostly interested in you getting your web development environment up and running. After you are done with that, you will create a second page that contains a picture of yourself, information about yourself that you feel comfortable sharing, and an embedded widget (specifically, a YouTube Playlist) of your choice. Next, you will link the two pages together to create a two-page "Website". You should use HTML-5 to develop your Website and avoid the use of deprecated elements. This assignment specification has 6 pages.

2 Requirements

Your weekly schedule should be displayed on the first Web (that is., HTML-5) page you create. Your schedule page should consist of an HTML table containing with information about your class schedule this semester and regularly scheduled events you participate in each week during the semester. Your weekly schedule table should contain at least seven (7) rows – at least one for each day of the week. You can include events that recur on different days, but your schedule table should contain unique events as well.

Each row in your schedule table should contain:

- The day of the week the event occurs.
- The name of the event.
- The time start and anticipated end time for the event.
- The location of the event (address or link to a meeting).
- A phone number associated with the event location (if available).
- A URL with information about the event

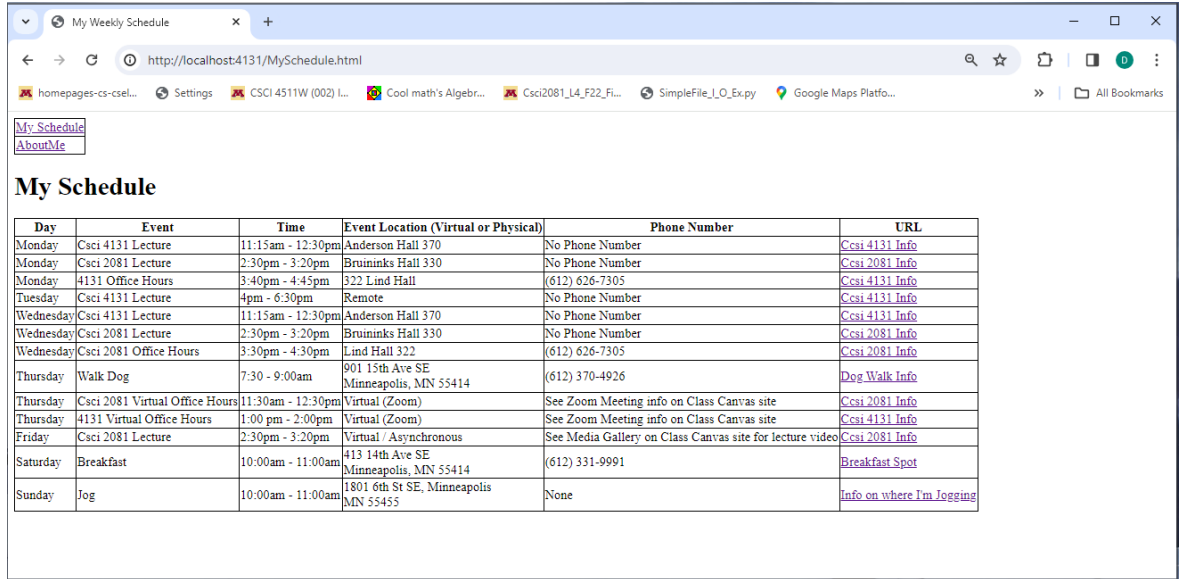
Use embedded CSS to display borders around the navigation links and HTML table containing your events.

The second Web page you should create is the "About me" page, on which you should embed

Picture of yourself accompanied by information about yourself you feel comfortable sharing, and a YouTube Playlist in an ordered list. The two pages should be linked via a links embedded in a table or paragraph elements which are contained in an HTML div or **nav** element at the top of the page. Below are examples of what we are looking for on your Schedule of events and About me pages (at a minimum - you are free to add additional information and more palatable styling).

