HTML Forms

- fundamental interaction
- receive input from users
- direct users to serve relevant data

The form tag

- defines the boundary of interactive form elements

- a container

- has form-specific attributes

```
<body>
  <form form-attributes >
    form-content
  </form>
</body>
```

Form attributes

- `action`: what to do with the form data

```
<form action="target_page">
  form-content
</form>
```

Form attributes

- `method`: method to submit data

- `enctype`: encoding to submit data

- `autocomplete`: user might auto complete

- `novalidate`: validation is not necessary

Form contents

- form elements
- any other element to be shown

Form elements

- `input`: a field that users can enter data

```html
<form action="target_page">
  <input />
</form>
```

Input types

- `text`
- `email`
- `password`
- `time`
- `date`
- `file`, `color`, `range`
- `radio`, `checkbox`
- `submit`, `button`, `image`
- …

Input examples: email

```html
<form action="target_page">
  <input type="email" width="30" />
</form>
```

Input examples: button

```html
<form action="target_page">
  <input type="button" value="Click me" />
</form>
```

Input examples: checkbox

```html
<form action="target_page">
  <input type="checkbox" checked="true" />
</form>
```

Input examples: file

```html
<form action="target_page">
  <input type="file" accept=".jpg" />
</form>
```

Label tag

- labels any form element

- uses `for` attribute to relate target element's `id`

```
<form action="target_page">
  <label for="psswd">Enter password</label>
  <input type="password" id="psswd" />
</form>
```

Select and Option tags

- define options that could be selected

- `select` contains `option`s

```html
<form action="target_page">
  <label for="students">Choose student</label>
  <select id="students">
    <option value="150210123">Ali Can</option>
    <option value="150210456">Veli Kan</option>
    <option value="150210789">Cavi Dan</option>
  </select>
</form>
```

Textarea tag

- defines multi-line text input area

```
<form action="target_page">
  <label for="prgrph">Enter your comments</label>
  <textarea id="prgrph" rows="5" cols="40">
    Initial text
  </textarea>
</form>
```

Button tag

- defines a button

```html
<form action="target_page">
  <label for="bttn">Knock knock</label>
  <button id="bttn"
          onclick="alert('Hello. Is there anybody out there?')"
  >
    Just nod if you can hear me.
  </button>
</form>
```

Output tag

- Outputs a calculated result

```
<form action="target_page"
      oninput="result.value=(parseInt(celsius.value)*1.8)+32"
>
  <label for="cel">Enter temperature in Celsius</label>
  <br />
  <input id="cel" type="number" name="celsius" value="0" /> ºC
  <br />
  <output name="result" for="celsius"></output> ºF
</form>
```

Form actions

- Forms collect user data

- Data is sent to a server

- Server has the logic to handle data

- Server responds wrt data

```html
<form action="http://url.com/respondingPage.php">
  <label for="usrnm">Enter username</label>
  <input type="email" id="usrnm" name="user-email" />
  <label for="psswd">Enter password</label>
  <input type="password" id="psswd" name="user-password" />
</form>
```