



CSCI 202 - Dynamic Web Pages

Winter 2022

Laboratory 1

Objectives

1. Set up **studentweb** folder and subfolders
2. Create the Home page: index.html
3. Create the Rooms page: rooms.html
4. Modify the Home page with the external style sheet.
5. Modify the Rooms page to be consistent with the Home page.

You are welcome to use your book as a resource as well as online lectures. Feel free to email your TA or instructor if you have questions about the lab.

READ ALL THE INSTRUCTIONS CAREFULLY.

Task 2: Set up a **studentweb** folder, a **CS202** subfolder and a security folder. All your published web pages **MUST** be contained in your **myweb** folder.

Steps:

- a.** Open Visual Studio Code and install Remote Development extension. Make sure you have all other extensions installed. (Live Server, vscode-icons, Auto Rename Tag, CSS Formatter etc.)
- b.** Create a new folder and name it **CS202**.
 - o Using the menu bar at the top of the window, select File
 - o Select **New**
 - o Select **Folder**

- o Give your new folder the name **CS202** (make sure there are no spaces and the name is all upper case)

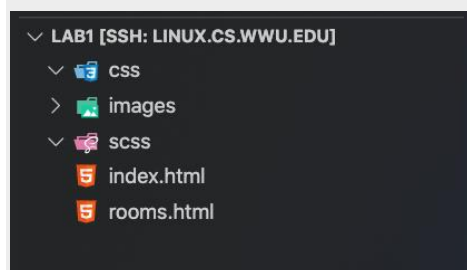
c. Create a new subfolder in CS202.

- o For added security, create a subfolder in your CS202 folder using the instructions for creating a new folder. You can choose the name of this subfolder, but it should be something unique and easy to remember. For example, your pet's name or a character in your favorite TV show.
 - Say your friend's name is MonaLisa, then the path to your secret folder is **CS202/MonaLisa**
 - Choosing a unique folder name will make it difficult for anyone to piece together your folder path, thus making it harder for them to access your webpages without your knowledge.
 - All of your work for this course must be saved in the folders you've set up, but you may want to save a backup of your work by emailing files to yourself or copying your files to a thumb drive.

d. Create a new subfolder in secret folder.

- o Create a **Lab1** folder inside your secret folder. We'll save the web page in the folder. (make sure exactly like it is typed in these instructions)

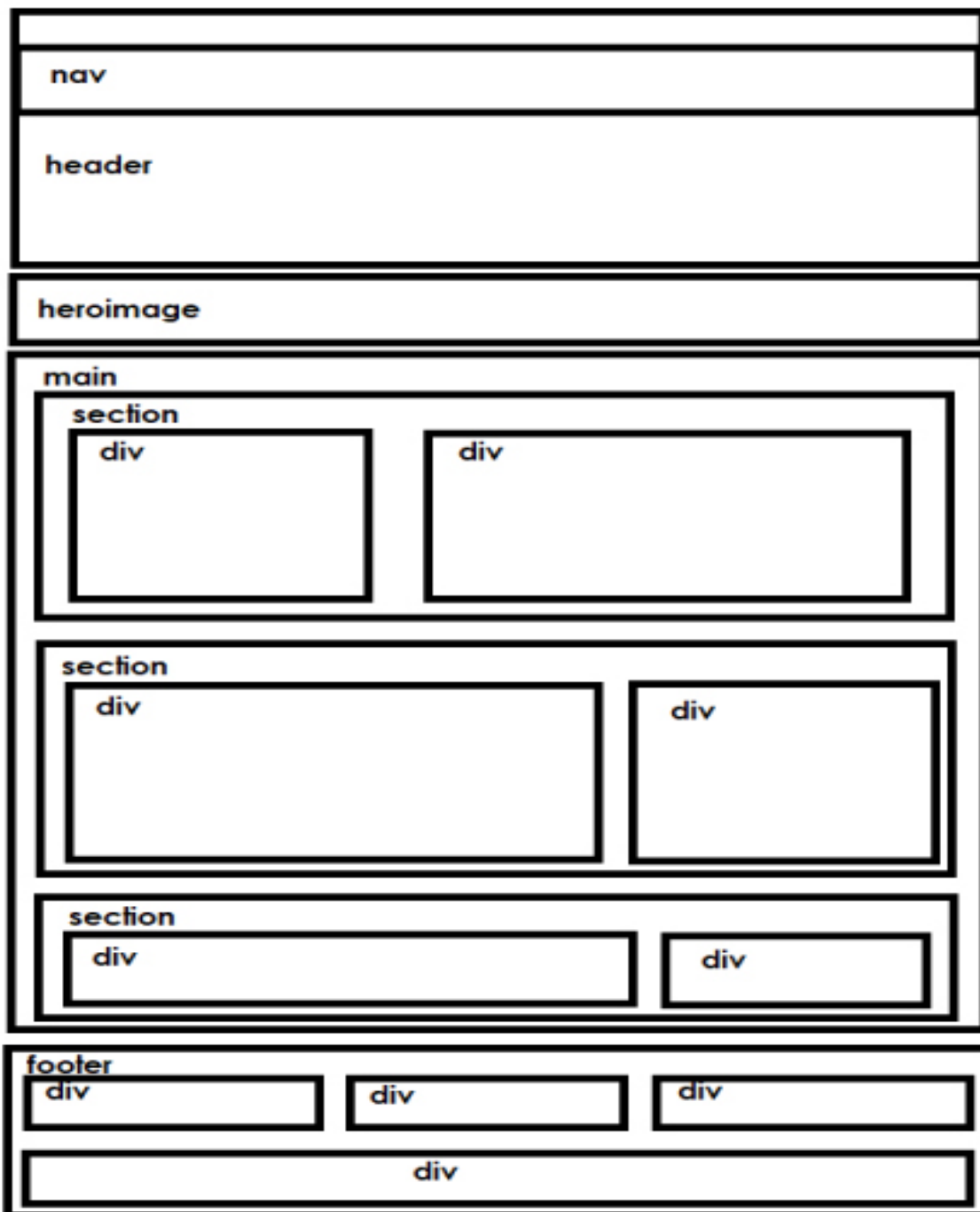
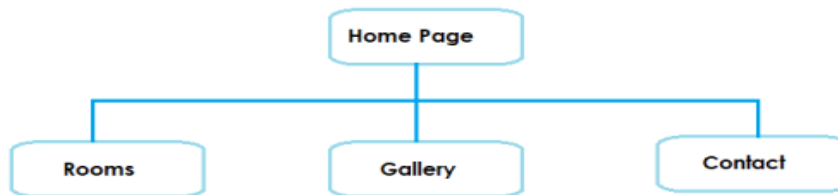
o **CS202/Secretfolder/Lab1**