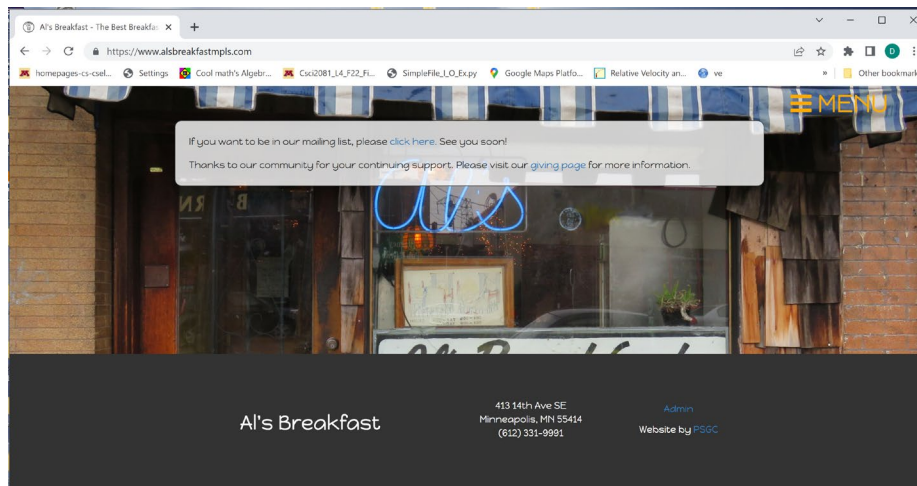
The following pages contain detailed examples and instructions on the required functionality for this assignment

Figure 1: An example My Weekly Schedule page (You are free to add more styling). **Note:** When the About Me link is selected, the browser should display a page similar to the About Me page pictured in Figure 3 below.



Day	Event	Time	Event Location (Virtual or Physical)	Phone Number	URL
Monday	Csci 4131 Lecture	11:15am - 12:30pm	Anderson Hall 370	No Phone Number	Csci 4131 Info
Monday	Csci 2081 Lecture	2:30pm - 3:20pm	Bruininks Hall 330	No Phone Number	Csci 2081 Info
Monday	4131 Office Hours	3:40pm - 4:45pm	322 Lind Hall	(612) 626-7305	Csci 4131 Info
Tuesday	Csci 4131 Lecture	4pm - 6:30pm	Remote	No Phone Number	Csci 4131 Info
Wednesday	Csci 4131 Lecture	11:15am - 12:30pm	Anderson Hall 370	No Phone Number	Csci 4131 Info
Wednesday	Csci 2081 Lecture	2:30pm - 3:20pm	Bruininks Hall 330	No Phone Number	Csci 2081 Info
Wednesday	Csci 2081 Office Hours	3:30pm - 4:30pm	Lind Hall 322	(612) 626-7305	Csci 2081 Info
Thursday	Walk Dog	7:30 - 9:00am	901 15th Ave SE Minneapolis, MN 55414	(612) 370-4926	Dog Walk Info
Thursday	Csci 2081 Virtual Office Hours	11:30am - 12:30pm	Virtual (Zoom)	See Zoom Meeting info on Class Canvas site	Csci 2081 Info
Thursday	4131 Virtual Office Hours	1:00 pm - 2:00pm	Virtual (Zoom)	See Zoom Meeting info on Class Canvas site	Csci 4131 Info
Friday	Csci 2081 Lecture	2:30pm - 3:20pm	Virtual / Asynchronous	See Media Gallery on Class Canvas site for lecture video	Csci 2081 Info
Saturday	Breakfast	10:00am - 11:00am	413 14th Ave SE Minneapolis, MN 55414	(612) 331-9991	Breakfast Spot
Sunday	Jog	10:00am - 11:00am	1801 6th St SE, Minneapolis MN 55455	None	Info on where I'm Jogging

Figure 2: Web Page displayed when the hyperlink to the Breakfast Spot is selected (that is, clicked on) from the Saturday event in the My Weekly Schedule table pictured in Figure 1 above.



