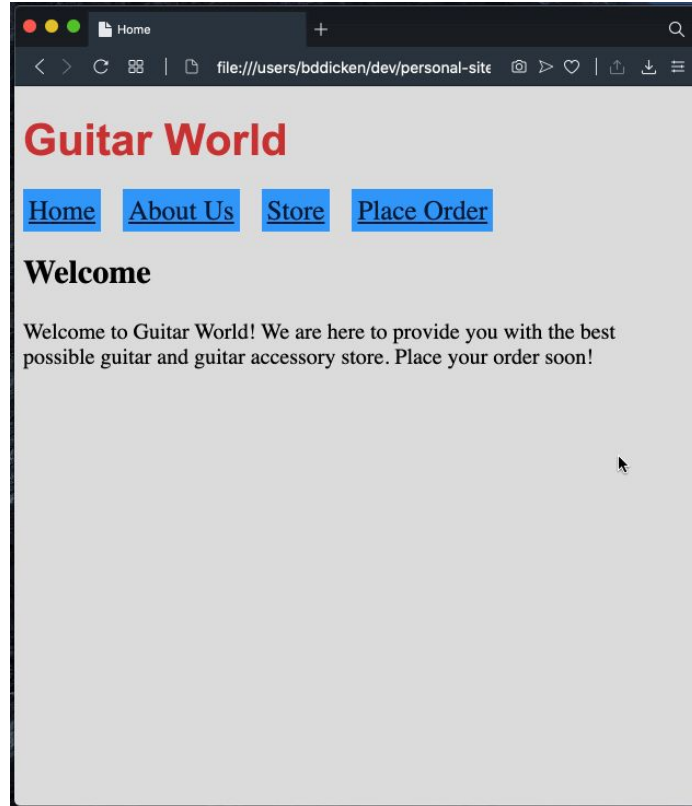# CSc 337 - HTML

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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>
```
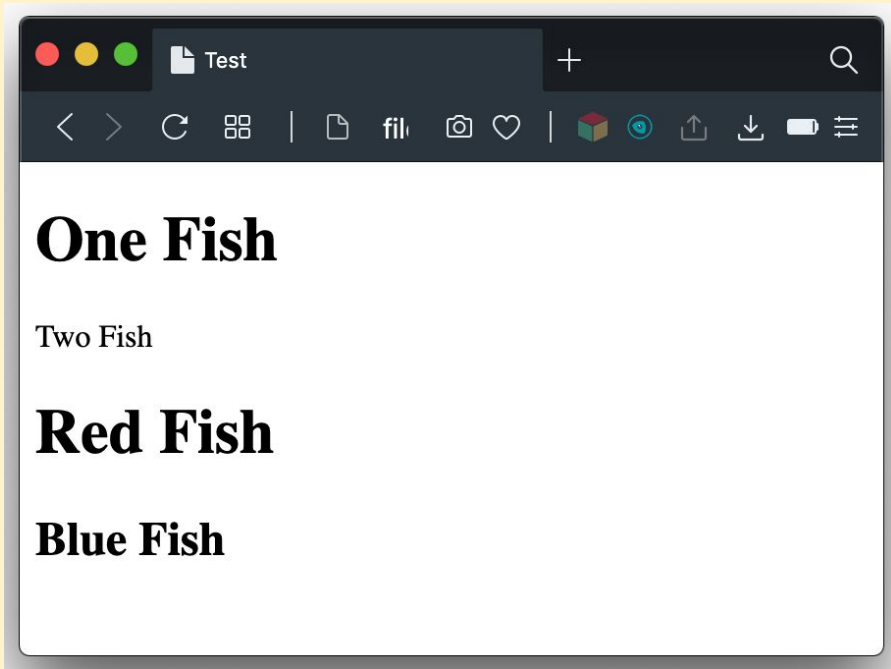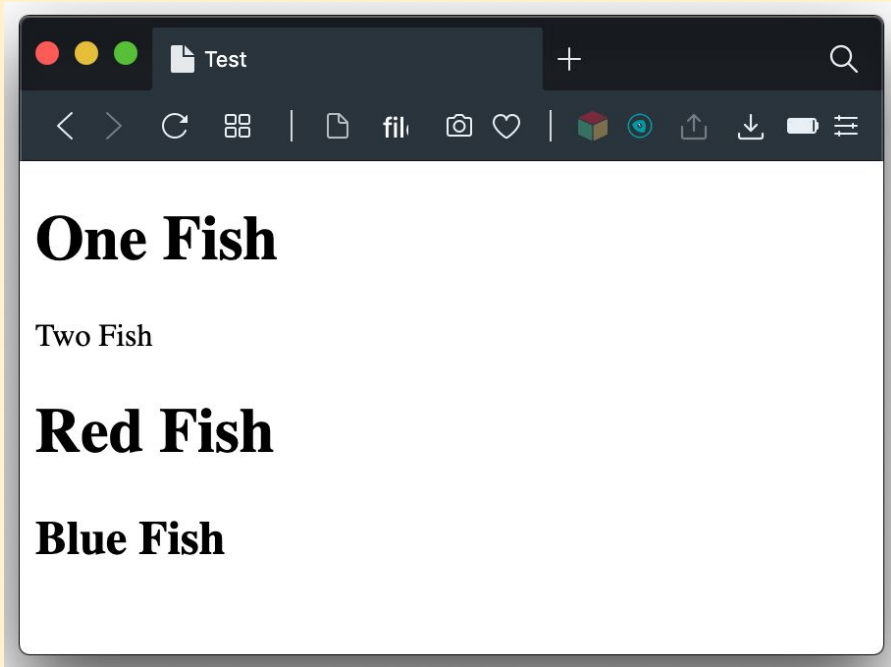
Write the HTML

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

Write the HTML

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>
```