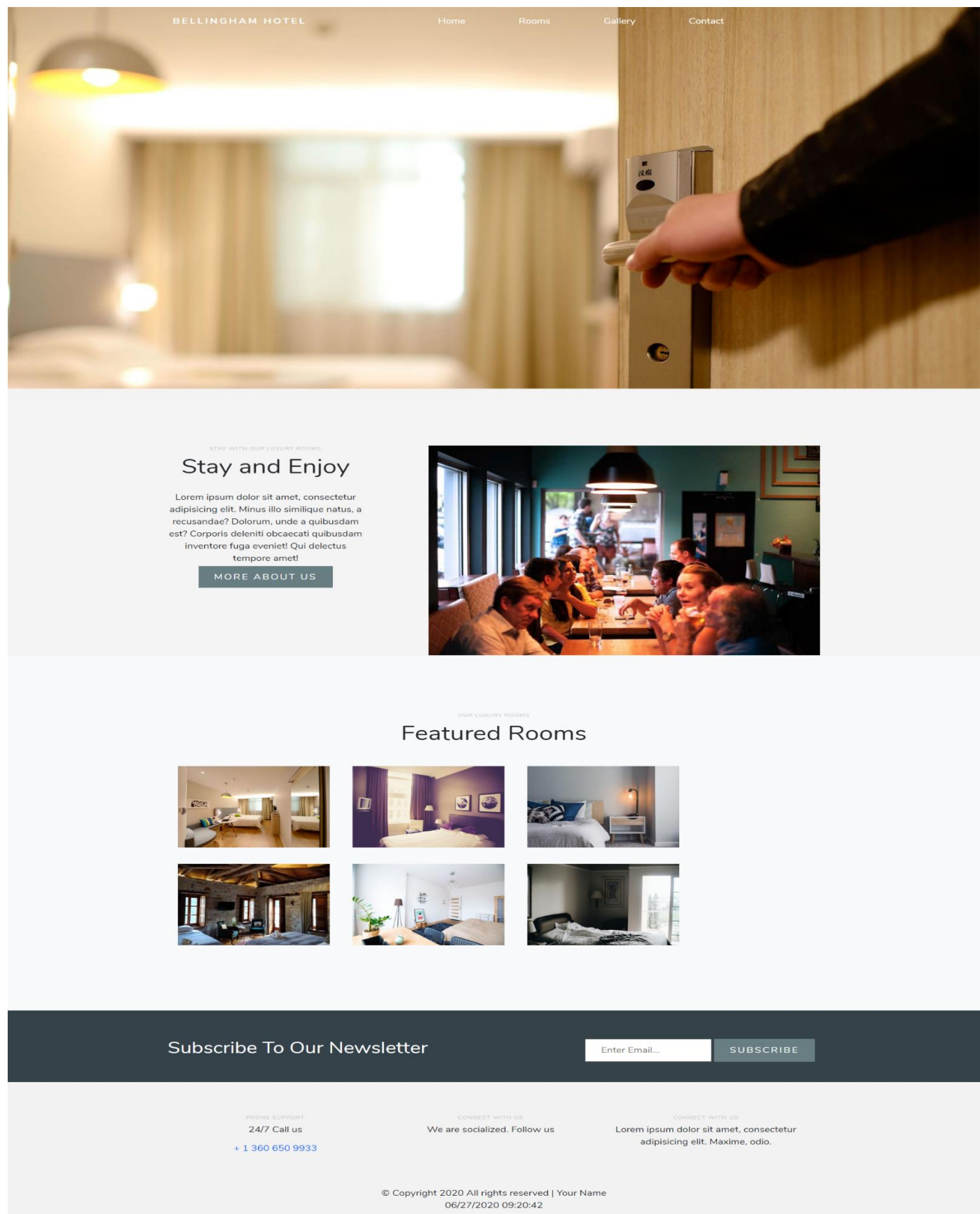
Task 2: Use the website case study to create your first web page.

