# NM2207

Week 2

# Challenges

Overview of what we’ll do today:

* Create a homepage with links to your challenges and assignments
* Upload our homepage and assignments to the server
* Practice making tables and then upload to the server

# Part I

OK, let’s create a home page for you.

# Create a Homepage

Step 1. Lets explore index.html

1. Open index.html in the browser.
   * Right click->Open in browser
   * Or in the address box in your browser, type file:// followed by the whole directory path to the file
   * Or, in the File Explorer (where you view the contents of Session01.class, double click the index.html file. If your default browser is set to Google Chrome, then it will open in Google Chrome. If it is not, then search the internet for how to set your default browser to Google Chrome in Windows or Mac.
   * Or, you can also open Google Chrome and then drag the file icon for index.html from your File Explorer into an open Chrome browser window, to open it.
2. Open index.html in the VSCode editor
   * Start VSCode (probably easiest to double-click the icon)
   * Open the Session02.class folder in VSCode (drag the folder into VSCode, or use File->Open Folder)
   * Show the contents of the file index.html in the VSCode editor

Text

Description automatically generated

1. Look up each of the “tags” at <https://www.w3schools.com/TAGS/default.ASP> by using the search bar under “HTML Tags ordered alphabetically.”

What do they mean? The first two are provided as some background information.

|  |  |
| --- | --- |
| **Tag** | **Meaning** |
| **HTML** | **Hyper Text Markup Language, the language used to write webpages.** |
| **HTML document** | **A document written in HTML, like your index.html file** |
| <html> | Defines the root of an HTML document |
| <head> | Contains metadata/information for the document |
| <title> | Defines a title for the document |
| <body> | Defines the document's body |
| <h2> | Defines HTML headings |
| <p> | Defines a paragraph |

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Step 2. In your browser with your web page open, right click -> View Page Source

**Part II Folder organization**

Step 3. Now you should have a directory (“folder”), probably called ‘NM2207’ that looks something like this (the slashes at the end of a name indicate directory rather than file):

NM2207/

Session01.assignment/

HyperlinkedStorytelling/

Session01.class/

index.html

Session01\_Challenges.docx

checklist.png

Session02.class/

Session02\_Challenges.docx

Session02.codealong/

AdvancedStyling/ HelloHTML/ HelloUniverse/ Styling/

It doesn’t have to be exactly the same, but it should be well-organized. If it isn’t, make it so (it will save you time later!)

Step 4. Lets create a directory (folder) called ‘web’ to keep all our codealongs, challenges and assignments in (including this one!). Create the ‘web’ folder, and move all your subfolders folders into it. Your new directory structure should look something like this:

NM2207/

web/

Session01.assignment/

HyperlinkedStorytelling/

Session01.class/

index.html

Session01\_Challenges.docx

checklist.png

Session02.class/

Session02\_Challenges.docx

Session02.codealong/

AdvancedStyling/

HelloHTML/

HelloUniverse/

Styling/

Step 5. Now we will create a file named index.html file that you will use as your “homepage”. This file will go **in the ‘web’ folder you just created**. Last week, you used an index.html to create your own homepage.

Today,download hpagestarter.zip from the “Possible rip sources” on our Class Resources page: https://nm2207.org/creativeweb/). It creates a folder called hpagestarter. Move or copy all the files in the hpagestarter to **your ‘web’ folder of NM2207**.

Your homepage will be the file named index.html and it (and any folders for

styling) should go in to your ‘**web**’ directory you just created (no subfolder). Now your folders look like this (changes are only in the web directory):

NM2207/

web/

appscripts/

css/

index.html

Session01.assignment/

HyperlinkedStorytelling/

Session01.class/

index.html

Session01\_Challenges.docx

checklist.png

Session02.class/

Session02\_Challenges.docx

Session02.codealong/

AdvancedStyling/

HelloHTML/

HelloUniverse/

Styling/

Next, edit your homepage (the new index.html file) so that it contains:

* 1. A welcoming message
  2. A bit of text saying what this is,
  3. A list of links to the classwork challenges (ie link to the index.html file within Session01.class folder and Session 02.class folder)
  4. A list of links to the assignments (ie link to the index.html file within the Session01.assignment folder).
  5. Each list has just one item right now.
  6. Leave them in the directories where they currently are, and use **relative paths** to the index.html files within them.

Check your work by opening your homepage, clicking on the links to your homework pages which should open in the browser. Use the back button to go back to your home page.

Click on the link to your homework. Does it work? Important: Why or why not? Discuss with your partners to make sure you understand what is happening.

# Part III Upload to FileZilla

Now we need some program to help us upload our web pages to this machine so that they can be served. You did this last time…

Step 6. Open FileZilla and enter the hostname (nm2207.org) your userid, password in the fields at the top of the window. The “port” field should be 22. You should have “saved” this connection last time, if not, feel free to save it now.

