# CSc 337 - HTML

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# HyperText Markup Language

- Markup Language `!=` Programming Language
- [HTML](#) specifies the ***content*** of the website
- Not responsible for
  - ○ Style (colors, fonts, positioning, etc)          **CSS**
  - ○ Animation / Interaction                           **CSS** / **Js**
  - ○ Functionality / Computations                      **Js**
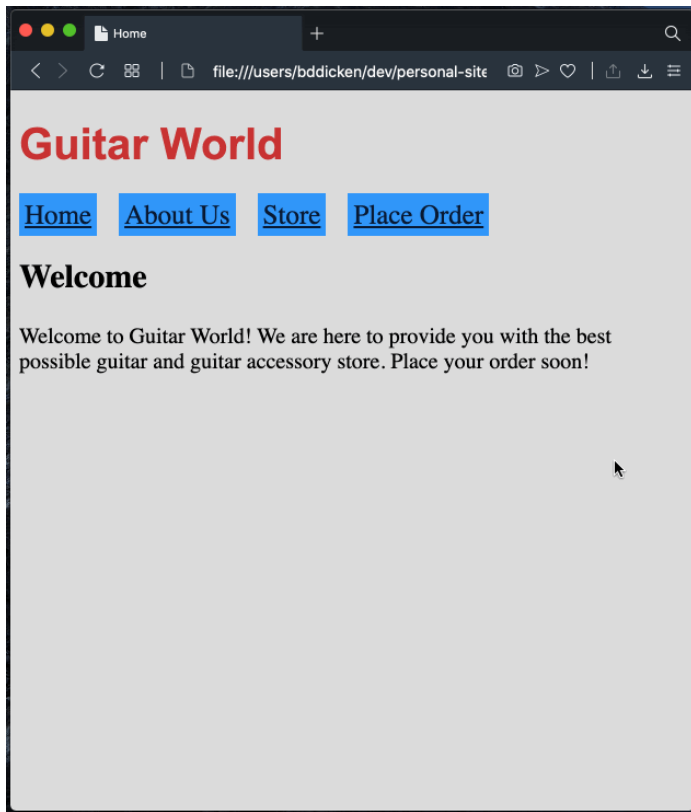  - ○ Networking                                         **Js**

# The Goal

# Text Editor, Vim

- I'll be using vim a lot for this class
- Remote sessions
- [Vim Tutorial](#)
- [How to get setup for Windows](#)

```html
<!DOCTYPE html>
<html>

    <head>
    </head>


    <body>
    </body>

</html>
```

```html
<!DOCTYPE html>
<html>

  <head>
    <title>Guitar World</title>
  </head>

  <body>
    This website is all about guitars.
  </body>

</html>
```

