

# **Fundamentals of Web-Based Multimedia Communications: Imagining the Internet's Interface**

## **Introduction to JavaScript cont'd**

Wednesday 10/19, 1:45-3:00pm

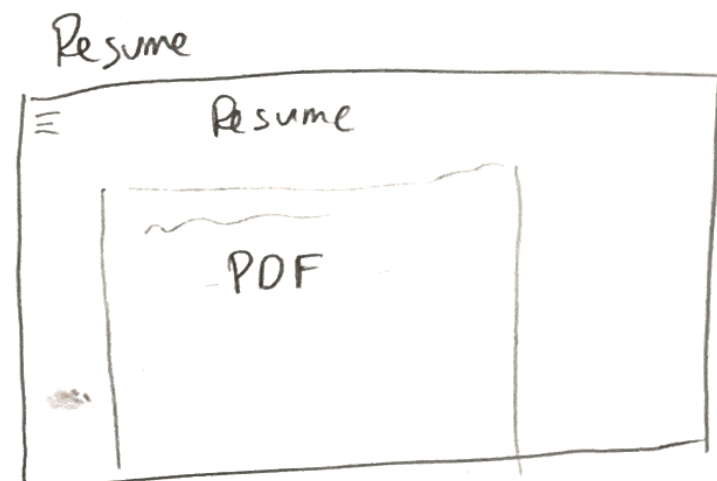
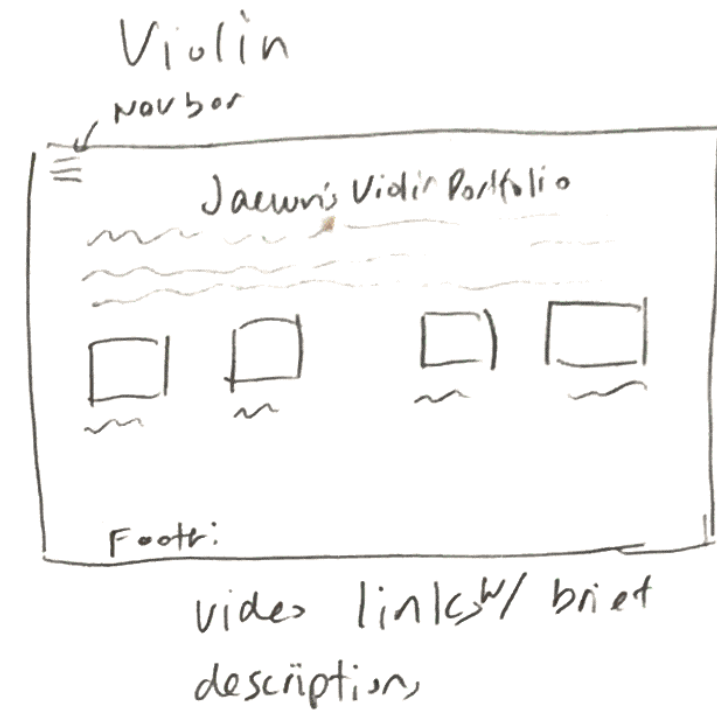
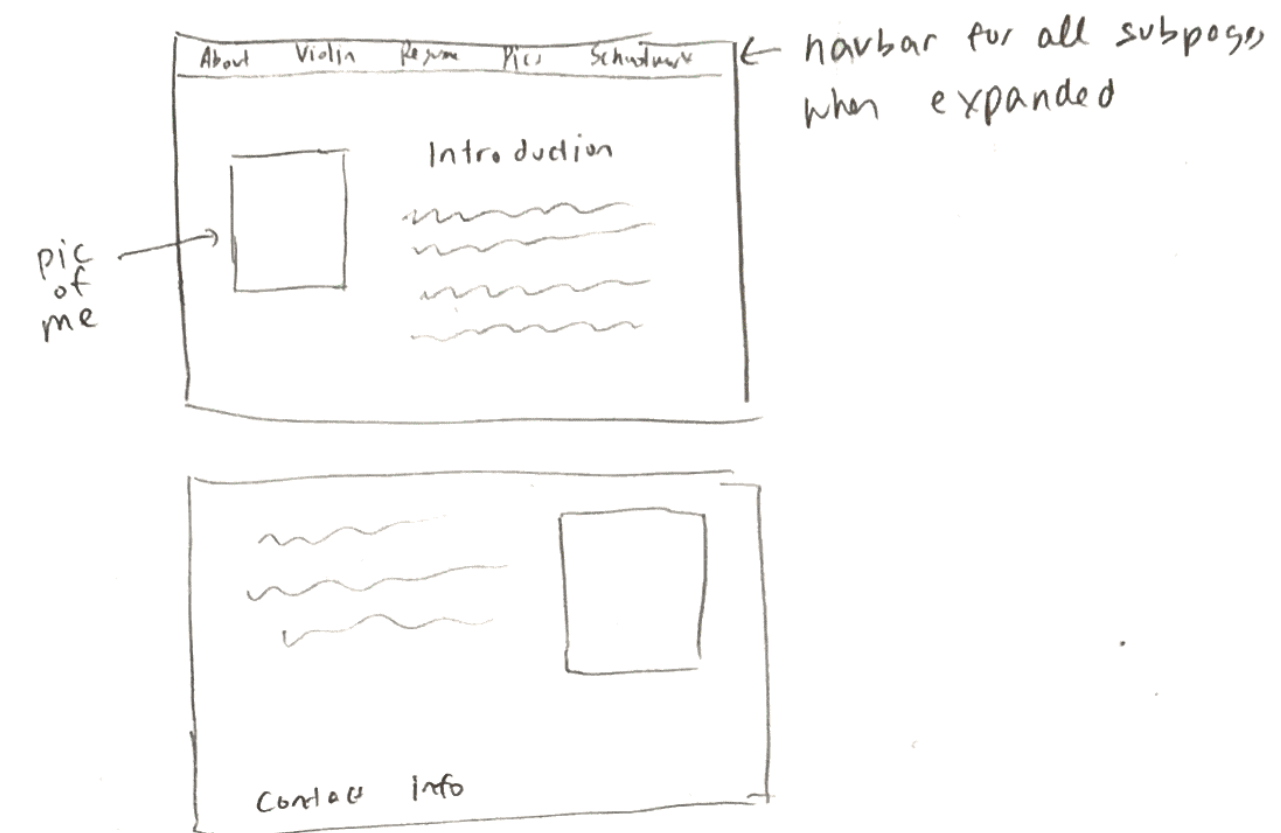
Smith Warehouse Bay 12 A228