- a. Select File and then New to generate a blank template.
- b. To save your file in the appropriate folder select File then Save As

- Navigate to the **Lab1** folder you created earlier by selecting your CS202 subfolder, then the secret folder, then your **Lab1** folder
- Save the file as index.html



Task 2: THE HOME PAGE. Create the Home page shown in the figure below.



Launch Visual Studio Code, and create a web page with the following specifications:

1. **Starter template.** Copy the Starter bootstrap 5 template from

<https://v5.getbootstrap.com/docs/5.0/getting-started/introduction/> and paste in your Visual Studio Code.

2. **Web Page Title.** Bellingham Hotel.

3. **Wireframe Header.** Code the `header` element. Code a div within the header that has a class named `container`. Code a div with class named `logo` the text `Bellingham Hotel`. Code the `nav` element as the second child of the `container` div.

(e.g. `Home`)

4. **Wireframe Banner.** Code the banner with a div element with a class named `heroimage`. Below this, code a div with class named `clearfix`.

5. **Wireframe Main Content.** Code the main page within a `main` element. Configure section element with a class named `main-padding`. Inside this, code in a div with the `container` class.

6. **Sidelft div.** Inside this `container` div, code a div with a class named `sideleft`, and inside this code an `h4` with class named `sub-heading` an `h2` with class named `heading`.

- i. Code the following text within the `h4` element:

STAY WITH OUR LUXURY ROOMS

- ii. Code the following text within the `h2` element:

Stay and Enjoy

- iii. Code the following text within p element following the aforementioned `h2`:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Minus illo similique natus, a recusandae? Dolorum, unde a quibusdam est? Corporis deleniti obcaecati quibusdam inventore fuga eveniet! Qui delectus tempore amet!

- iv. Code another p element, and within it an anchor element with a class named `button`. Code the following text within the anchor: `More about us`

- a. **Sideright div.** Place a div with class named `sideright` after `sideleft`

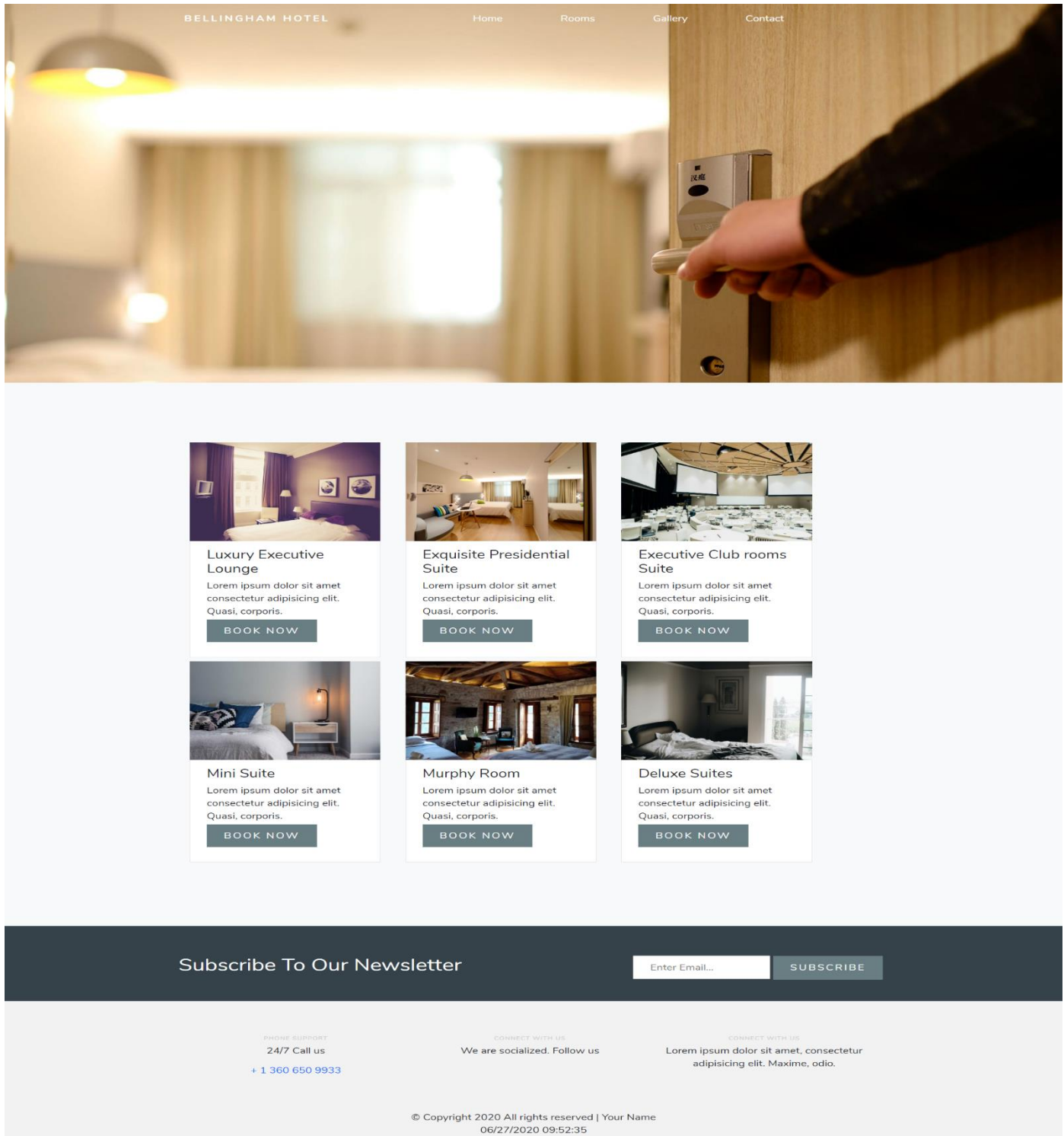
- i. Configure an image (`img_7.jpg`) within the div `sideright` with an attribute width of 100% and an alt text "Read More Image"