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Guitar World</title>
  </head>
  <body>
    <h1>Guitar World</h1>
    <h2>Home Page</h2>
    <h3>Welcome!</h3>
    <p>Buy guitars here!</p>
  </body>
</html>
```
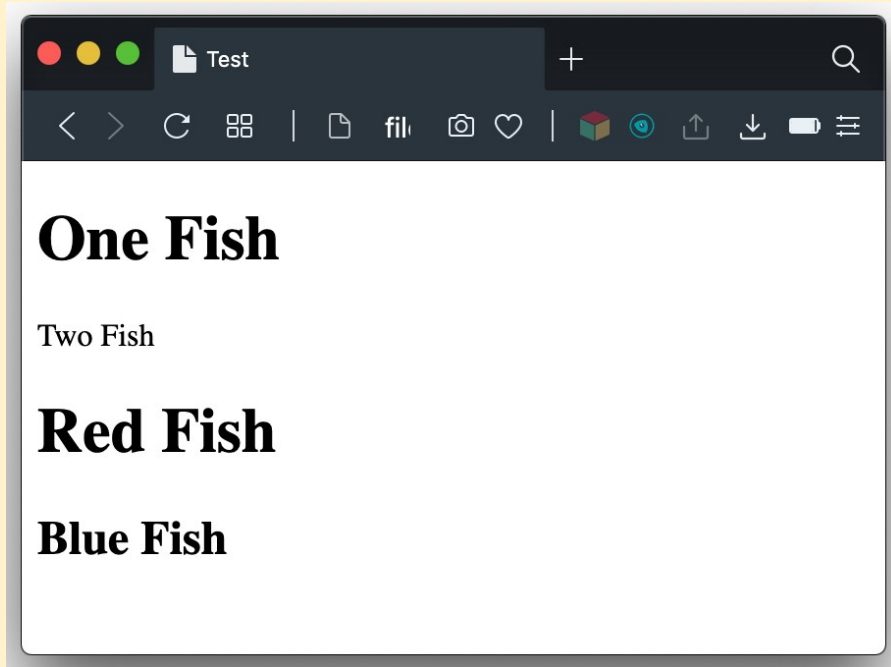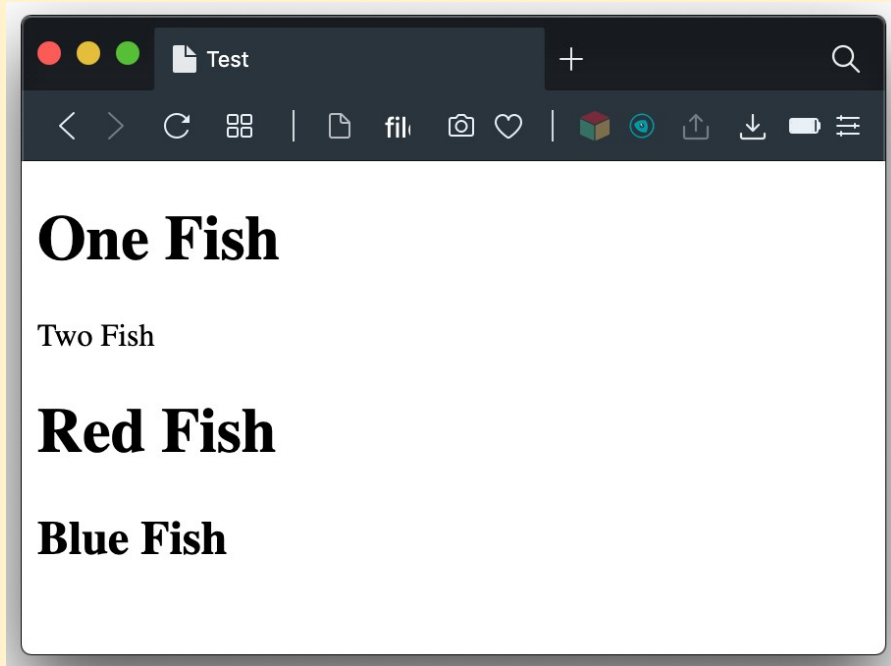
# Write the HTML

What HTML in the body of a webpage would produce this result?

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What HTML in the body of a webpage would produce this result?



