HTML Forms

INFO 253A: Frontend Web Architecture
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What is a form (on-line)?

SurveyMonkey Form
Forms are everywhere

- Combining forms with JavaScript makes a site interactive
- Google Search
Forms are HTML

- Declarative
- Standardized
- Semantic
- Styled
Input Tag

- Signals we'd like to get data from the user
- What type of data?
- type attribute
Text Input Type

1  <form>
2   <input type="text" />
3  </form>
Submit Type

```html
<input type="submit" />
```
CheckBox Type

```html
<input type="checkbox" checked="checked" />
```
What does these form elements mean?

- Just add text next to the box
- Add an attribute to the tag
- Add text in a `<span>` or `<p>`
- Add text in a `<label>` element that "references" the input
CheckBox Type

1. `<input type="checkbox" value="enrolled" id="check-enrolled" checked>`
2. `<label for="check-enrolled">Enrolled?</label>`
Radio Type

1. `<input type="radio" name="mascot" value="bear" id="radio-bear">`
2. `<label for="radio-bear">Bear</label>`
3. `<input type="radio" name="mascot" value="cardinal" id="radio-cardinal" />`
4. `<label for="radio-cardinal">Cardinal</label>`
Select Type

1 <label for="state">State:</label>
2 <select name="state" id="state">
3     <option value="CA">CA</option>
4     <option value="OR">OR</option>
5     <option value="NY">NY</option>
6 </select>
Hidden Type

1 <input type="hidden" name="page" value="2">
HTML5 types

- color, tel, email, datetime, url
- Provides validation as well as default styling
- HTML5 Reference

```html
1 <label for="color">Color: </label>
2 <input type="color" name="color" id="color" />
3 <br />
4 <label for="email">Email: </label>
5 <input type="email" name="email" />
```
Let's look at a complete form

```html
<form method="GET" action="http://www.google.com/search">
  <input type="text" name="q" value=""/>
  <input type="submit" value="Google Search"/>
</form>
```
Form Design

- Goal: make it easy to provide information
- Use the appropriate input elements
- Use CSS to style elements to better set context
User Interface Differences
Example Search Widget

- Github!
Overview

```html
<form action="/login">
  <input type="text" name="username"/>
  <input type="password" name="password"/>
  <input type="submit"/>
</form>

POST /login HTTP/1.1
Host: www.mysite.com
User-Agent: Mozilla/4.0
Content-Length: 27
Content-Type: application/x-www-form-urlencoded

username=ilovecats&password=secret

HTTP/1.1 200
Content-Type: text/html
Content-Length: 73

<html>
  <body>
    <p>Welcome back ilovecats!</p>
  </body>
</html>

Web Server
with
Server Side Language
Improvements (browser side)

- Interactivity!
- Give users instant feedback
- Use content in forms immediately on the browser
JavaScript!

- Write imperative style code specific to your site
- No interaction with a server required
- Run by the browser
Questions?