- ii. After the closing section tag, code a div with class named `clearfix`.
- c. **Section tag.** Code a section element with two class names `main-padding` and `bg-color`. Code a div within it with a class named `container`. Configure two divs within the `container` with class names `feature` and `feature-image`, respectively.
 - i. Within the div with the class named `feature`, configure an `h4` element with class named `sub-heading` and `h2` element with class named `heading`.
Code the following text within the h4:
`OUR LUXURY ROOMS`
Code the following text within the h2:
`FEATURED ROOMS`
 - ii. Configure six images within the div with class named `feature-image`.
`img_1.jpg, img_3.jpg, img_11.jpg, img_12.jpg, img_16.jpg, img_14.jpg`.
 - iii. Code a div with class named `clearfix`, after the `main-padding` section.
- d. **Section tag.** Code a section element a class named `newsletter`. Code a div inside with class named `container`. Code an `h1` element and a form within the `container`
 - i. Code the following text within the `h1` element: `Subscribe to Our Newsletter`
 - ii. Code the following code for the form:

```
<form>
  <input type="email" placeholder="Enter Email...">
  <button type="submit" class="button">Subscribe</button>
</form>
```

7. **Wireframe footer.** Code a `footer` element with a class named `main-footer`. Code a div within the footer with a class named `container`. Inside this, code **three** divs with class names `footer`.
- i. **First div with class name `footer`:** Code within the div an `h4` element with class name `sub-heading`. Configure within a `p` tag **24/7 Call us** and configure an `anchor` tag with text **+ 1 360 650 9933**.
 - ii. **Second div with class name `footer`.** Code within the div an `h4` element with class name `sub-heading`. Configure within the `h4` element **CONNECT WITH US** and below the `h4` element code a `p` element with text **We are socialized. Follow us.**

- iii. Third div with class name `footer`. Code within the div an `h4` element with class name `sub-heading`. Configure within the `h4` element **CONNECT WITH US** and below that a `p` element with text *Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maxime, odio.*
- iv. **Copyright.** Code a div with class name `copyright` outside the container with `<i class="far fa-copyright"></i> Copyright 2022 All rights reserved | Your Name`



Task 3: THE ROOMS PAGE. Create the Rooms page shown above. A technique that improves productivity is to create a new page based on existing pages so that you can benefit from your previous work. Your new Rooms page will use the index.html page as a starting point. Open the index.html page for the website in Visual Studio Code Editor. **Select File > Save As, and save the file** with the new name of rooms.html in the Lab1 folder. Now you are read to edit the page.

- a. **Web Page Title.** Modify the page title. Change the text contained between the <title> and </title> tags to the following:

Rooms | Bellingham Hotel

- b. Wireframe **Main Content.**

i. Delete the Home page main content.

ii. **Section element.** Code a `section` element within the `main` tag with two class names `main-padding` and `bg-color`. Inside this, code a div with class name `container`.

iii. **Rooms div.** inside the previous div, code a div with a class named `rooms`. Code six (6) divs with class names `rooms-pic-1`.

iv. **Rooms-pic-1 div.** Code within each `rooms-pic-1` div a `<figure>` tag. Configure within the `<figure>` tag an `` tag with class name `img`. After each `<figure>` tag configure a div with class `rooms-body`.

v. **Rooms-body div.** Code within each `rooms-body` an `h3` element with class name `rooms-heading`, and a `<p>` tag with lorem ipsum text. Configure another `<p>` tag with an anchor tag with a class named `button` and text within the anchor `Book Now`

vi. All 6 `rooms-pic-1` should be configured the same with `img`, `h3`, `p` and `a` tags

Task 4: THE EXTERNAL STYLE SHEET. You will create an external css named `main.css`.

1. Create a `css` folder in Lab1 and inside create a file named **`main.css`**.
2. Click on **Go Live** at the bottom of the VS Code status bar.



3. Add a `<link>` tag head section of your html:

```
<link rel="stylesheet" href="css/main.css">
```

4. Code the following into your **`main.css`**

- a. Import the Google Web Fonts:

```
@import url("https://fonts.googleapis.com/css?family=Nunito:300,400,700");
```

- b. Import the bootstrap 5 cdn:

```
@import url("https://stackpath.bootstrapcdn.com/bootstrap/5.0.0-alpha1/css/bootstrap.min.css");
```

- c. Import the fontawesome 5 cdn:

```
@import url("https://use.fontawesome.com/releases/v5.13.1/css/all.css");
```

- d. Configure the universal selector with a `box-sizing: border-box` style declaration.
- e. Global style for the document (use the `body` element selector) with background color `#F4F4F4`; margin `0px`; padding `0px`; and font `20px/1.5 'Nunito', sans-serif`;
- f. Styles for the `header` element selector that configure position `absolute`; top `0px`; left `0px`; width `100%` and z-index `5`;
- g. Configure the `header .logo` parent child selector with `text-transform uppercase`; letter-spacing `.2em`; 700 font weight and white text;
- h. Configure the left column for `header>div .logo`. Add new style declarations to configure an area that floats to the left and padding `1em 3.5em 1em 0.5em`;
- i. Configure a transparent background for `header nav` selector with `!important` and `text-align center`.
- j. Modify the `nav a` element selector. Add style declarations for `1em 2.5em` padding, `display inline block`, and white text color (`#FFFFFF`).