CMAC 240L, CMAC 740L, ISS 240L, ISS740L, VMS288L, VMS788L

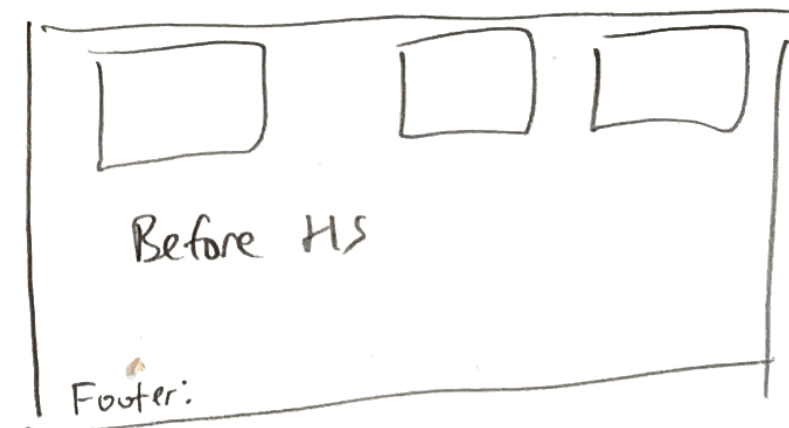
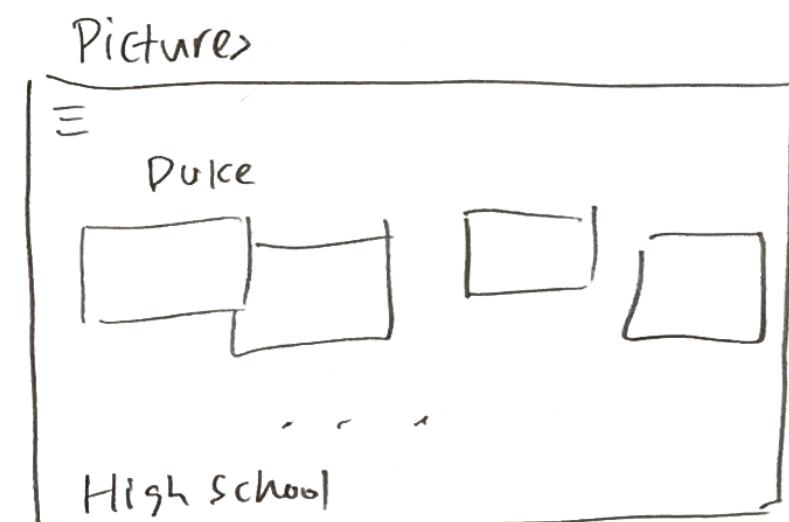
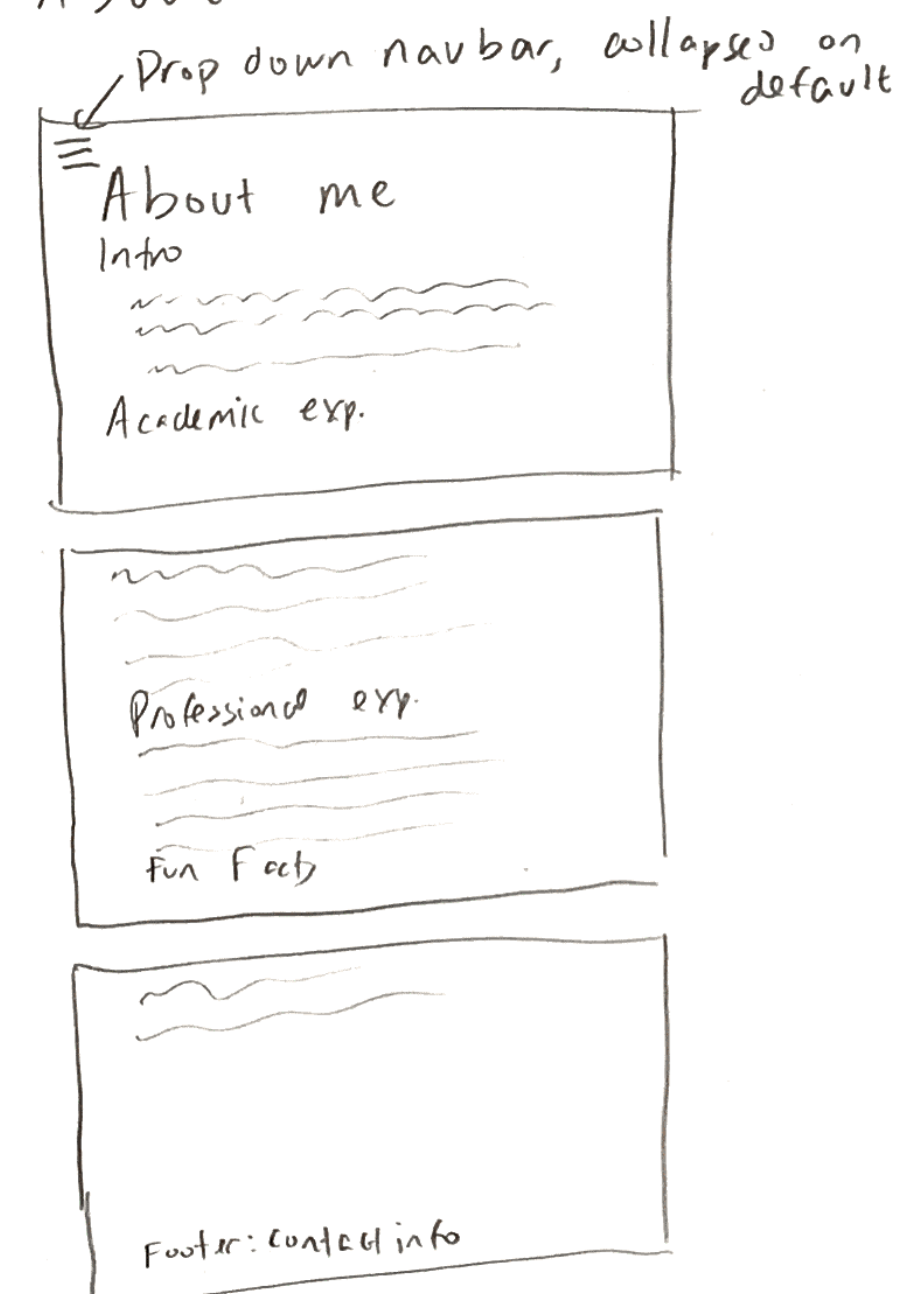
# **Review: wireframe and sitemaps**