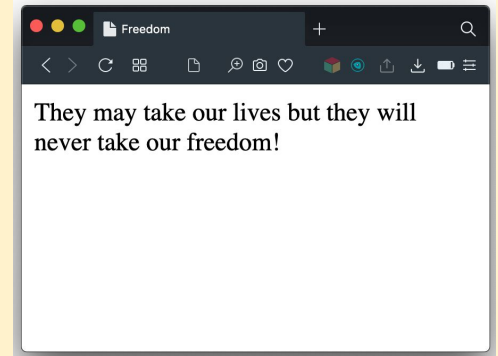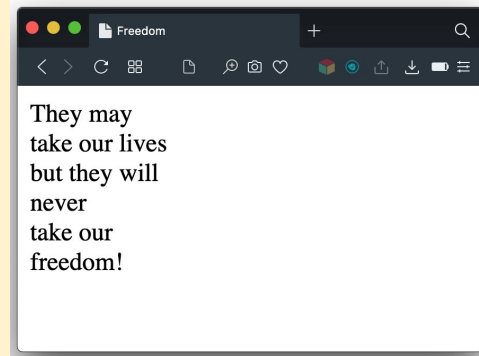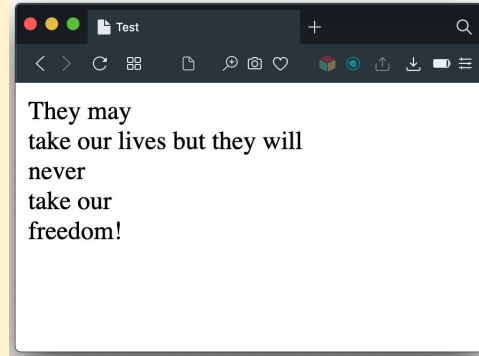
Display Type

- 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>
```


Test

They may
take our lives but they will
never
take our
freedom!

Freedom

They may take our lives but they will never take our freedom!

Freedom

They may
take our lives
but they will
never
take our
freedom!