- k. Modify the `a` element selector. Add style declarations for `transition .3s all ease`, `-webkit-transition`, `-o-transition` and `text-decoration none`.
- l. Code a style rule to prevent the hyperlinks in the nav area from displaying the default underline upon hovering with `text-decoration: none`. (E.g. `nav a`)
- m. Configure a class named `heroimage`. Set the background `home.jpg`. Configure `cover` `background-size` and height of `100vh`.
- n. Modify the class selector `main-padding` with a `padding 7em 0em`.
- o. Configure the left column area. Add a style rule for the `sideleft` class selector to configure an area with a `30% width`, `float left` and `centered text`.
- p. Modify the class `sub-heading` with `transformed uppercase`, `font size to 12px`, `color gray (#CCCCCC)` and `letter space .1em`.
- q. Modify the class `heading` with `font size 50px` and `margin-bottom 30px`.
- r. Code the following CSS to the `button` class

```
{  
  background-color: #697e83;  
  transition: .3s all ease;  
  padding: 12px 30px;  
  margin-top: 1em;  
  text-transform: uppercase;  
  letter-spacing: .15em;  
  color: #fff;  
  border: 1px solid #697e83;  
  cursor: pointer;  
  box-shadow: 0 5px 10px rgba(0, 0, 0, 0.6);  
}
```

- s. Configure `:hover` pseudo-classes for the `button` class. Use the following colors: `#697e83` and `background-color white (#FFFFFF)`.
- t. Configure the right column area. Add a style rule for the `sideright` class selector to configure an area with a `60% width` and `float right`.

- u. Configure the `bg-color` class selector with a `background-color #F8F9FA` !important.
- v. Configure the `feature` class selector with `text-align center`
- w. Configure the `feature-image` class selector with `relative position` and `text-align center`.
- x. Modify the class `feature-image img` parent child selector with `display inline-block`;
`width 300px` and `margin 1em`;
- y. Configure the `newsletter` class selector with `padding 2em`; `color white (#FFFFFF)`,
`background #35424a`, and `overflow hidden`.
- z. Configure the `newsletter h1` parent child selector with `float left` and `padding-top of`
`0.7em`.
- aa. Configure the `newsletter form` parent child selector with `float right` and `margin 10px`.
- bb. Code the following CSS to the `newsletter input[type="email"]`

```
.newsletter input[type="email"]{  
  padding: 20px 30px;  
  height:2.8em;  
  width:250px;  
  outline: none;  
}
```

- cc. Modify the `footer` class. Configure `float left`, `width 33%`, `align center` and `margin-`
`bottom 4em`.
- dd. Configure the `main-footer` class with `padding 4em 0em 0.9em 0em`; and `background`
`#F2F2F2`;
- ee. Configure the `copyright` class with `centered text`.

Task 5: THE ROOMS PAGE CASCADING STYLESHEET.

1. Configure the `rooms-pic-1` class selector with the following:

```
.rooms-pic-1{  
  max-width: 30%;  
  display: inline-block;  
  position: relative;  
  overflow: hidden;
```

```
padding: 0 1em;  
}
```

2. Configure the `rooms-pic-1 figure` parent child selector with `float left`;
3. Configure the `rooms-body` class selector with `background white (#FFFFFF) !important`; `padding 30px`; `border 1px solid #E6E6E6`; and `border-top none`.
4. Configure the `figure .img` parent child selector with `max-width 100%` and `height auto`.

Task 6: Code this in the footer.

```
<script>  
  
    var date = document.lastModified;  
  
    document.write(date);  
  
</script>
```

Task 6: Submitting your Work.

- All your work should be transferred into the W Drive. The URL to your site should be:
- [http://sw.cs.wvu.edu/~\(username\)/CS202/\(secretfolder\)/Lab1/index.html](http://sw.cs.wvu.edu/~(username)/CS202/(secretfolder)/Lab1/index.html)
- <http://sw.cs.wvu.edu/~nanab24/CS202/monalisa/Lab1/index.html>

How to Setup the Directory and turn in the URL

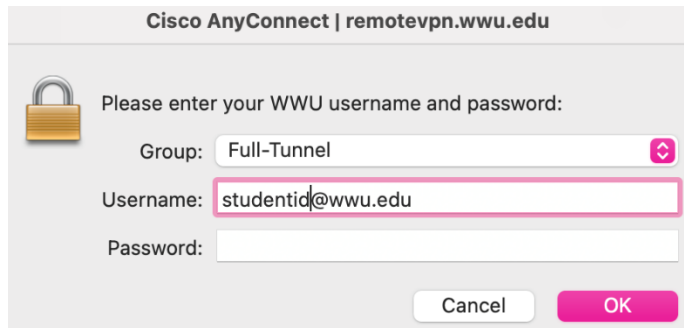
- **NOTE:** Set Up VPN if you are working on off-campus.
- Do not turn in something that looks like:
- <file:\\web\\students\\~nanab24\\CS202\\monalisa\\index.html>
- This is your computer's personal path that file. It is not a URL, and is not accessible to anyone else, thus cannot be graded.