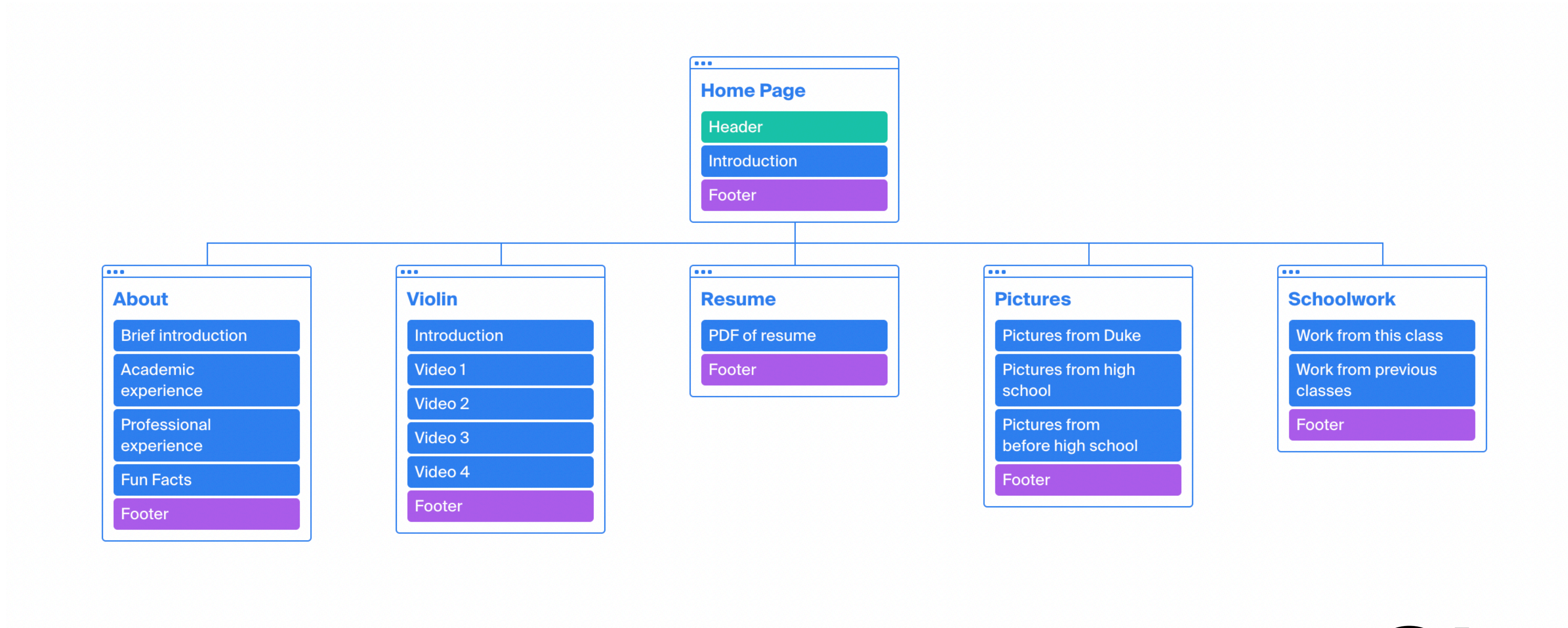
## Home page



## About