The window on the right will open in your home directory on nm2207.org. Navigate to your ‘web’ folder. ***Anything you put in this folder will be visible on the web.***

***Note:*** *never delete or replace the web folder itself – only do that for files and folder inside web/*

In your remote web folder (ie your web folder on nm2207.org), you can rename the previous index.html file (the one you created last week) to index\_Session01.html

Step 7. Now use FileZilla to upload the folders that have your homework in them from your **local** machine to your home directory on nm2207.org. To keep the folder structure the same on nm2207.org as on your local machine (so that the links work properly) drag the folders you need from the same directory where your home page is located (all the sub folders will be transferred properly as well).

Step 8. Now, open a browser and navigate it to: https://nm2207.org/2021I/[your user id]/web/

* It should show you a new homepage ie the one you just created, with the links to your classwork and assignments. Now a few kinds of errors are possible:
* 403 error: no index file exists in the web folder! Uh oh. Where did you put your index.html file?
* Do you see a different kind of error? Talk to your partner and explore to find out what it might mean.
* In your homepage, click on the links to your classwork and assignment. Do they work? Important: Why or why not? Discuss with your partners to make sure you understand what is happening.
* *If you have used absolute paths (e.g. paths starting with “C:”) then you need to use relative paths instead*
* *If you have used relative paths but something is still breaking, then your files are not where you expect them to be. Before reaching out to your tutor, please check each path manually. Your tutor will have to do the same.*

Try to fill up all the cells based on your experience.

**Table 1: The Table you should fill up and add to your index.html in the next part**

|  |  |  |
| --- | --- | --- |
|  | Absolute paths | Relative paths |
| What are some of the reasons why they break when I am working in my local machine? | The file path was wrong | I was in the wrong directory |
| What are some of the reasons why they break when I copy my files over to nm2207.org using FileZilla? | I accidentally overwrote the index.html file in Session01.class folder | I did not update the connection on filezilla, I accidentally overwrote the index.html file in Session01.class folder |
| If I faced these errors, how did I resolve them? | Copy back the original index.html into the Session01.class folder | Resolved once I reset connection with filezilla and copy back the original index.html into the Session01.class folder |

Step 9. nm2207.org is running a “web server” program that will serve you any web pages it has stored and for which you give it the proper address. Try entering this in your browser address field:

<https://nm2207.org/2223S2/kokil/web/index.html>

**Actually, index.html is the “default” page the web server will give you if the path is correct –** try it by typing the following in to your browser address bar:

<https://nm2207.org/2223S2/kokil/web/>

You should see the same thing as before since index.html is served by default.

Step 10. Navigate your browser to your neighbor’s home page, too! Do all their links work for you?

# Part IV Practice more HTML elements

Now we will make a table in HTML.

Step 11: Open table.html in the tableTests folder, in your VSCode Editor and Chrome browser.

To understand what each of the new tags in table.html mean, open <https://www.w3schools.com/TAGS/default.ASP> and use the search bar under “HTML Tags ordered alphabetically.”

|  |  |
| --- | --- |
| Element or attribute | What did it do |
| <tr> | Defines a row in a table |
| <th> | Defines a header cell in a table |
| <td> | Defines a cell in a table |

Step 12: Experiment by changing the text within ONE of the <td> </td> tags in table.html

Step 13: Try some more styling by editing the tstyle.css file. Use code snippets from <https://www.w3schools.com/html/html_tables.asp>

* Change the border color
* Let the borders collapse into one border
* Add cell padding
* Left-align headings
* Add border spacing
* Add a caption

Step 14: Now get more adventurous and **edit table.html to be Table 1**.

Step 15: Now, explore the index.html and tooplate-chilling-café.css. Do you see anything unfamiliar? Document it here:

|  |  |  |
| --- | --- | --- |
| Filename | Unfamiliar thing | Search the internet to find out what it means |
| tooplate-chilling-café.css | @media | “Using media queries are a popular technique for delivering a tailored style sheet (responsive web design) to desktops, laptops, tablets, and mobile phones.”  <https://www.w3schools.com/cssref/css3_pr_mediaquery.asp> |
| Index.html | <section> | Defines a section in a document  <https://www.w3schools.com/tags/tag_section.asp> |
| Index.html | <meta> | Defines metadata of an HTML document which will not be displayed on the webpage  <https://www.w3schools.com/tags/tag_meta.asp> |

Step 16: Change the image in index.html. Keep in mind:

* Where to edit the text to change the path. Interestingly, in this template the css file and not the index.html has the path to the image.
* Where you are storing the image. Please store it in the resources folder in tableTests!
* How to use relative paths to refer to it.

Step 17: Now, try edit Table 1 into the table within index.html! Create a backup of index.html if you are worried that you might break something.

Step 18: Please upload to the server, and update paths on the homepage as before, when you are done.

# Part V Work on Session02.assignment, due Week 3