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

```html
<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>
```
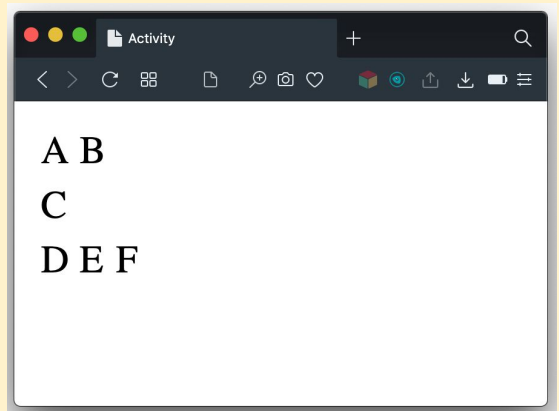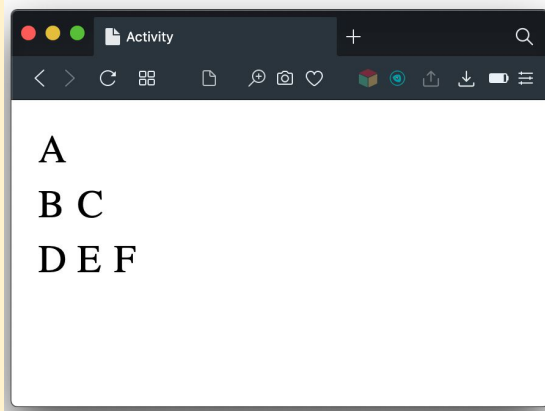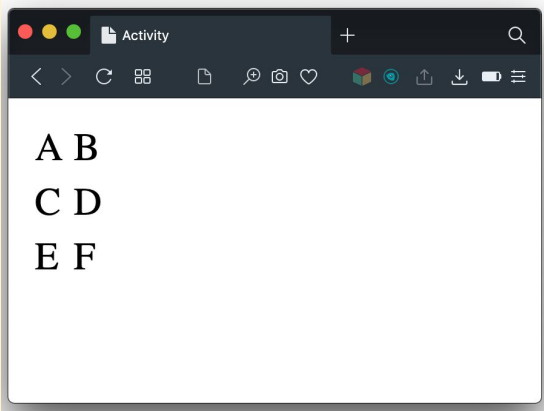
Tabular Data

- 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?
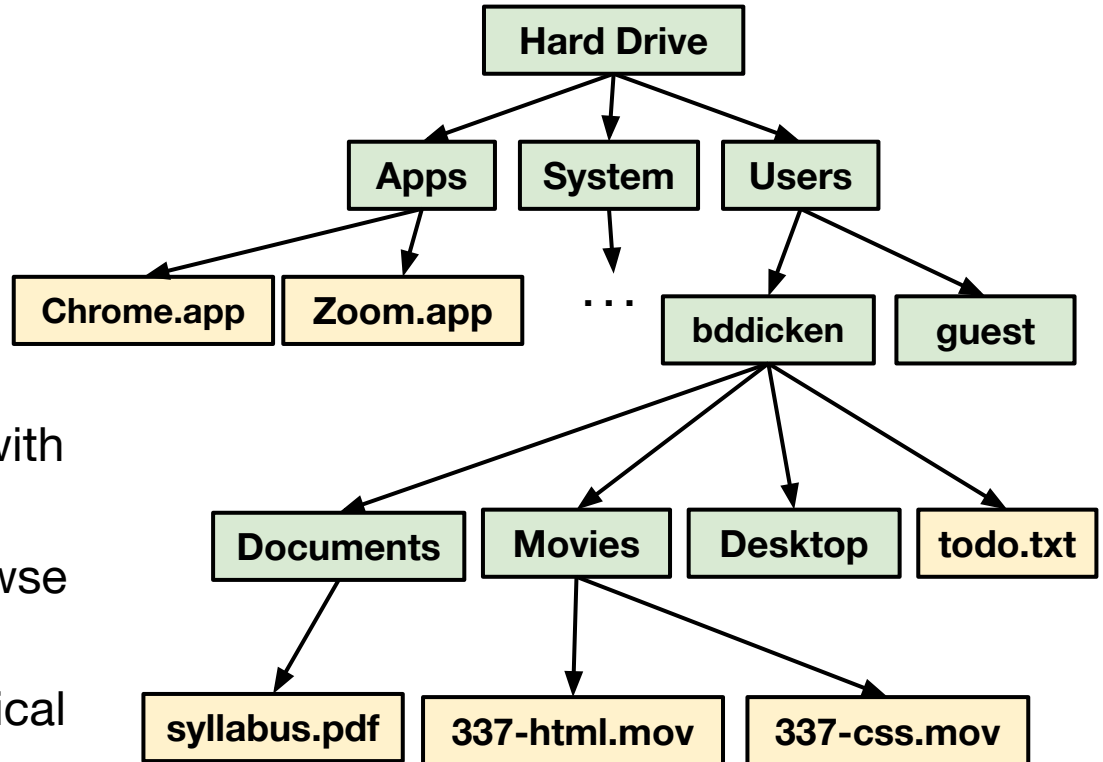