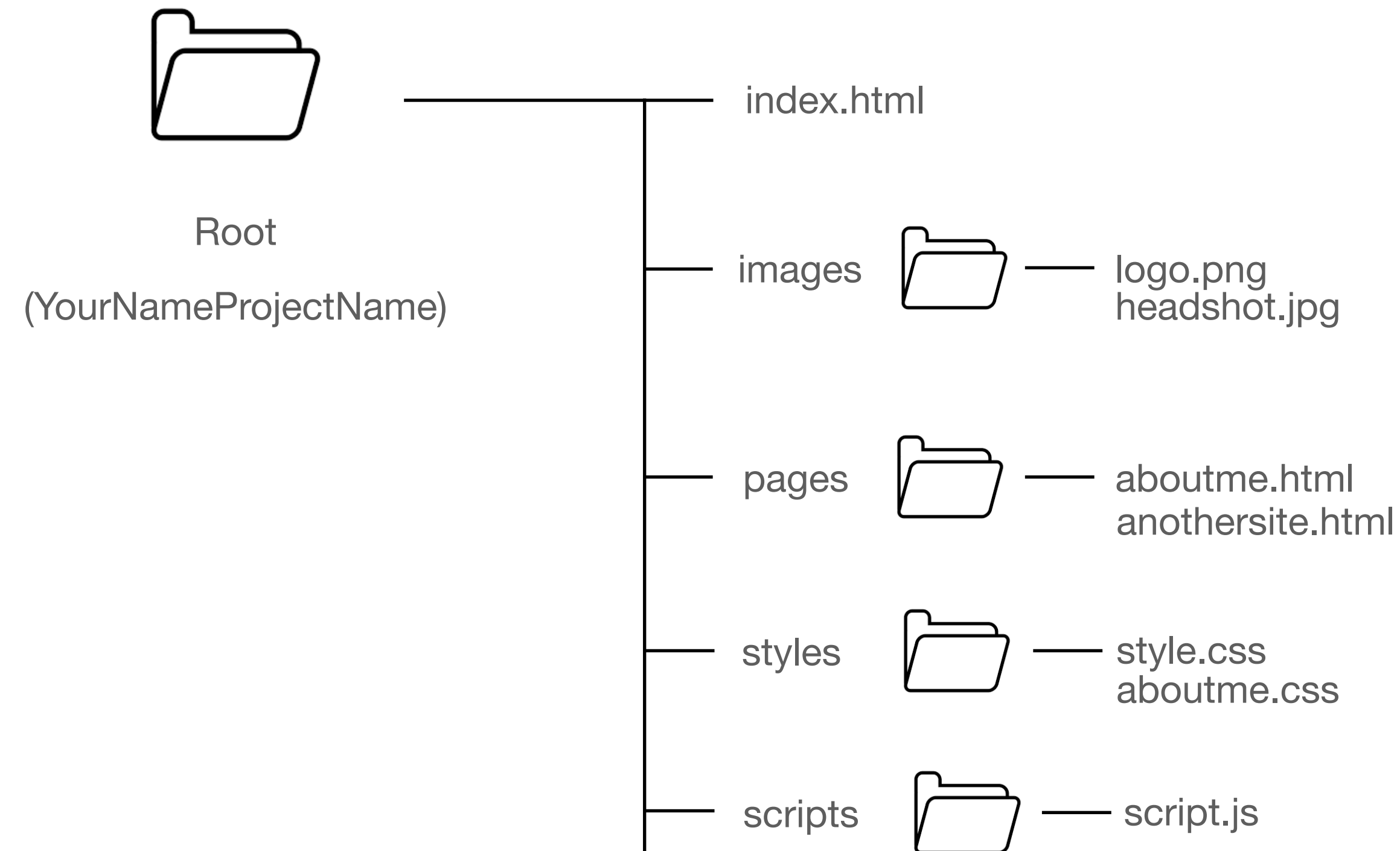
**Wireframe**  
Image credit: Jaewon Jung