```
<body>
  <h1>One Fish</h1>
  <p>Two Fish</p>
  <h1>Red Fish</h1>
  <h2>Blue Fish</2>
</body>
```
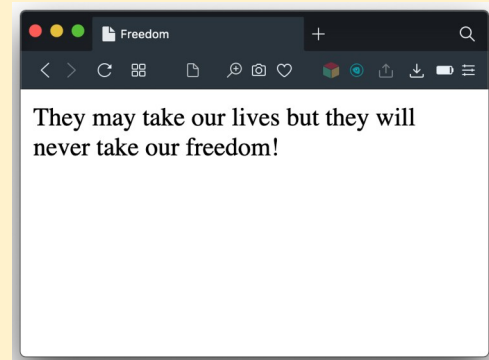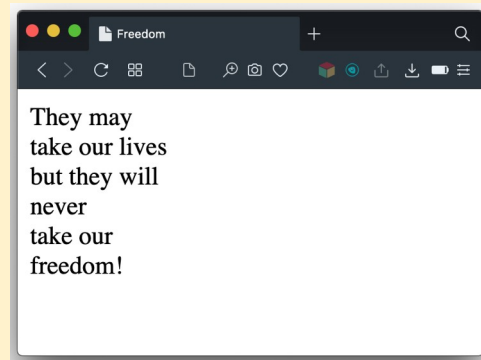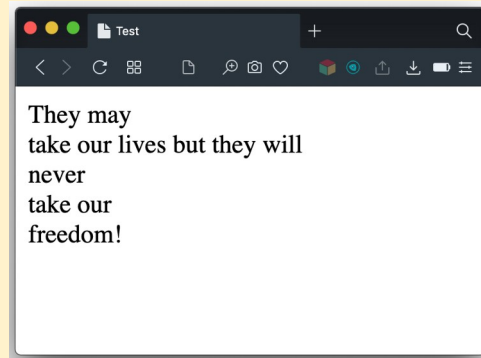
# Display Type

- By default, browsers display many HTML elements in either **block** or **inline** mode
- Block means that each element is on its own row, and consumes the entire page width
- Inline means that elements can be displayed inline, do not consume entire width
- **<span>** vs **<div>**

https://www.w3schools.com/css/css_inline-block.asp

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Guitar World</title>
  </head>
  <body>
    <div>Taylor</div>
    <div>Ibanez</div>
    <div>Fender</div>
    <span>Martin</span>
    <span>Yamaha</span>
    <span>Ernie Ball</span>
  </body>
</html>
```

# What would the HTML display?

```
<!DOCTYPE html>
<html>
  <head>
    <title>Freedom</title>
  </head>
  <body>
    <div>They may</div>
    <span>take our lives</span>
    <span>but they will</span>
    <div>never</div>
    <div>take our</div>
    <span>freedom!</span>
  </body>
</html>
```

# List Data

- For displaying, well, lists
- Use
  - `<ul>` to state the existence of an **unordered** list
  - `<ol>` to state the existence of an **ordered** list
  - `<li>` represents a list element

```
<body>
    <ul>
        <li>Guitar</li>
        <li>Bass</li>
        <li>Drums</li>
    </ul>
    <ol>
        <li>Taylor</li>
        <li>Martin</li>
        <li>Ibanez</li>
    </ol>
</body>
```
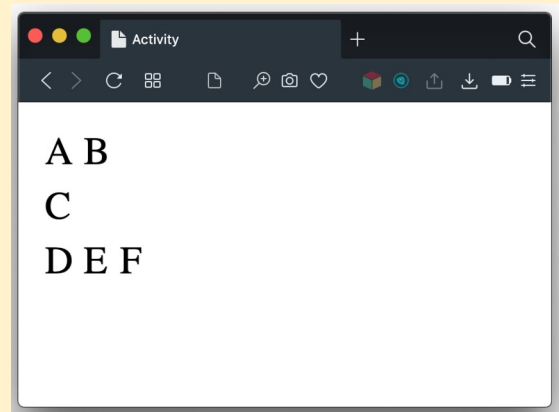
```html
<body>
    <ul>
      <li>Guitars
        <ul>
            <li>Acoustic</li>
            <li>Electric</li>
            <li>Air</li>
        </ul>
      </li>
      <li>Bass</li>
      <li>Drums</li>
    </ul>
</body>
```
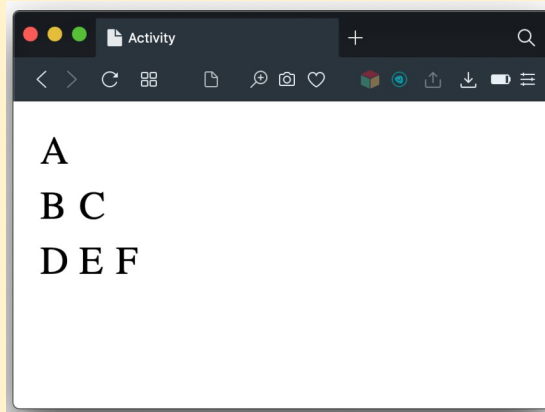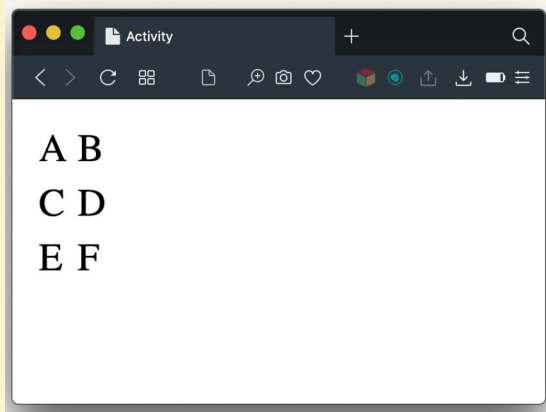
# Tabular Data