```
<body>
  <table>
  <tr><td>A</td></tr><tr><td>B</td><td>C</td></tr>
  <tr><td>D</td><td>E</td><td>F</td></tr>
  </table>
</body>
```
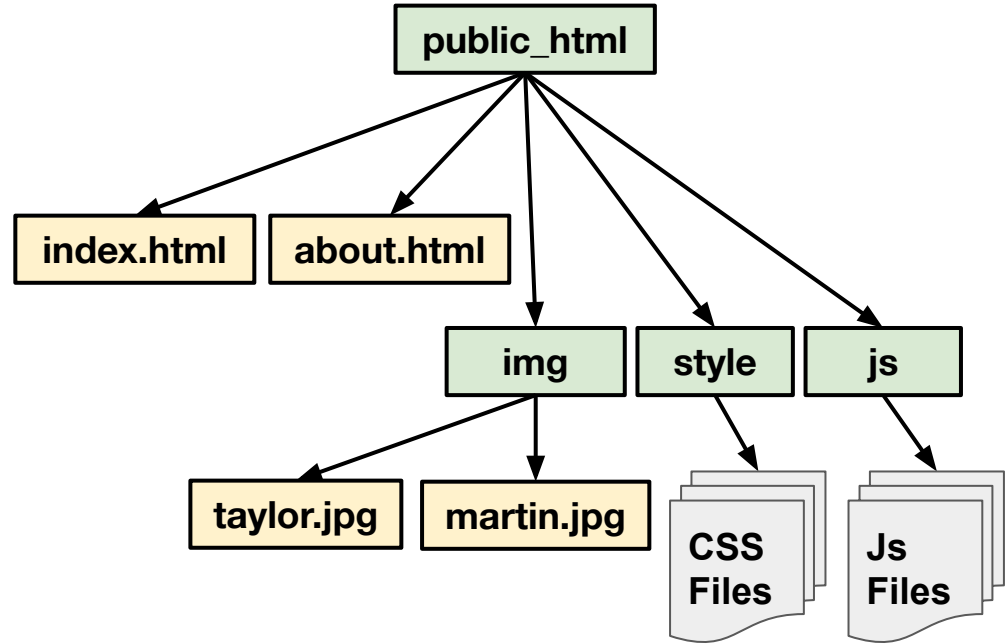
Files and File Systems

- 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

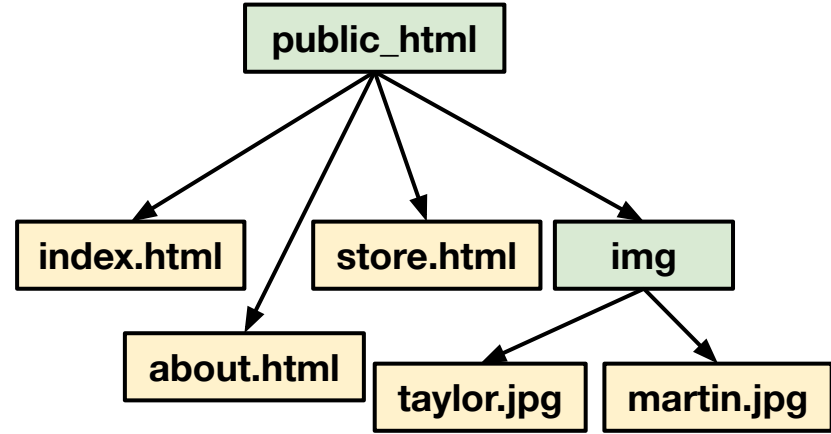**`<a>`** used to link from one page (html file) to another