Set Up Your VPN

- Install VPN from **off-campus** using this link: <https://remotevpn.wvu.edu>.
 - This website is not accessible from Western's wired or wireless networks. Currently, **Microsoft Edge** (non-Chromium-based) does **not** load the installer

correctly on or off-campus, so **Chrome, Firefox, Internet Explorer, Chromium-based Edge, or Safari** is advised.

- When prompted, enter your Universal username and password. The group should remain "Full-Tunnel."



- After you sign in, Windows and macOS users will be presented with a download button for the Cisco AnyConnect client.
 - Chromebook users will need to get the Cisco AnyConnect client from the Chrome Web Store, iOS users can get it from the Apple App Store, and Android users can get it from the Google Play Store.
- After installation, the client will automatically start and connect to WWU. Later, you can access the client by going to:
 - Windows: **Start > Programs > Cisco**
 - Mac: **Applications > Cisco**
 - When you click the **Connect** button, the client should connect automatically to the WWU VPN server. If the "Connect to" field is blank, enter the address of the VPN server: **remotevpn.wvu.edu**

Now that we are virtually connected to Western's network, we can access local resources as if we were on campus.

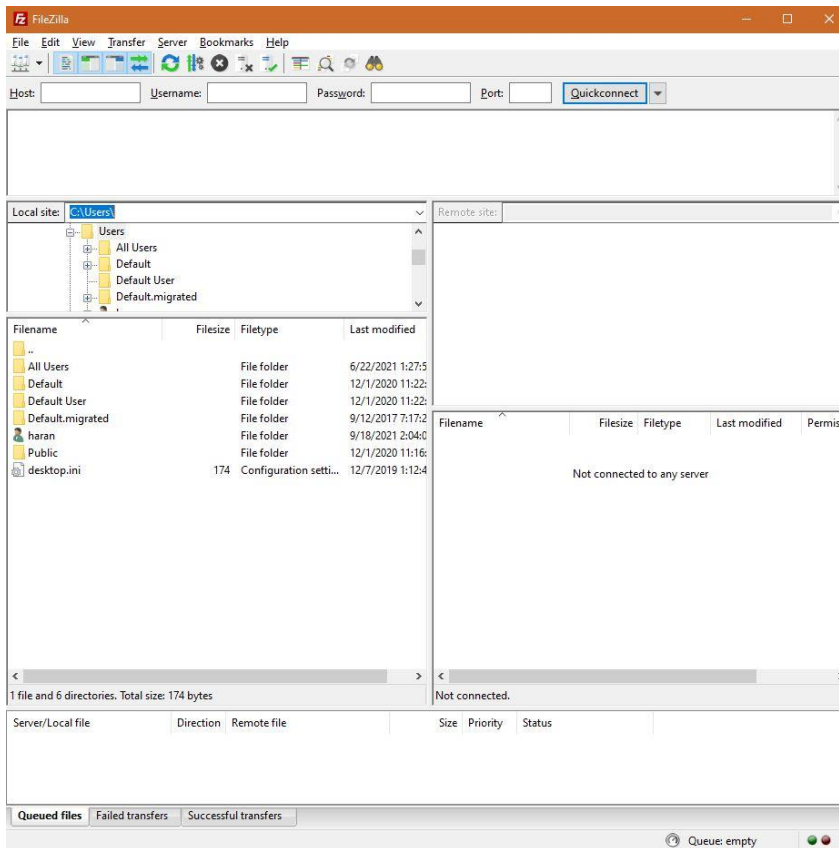
FTP Client

- Open a browser and go to: <https://filezilla-project.org/download.php?type=client>