- Often useful to display data in a grid-like format
  - ESPN stats, wikipedia data, gradebook
- Use
  - **`<table>`** to state the existence of the table, and within
  - **`<tr>`** represents a row in the table
  - **`<th>`** represents a header element within the table
  - **`<td>`** represents a data element within the table

```html
<body>
  <table>
    <tr>
      <th>Guitar</th>
      <th>Bass</th>
    </tr>
    <tr>
      <td>Taylor</td>
      <td>Ernie Ball</td>
    </tr>
    <tr>
      <td>Martin</td>
      <td>Ibanez</td>
    </tr>
  </table>
</body>
```

# What would the HTML display?
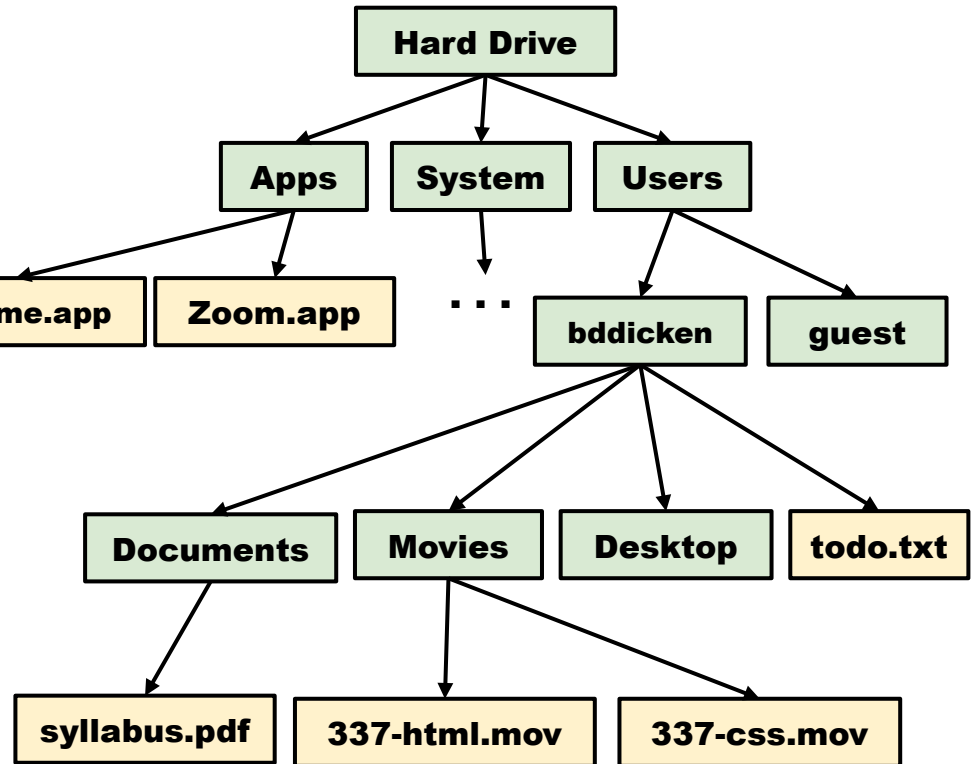
```
<body>
  <table>
  <tr><td>A</td></tr><tr><td>B</td><td>C</td></tr>
  <tr><td>D</td><td>E</td><td>F</td></tr>
  </table>
</body>
```
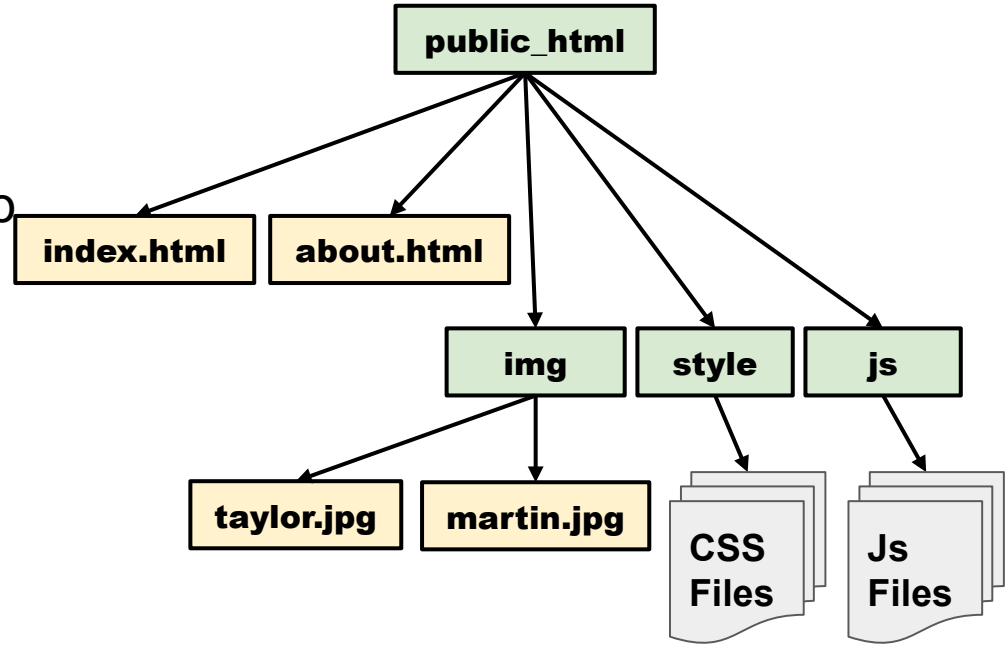
# Files and File Systems

