FORMS

Without using JS, there are two basic forms of interaction on the web:

- Following links (`<a href="SOME_URL">` tags)
- Submitting data via forms

Let's look at that second case

BASIC HTML TAGS FOR FORMS

```html
<form action="SOME_URL" method="GET">
  <label>N: <input name="field" placeholder="try it"/></label>
  <input type="password" name="otherField" value="demo"/>
  <input type="checkbox" name="checkField" checked/>
  <input type="radio" name="radioField" value="One"/>
  <input type="radio" name="radioField" value="Two"/>
  <select name="selectField">
    <option value="1">One</option>
    <option value="2">Two</option>
  </select>
  <button type="submit">Try it</button>
</form>
```

THE FORM TAG

```
<form action="SOME_URL" method="GET">...</form>
```

- `action` of a form is the url to submit to.
    - fully qualified or a relative or absolute path
    - No url means same page
- `method` is normally GET or POST
    - We'll cover these when we get to HTTP methods
    - GET will send query params in url
    - POST will send params in body of request, not in URL

SUBMITTING

- `<button type="submit">...</button>`
- `<input type="submit">...</input>`
- On most browsers: If no submit button defined, use first button
    - Don't Rely On This

The data from the form is submitted to the `action` url.

The `name` props of the fields will be the keys

- spaces become + or %20. Special characters will be encoded in hex with % (like %20 being a space)

PASSWORD FIELDS

Password fields are NOT secure - they visually hide the text on display, but transmit the data in the clear.

CHECKBOXES

- Send a value of "on" if checked (by default)
- Will not send a value, or even a field name, if not checked

RADIO BUTTONS

- Only one of the same `name` can be selected at a time
- Will send the value of the selected one as the value of the name/value pair
- Will not send any value (or even the name) if none of the radio buttons of the name are selected

SELECT (DROPDOWN)

- Shows the CONTENT of the option tag on screen
- Sends the VALUE of the option tag
- value defaults to content
    - Don't do this - always set a value
    - Separate the appearance from the data
        - You can change the appearance/wording without breaking your data
- Defaults to first option unless one has `selected`

LABEL

`label` tags allow you to "click" the label as selecting the element

Adds semantic value (connects label to a related field)

label tags auto connect to a child input element

- You can connect them when separate, but requires an id of the element to connect them to
    - You often don't want to have many ids

SUMMARY - FORMS

- Direct web navigation is through **links** or **forms**
- Forms send a request to a specified url
    - Full url, Absolute path, or Relative path
    - Sent as **GET** or **POST** HTTP requests
    - Browser renders the page in the response
- Data for **GET** is sent in url
    - Data is **url-encoded** to remove most special characters or spaces
- Data for **POST** is sent in the body

SUMMARY - FORM HTML

- HTML describes the input fields for a form
    - `name` is the data field name attribute
    - `value` is the data field value attribute
- `<label>` tags can wrap their related content
    - or use the `for` attribute along with the `id` of the related tag
- Use CSS to ensure layout/appearance
    - browsers can be inconsistent
- Typing on the form is all IN THE BROWSER
    - Server only knows anything when you submit