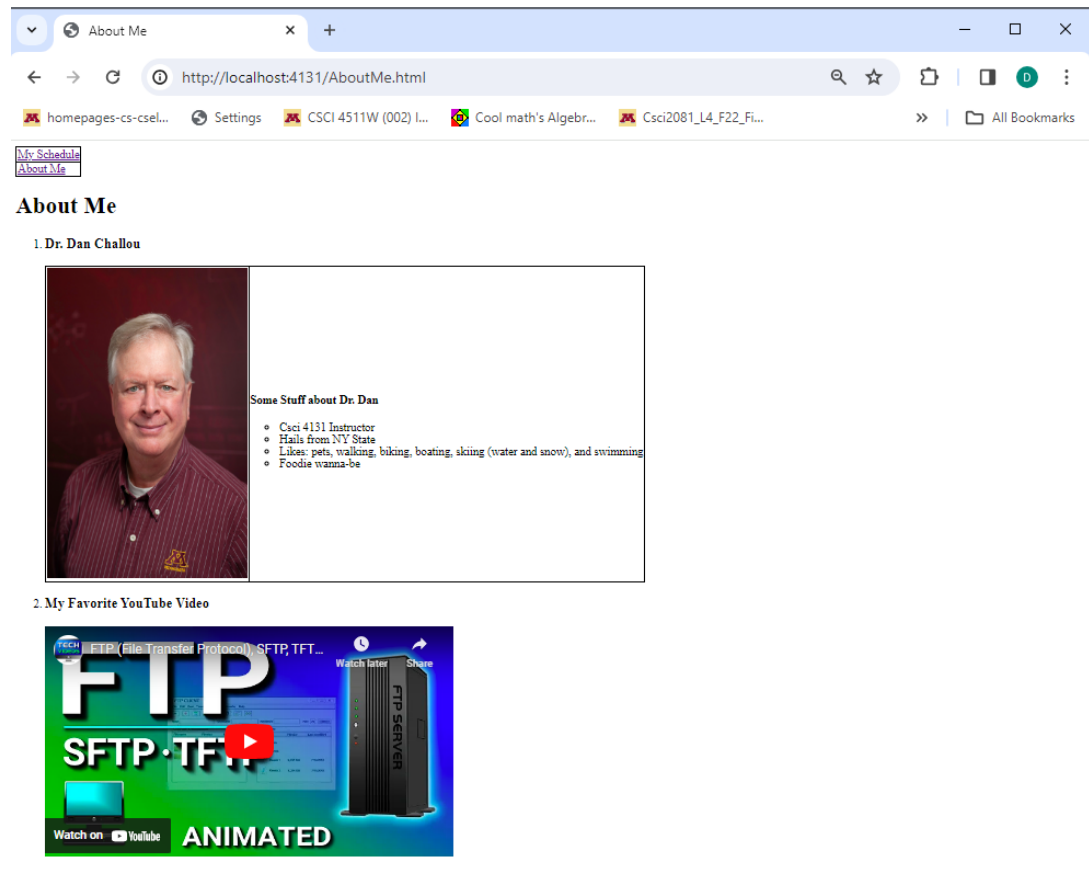


Figure 3: An example About Me page containing an img element with a src reference to a picture somewhere on the web that says something about you. You should use a full URL for the src (source) in your image element – for example:

"https://cse.umn.edu/sites/cse.umn.edu/files/styles/folwell_full/public/Challou_Dan_1.jpg?itok=6tBEqjiB"

The second item on the page is a YouTube Playlist. (You should find and embed playlist of your own choosing). Note, when the My Schedule link is selected, the browser should display to the My Schedule page pictured in Figure 1 above.

To incorporate your YouTube Playlist, first find a YouTube playlist you would like to embed. Then follow the instructions at the following link on how to obtain the HTML necessary to embed the playlist:

<https://support.google.com/youtube/answer/171780?hl=en>

Next, copy the html provided and paste it into your About Me page.

You should embed the HTML code for your Picture and YouTube playlist within their own appropriate HTML block element such as a table row, div, section, or <h1> - <h6> (see https://www.w3schools.com/html/html_blocks.asp) on your Widgets page. You should use a table to display a picture of something related to information about and a list of information about yourself as shown in Figure 3.

3 Using and updating the server

Along with this writeup, we have given you 2 files. One file, named: **server.py** contains the code for a simple Python server. The second file, named: 404.html, is an html page with a file not found error (404) used by the server (see the file: **server.py**)

You are required to test your pages using the server. However, to do so, you will have to add some code to the function named: **getFile** in the file **server.py** to display your AboutMe.html page

See the comments in the function **getFile** (in the file server.py) for details on the code you have to add so the file **server.py** can return the **AboutMe.html** page when it is running

To test your web (that is, html) pages:

- 1) Ensure all html pages: **MySchedule.html**, **AboutMe.html**, and **404.html** are in the same folder/directory on your computer (see naming conventions in section 5 below)
- 2) Put the file **server.py** in the same directory as your html pages. Make sure you have added the code specified in the comments in the **getFile** method (which is in the file **server.py**)
- 3) Edit the file **server.py** using Python's Integrated Development and Learning Environment (IDLE)
- 4) Select the Run Module item (F5) – this will run the Python server
- 5) Now you should be able to use your browser to view your MySchedule.html and AboutMe.html pages.
 - a. Enter: <http://localhost:4131/AboutMe.html> in your browser's URL bar (that is, address bar), and your browser should display your AboutMe.html page (which should be your version of the page displayed in Figure 3)
 - b. Enter: <http://localhost:4131/MySchedule.html> in your browser's URL bar (that is, address bar), and your browser should display your AboutMe.html page (which should be your version of the page displayed in Figure 1)
 - c. Enter: <http://localhost:4131/JUNK> and your browser should display a 404 error: File Not Found.

4 Evaluation

Your submission will be graded on the following items (out of 75 possible points + 10 bonus points):

- Weekly Schedule Page contains table with weekly schedule containing at least 7 events (one for each day of the week) is present and formed using a table element `<table>`. At least 3 of the events must have Physical Locations. **5 points**
- At least two events in the table should have links to a URL that displays information about the event when selected. **5 points**
- Navigation links are present at the top of each page, function correctly, and are contained in a `<nav>` or `<div>` element tag. **5 points**
- For each event in the table, the contact's cells contain the day of the event, the event name, event start and end time, the location of the event, phone number (if available) and a link to information about the event. **5 points**
- HTML code is readable and indented. **5 points**
- Meta information is supplied specifying UTF-8. **5 points**
- HTML for each page passes w3c validator (<https://validator.w3.org/>), **NOTE: frameborder errors on the iframe tag used for embedding the YouTube video are permitted.** All other errors will result in loss of points. Warnings are accepted. **5 points**
- CSS for each page passes w3C validator (<https://jigsaw.w3.org/css-validator/>) **without errors. Warnings are permitted. 5 points**
- **Bonus points – Eliminate the errors caused by the frameborder attribute in the iframe tag but you must find a new attribute to replace the frameborder attribute in the iframe tag. The new attribute must keep the border hidden as in the example – and your About Me page must still embed the YouTube video) 10 points**
- The About Me page should have a link to a picture that tells us something about you and information about you as the first item in an ordered list. Note, the link to the picture and information should be displayed in a manner similar to what is shown in Figure 3. **10 points**
- The About Me page should have a working YouTube Playlist item as the second item in an ordered list. **5 points**
- The file server.py should correctly display the file: MySchedule.html when the URL: <http://localhost:4131/MySchedule.html> is entered in a browser's URL bar (note your server has to be running on your machine as specified in the testing instructions from section 3 above.) **5 points**
- The file server.py should correctly display the file: AboutMe.html when the URL: <http://localhost:4131/AboutMe.html> is entered in a browser's URL bar (note your server has to be running on your machine as specified in the testing instructions from section 3 above.) **10 points**
- The file server.py should correctly display the message: File Not Found from the file: 404.html when the URL: <http://localhost4131/JUNK> is entered in a browser's URL bar (note your server has to be running on your machine as specified in the testing instructions from section 3 above.) **5 points**

5 Submitting your assignment via Canvas

- Your submission should be packaged in a zip file. When opened, it must create a directory titled '<UMN x.500 ID>' **containing all your files** – including your external CSS style file(s) if you use them. **The name of the folder or directory containing your files should be your x.500 id.**

For example, Professor Challou would submit his assignment by tarring or zipping up a directory named **chal0006**. You should name your HTML files **mySchedule.html** and **AboutMe.html**.

Submit your zip file to the course Canvas site via the Homework 1 Submission Link.

6 Resources to review and reference for this assignment:

HTML/Forms – Chapters 2 and 3 in your zyBook

CSS – Chapters 4 and 5 in your ayBook

CSS – embedding CSS styling in your Web Page (Internal Style Sheet)

https://www.w3schools.com/css/css_howto.asp

Adding a border to a table using CSS:

https://www.w3schools.com/css/css_table.asp

Information on various HTML elements (div, nav, lists, table, header elements (i.e., h1, h2, ..., h5)):

Search www.w3schools.com/html

How to embed an image on your Webpage:

https://www.w3schools.com/html/html_images.asp

How to embed a YouTube video or playlist your Webpage:

<https://support.google.com/youtube/answer/171780?hl=en>