

Web Engineering & Development (SWE 363)

2.2 More HTML (Hypertext Markup Language)

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Announcements

- We allow teams of 4 but with higher expectations
- Graders assigned and will be looking into your code

In today's Lecture:

- Links
- Containers
- Forms
- Form Widgets

Reference:

- Zybook: 2.6 to 2.7

Links

Connect different pages together

a simple Link

```
<a href="https://google.com">Link</a>
```

A link with an image

```
<a href="https://google.com">  
  
</a>
```

Board activity:

How can we link to a page located in the same directory?

Containers

grouping elements together

Common Container tags

- `<header>` : Header
- `<main>` : Main Content
- `<section>` : Section
- `<article>` : Article
- `<footer>` : Footer
- `<nav>` : Navigation
- `<div>` : Division
- `` : Span

Messy Code Example

```
<html><head><title>My Page</title></head><body><h1>Welcome</h1><p>This is a paragraph with no spacing or proper indentation making it very hard to read and maintain</p><div><ul><li>Item 1</li><li>Item 2</li><li>Item 3</li></ul></div><a href="link.html">Click here</a><script>function doSomething(){var x=1;var y=2;var result=x+y;return result;}</script></body></html>
```

Board Challenge:

How would you structure this page using containers?

Clean Code Example

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Page</title>
</head>
<body>
  <header>
    <h1>Welcome</h1>
  </header>

  <main>
    <p>This is a paragraph with proper spacing and indentation, making it easy to read and maintain.</p>

    <section class="content">
      <ul>
        <li>Item 1</li>
        <li>Item 2</li>
        <li>Item 3</li>
      </ul>
    </section>

    <a href="link.html">Click here</a>
    
  </main>
</body>
</html>
```

Block vs Inline Elements

- **Block**: Takes up the full width of the container: `<div>`, `<section>`, `<article>`, `<header>`, `<footer>`, `<p>`, `<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>`
- **Inline**: Takes up only the width of the content: ``, `<a>`, ``, ``, ``

Forms

Make website interactive

A simple form

```
<form action="process_form.php" method="post">  
  <label for="name">Name:</label>  
  <input type="text" id="name" name="name">  
  <input type="submit" value="Submit">  
</form>
```

action: The URL where the form data will be sent

method: The HTTP method to use (POST or GET)

input: The input field where the user will enter the data

submit: The button that will submit the form

Get vs Post

- Get: Sends the data in the URL
- Post: Sends the data in the body of the request

Data look like:

Client Request

```
GET /process_form.php?name=John
```

```
POST /process_form.php
```

Data (key-value pairs)

```
name=John
```

Server Response

Common Form Widgets (Elements)

- `<input>` : Input (text, password, email, number, etc.)
- `<select>` : Select (dropdown menu)
- `<textarea>` : Textarea (large text field)
- `<button>` : Button (submit, reset, etc.)
- `<checkbox>` : Checkbox (multiple choice)
- `<radio>` : Radio (single choice)
- `<submit>` : Submit (submit the form)
- `<reset>` : Reset (reset the form)

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Let's build a social media app

Starter code at: github.com/Web-Engineering-KFUPM/2.2_social_media_app

Next Class

- Basics of CSS