ECS 89

4/21

Announcements

HTML Forms

□ Form provided by Jesse's beginning of the app

```
▼ <body>
  ▼ <form method="get" action="add_data.html" name="input">
      <label for="steps">Steps</label>
      <input type="number" min="0" name="steps">
      <input type="submit" value="Submit">
    </form>
```

The form element

```
<form action="http://www.google.com/search">
  <div> Let's search Google:
    <input name="q" />
    <input type="submit" />
  </div>
</form>
```

□ The form element contains all the boxes, buttons, etc.

□ The action attribute specifies the URL to which the data will be sent.

HTTP get method

```
<form action="http://pc110.cs.ucdavis.edu:10002/hw2/
  index.html" method="get">
```

□ method="get"
  ◘ The default
  ◘ Data gets sent in the URL itself
  ◘ Limited size
  ◘ Convention (that we are breaking): use for getting information from server, not changing information on server

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HTTP post method

```
<form action="http://pc110.cs.ucdavis.edu:10002/hw2/
  index.html" method="post">
```

□ method="post"
  ◘ Data gets sent in HTTP request, after the header
  ◘ Unlimited size
  ◘ Use for big things like text boxes
  ◘ Usually for all information changing server state

Input elements

□ Used for short strings, numbers, buttons, checkboxes, dates, the final submit button, other stuff...

□ name attribute specifies the variable name that will show up in wsgi date

□ Only one in a group of radio buttons can be on, so they all have the same name attribute

□ See example!

Couple more form elements..

□ <textarea> element is used to enter large chunks of text.

□ For drop-down menus, use the <select> element, with <option> elements inside it.

Labels

□ Lets you link the label to the form element, for styling mostly.

□ Put the label text, and the form element, together inside a <label></label> element.

Validating elements

□ You can add a pattern attribute to input numbers and text.

□ This lets the browser check the data.

□ You still need to check the data when it gets to the server! Otherwise some malicious client could send bad data and get it into the database!

Patterns

□ These are regular expressions, in Javascript syntax.

□ Hello matches Hello

□ Hello|Goodbye matches either one

□ [GATC] matches any of G, A, T, or C

□ [0-9] matches any digit

□ [a-z]|[A-Z] matches any letter

□ [0-9]+ is a string of one or more digits

HTML5 form validation

□ What features are supported varies with browser

□ eg. Firefox does not support number max and min but does support pattern

□ Older browsers support nothing

□ In general, input validation is done using Javascript in the browser (for immediate user feedback) AND on the server (to prevent unexpected browser requests from corrupting the database).