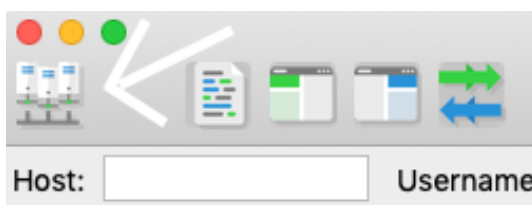
- Click the Download button



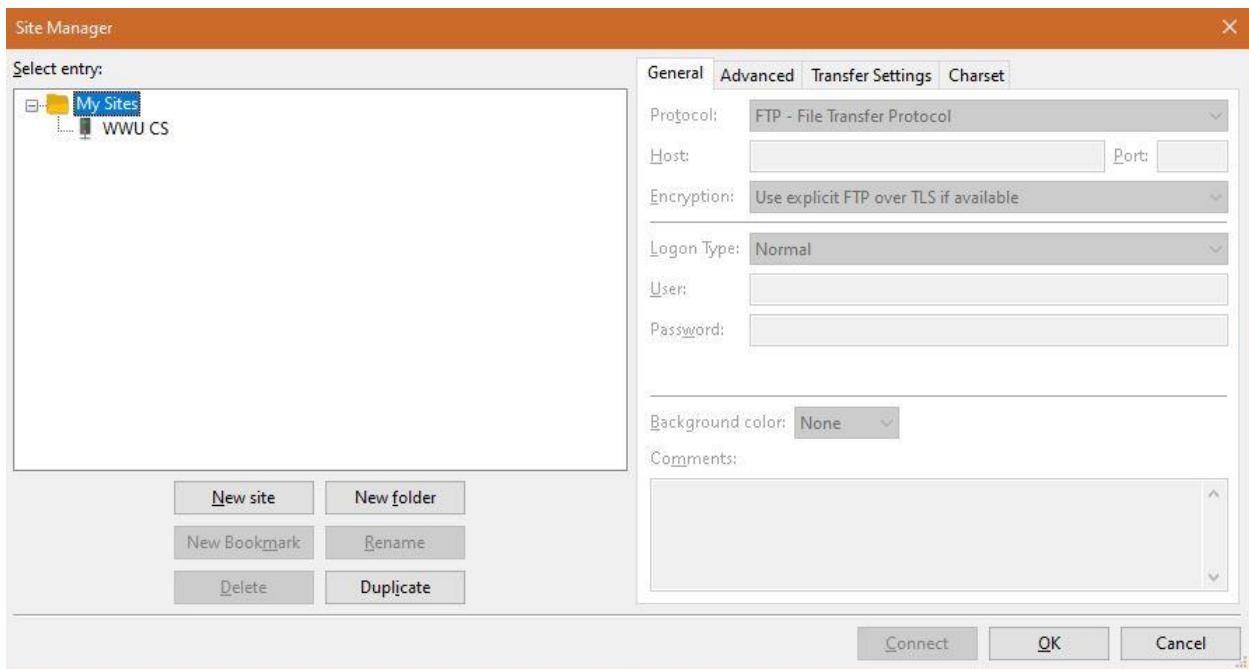
- Install FileZilla (Note on some Windows 10 machines, the x86 version works better than the x64 version).



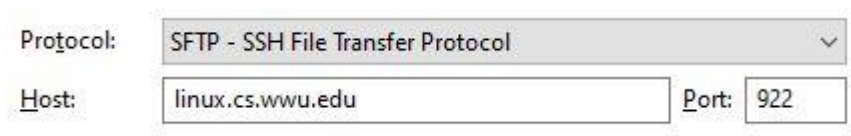
- **Open FileZilla after it has been installed**
- FileZilla is an FTP client that we will use to put our HTML files in a place where we can access them over the internet.
- **Open the site manager on FileZilla**



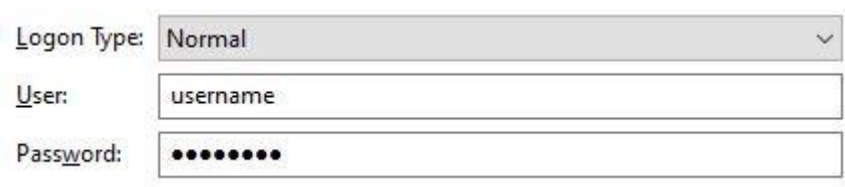
- Click the "New Site" button



- Name the site "WWU CS."
- Using the drop-down on the right, change the protocol to:
 - "SFTP – SSH File Transfer Protocol"
- Change the Host to:
 - linux.cs.wwu.edu
- Change the Port to **922**