- On (at least most of) our computers, there is a **file system** via which we can create, save, modify, and remove files
  - On Mac: can browse with Finder
  - On Windows: can browse with windows explorer
- File systems often hierarchical

```
Hard Drive
├── Apps
│   ├── Chrome.app
│   └── Zoom.app
├── System
│   └── ...
└── Users
    ├── bddicken
    │   ├── Documents
    │   │   └── syllabus.pdf
    │   ├── Movies
    │   │   ├── 337-html.mov
    │   │   └── 337-css.mov
    │   ├── Desktop
    │   └── todo.txt
    └── guest
```

# Website Structure

- All files go in public_html
- Always have an index.html
- Can have other "pages" too
- Subfolders for resources

# The a tag

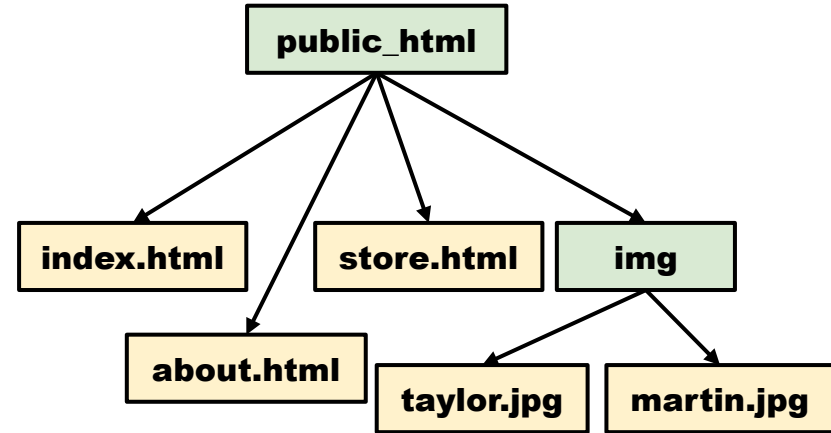**`<a>`** used to link from one page
(html file) to another