# Site Map

Image credit: Jaewon Jung

# Reminder: file structure!



You can choose to create an external file for JavaScript or use internal JavaScript with the `<script>` element i.e. in the class example today

# Review: Flexbox and Grid

## Some great examples:

Open and inspect in the browser Firefox:

Allison: <https://al-cheny.github.io/pages/Layouts/index.html>

Georgia: <https://jiangxinzhezhe.github.io/LayingOutLayouts/index.html>

Some reflections on Laying out Layouts so far:

- Laying out Layouts (as described on Sakai and the syllabus): “make an informational website **both telling and demonstrating** how the CSS Box Model works, and how to use Floats, Flexbox, and CSS Grid to create responsive designs”
- Must at least **demonstrate Grid, Flexbox, and the Box Model for full technical points** (I’ll excuse floats)
- At least a couple of you spent time *illustrating* the box model, which is great, but all I needed to see was the box model in use and some content explaining how you used it! *I think some of you got tripped out by creating a div named margin and then having to set a margin property to the margin selector, etc...*



# Introduction to JavaScript cont'd

# Modifying HTML and CSS

## JavaScript Dot Notation

- JavaScript Dot Notation uses “dots” or periods to access properties of an object
- i.e. `allPara[1].style.background = “red”;`
- `allPara[1]` is the object
- `style` accesses the CSS of the object
- `background` accesses the specific CSS property
- “red” is the value that you are setting for the element object
- syntax: `element.style.property = “value”;`



# Modifying HTML and CSS

## JavaScript Dot Notation

- i.e. `document.getElementById("myList").innerHTML = "replace text";`
- Here we have not declared a variable like `"let list = "`
  - (Declaring a variable is useful but you don't have to declare a variable to modify the HTML or CSS)
- `document` is the object
- `getElementById("myList")` is the method
- `.innerHTML` is the HTML text accessed as an object property

# Events and Event Listeners

## Triggering Javascript based on a certain input

- When a user clicks the mouse
  - When a web page has loaded
  - When an image has been loaded
  - When the mouse moves over an element
  - When an input field is changed
  - When an HTML form is submitted
  - When a user strokes a key
- Event listener syntax:  
`element.addEventListener(event, function, useCapture);`
  - (We will see an example in just a bit)
  - List of events (**highly recommend you explore this, knowing these increases your possibilities for interaction**)

# Functions vs Methods

And how to write your own function!

- A function is code written to perform a task
- Methods are properties containing functions i.e. `document.getElementById()`
  - “document” is the object - the DOM
  - “getElementById()” is the function using dot notation to store as property
- **There are functions that are pre-written for you to use, and you can create your own functions**
- The functions you create will likely have multiple methods and functions in it

# Writing a function

## And how to write your own function!

- Repeat: A **function** is code written to perform a task
- Repeat: **There are functions that are pre-written for you to use, and you can create your own functions**
- Repeat: The functions you create will likely have multiple methods and functions in it

Syntax:

```
function anyName (parameter1, parameter2....){
```

```
//insert functions and methods here
```

```
};
```

- You do not always need to give parameters

```
function anyName() {
```

```
//if parameters are empty, everything is defined within the function
```

```
};
```



# JavaScript MadLibs

Go to the Resources Folder in Sakai and download MadLibs zip

It was a (adjective) night at (place), Durham, North Carolina.  
(Protagonist name) and (Protagonist name 2) were (present tense verb), and they accidentally (past tense verb). Thankfully, they (past tense verb) a (noun) and made it to (place) safely.