In **`index.html`**:

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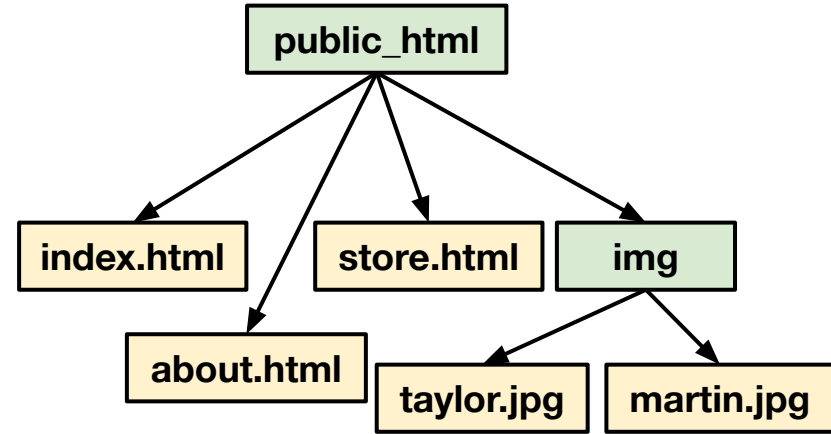
The img tag

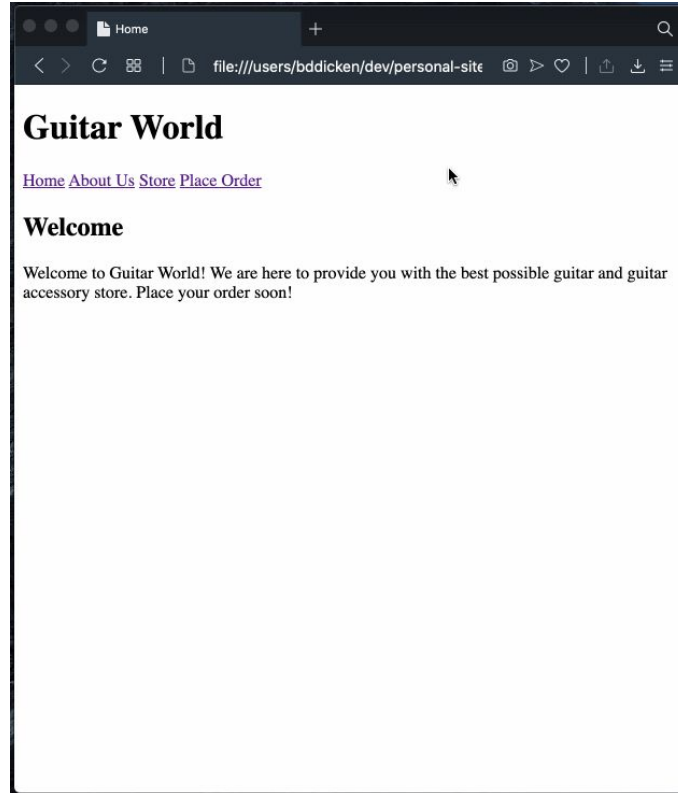**`<img>`** used to link from one page
(html file) to another, self-closing

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