In **`index.html`**:

```
<a href="./about.html">About Us</a>
<a href="./store.html">Shop</a>
```
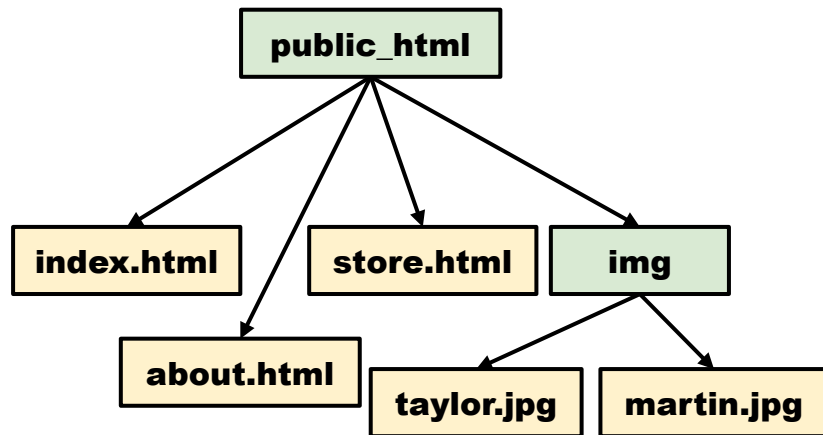
# The img tag

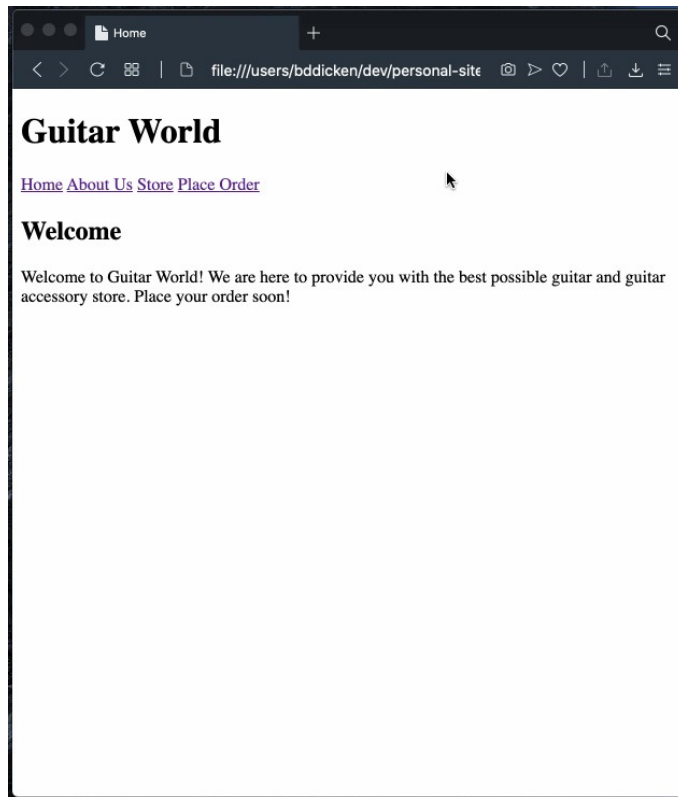**`<img>`** used to link from one page (html file) to another, self-closing

In **`store.html`**:

```
<img src="img/taylor.jpg"
     alt="Pic of taylor Guitar"
     width="200px"
     height="100px" >
```

# Let's build it!

*(For now, skip "Place Order" page)*

# HTML Validator

[https://validator.w3.org](https://validator.w3.org)