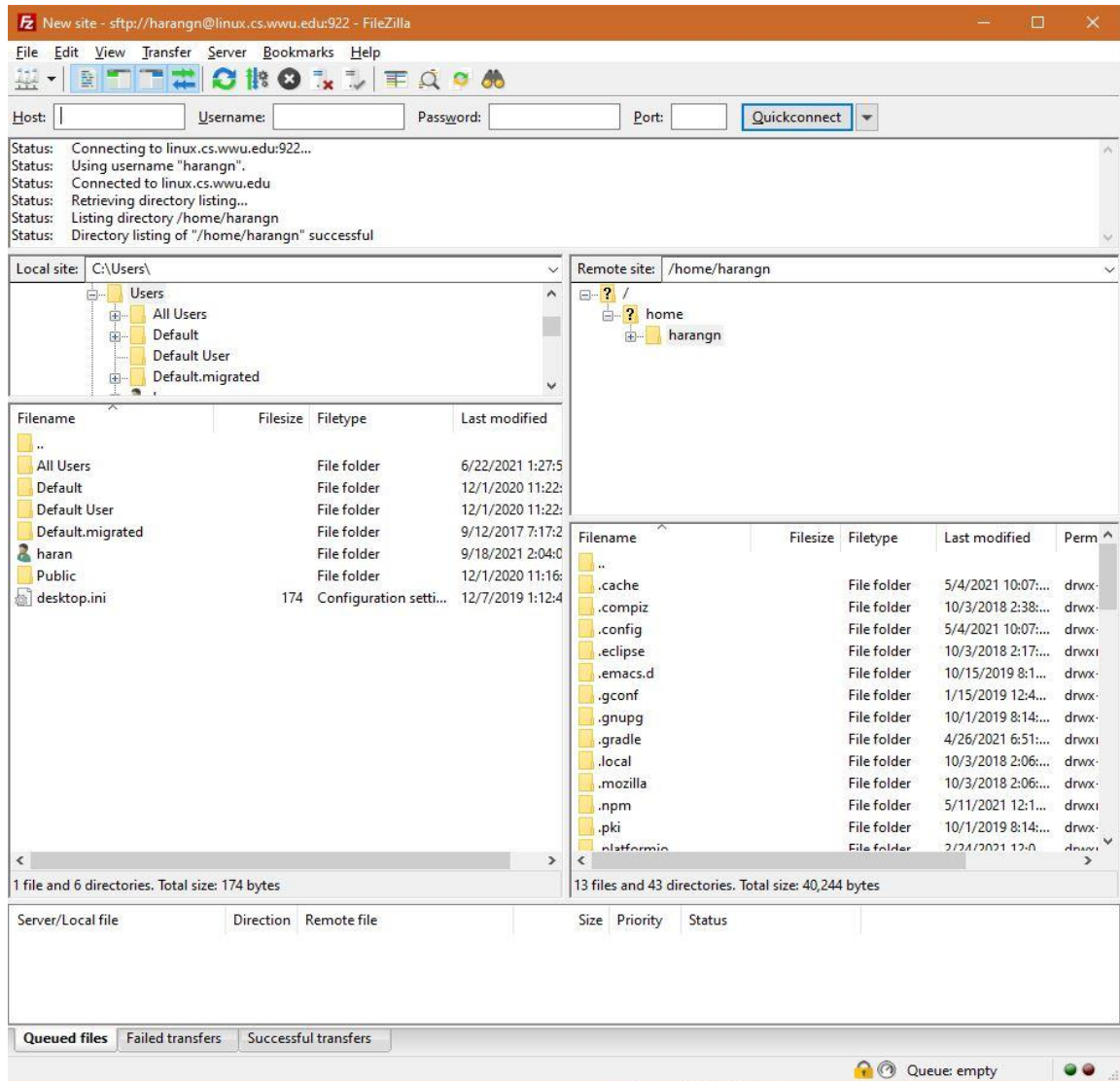


- Leave Logon Type as "Normal"
- Enter your Username and Password for CS.

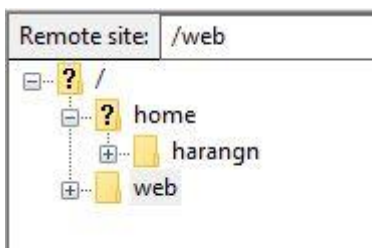


- Hit the "Connect Button"

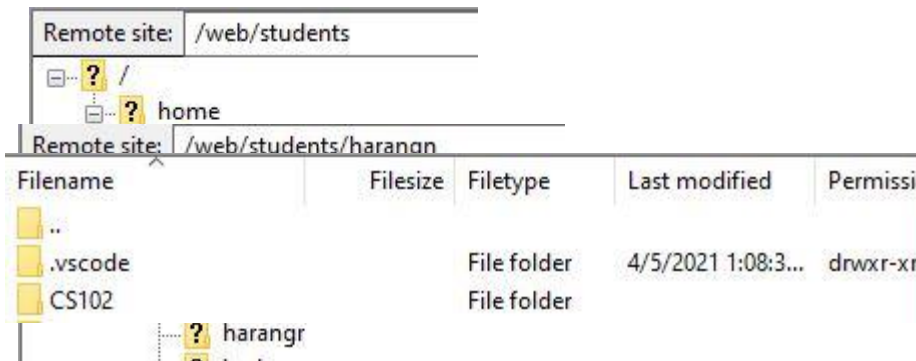
- Once it connects, all the windows should have something in them:



- The "Local" window shows your local path and what directory you are in on your machine
- Below that is the contents of that directory
- The "Remote" windows show the server path and what directory you are in
- Below that are the contents
- Double-click the "/" in the "Remote" window. That will take you to the root directory.
- Scroll down to "web."



- Use the drop-down arrow and select "students."
- Use the drop-down arrow and select your username
- Right-click and create a Directory named CS202
- Open CS202 and create another Directory named with your secret Folder.



- Now Create Lab1 Folder and from your desktop, drag in your all files from lab1 Folder into the window showing the contents of the "Remote" path (The one below the one we were using)."



Open your file with a browser

- To open your file, navigate to a web browser (Google Chrome or Safari or Firefox). and type in the following URL replacing (login name) with your username and (secret folder) with your secret folder name.

[http://sw.cs.wvu.edu/~\(username\)/CS202/\(secret folder\)/Lab1/index.html](http://sw.cs.wvu.edu/~(username)/CS202/(secret folder)/Lab1/index.html)

- So, for example, if your username is nanaba24, and your secret folder is MonaLisa, then your URL should be:

<http://sw.cs.wvu.edu/~nanab24/CS202/MonaLisa/Lab1/index.html>

Your zipped folder should be:

- **Lab1last_name.zip**

All work should be turned in as a Canvas **URL/zip** submission as described above. I recommend double-checking that your submission is complete. Late assignments, broken URLs, or incorrect submission items will be penalized two points per 24-hours passed from the due date.

The last date for submission of Lab assignment is 11:59 p.m. Saturday January 15, 2022

Points Breakdown

Folders are created according to instructions above - **2 points**

Correctly created Home page: index.html – **4 points**

Correctly created Rooms page: rooms.html – **4 points**

Correctly modified Home page with the external **css** – **5 points**

Correctly modified Rooms page to be consistent with the Home page. – **5 points**

Any submission without a working URL will earn **0 points**