CS637 Class 2

We are looking at slides from
HTML and CSS: Design and Build Websites by Jon Duckett

Slides are posted on the class website, protected by a password written on the board

Note: Exams are open-print-books, no laptops, no cell phone use (at your seat), so get a print copy of this book if you want to use it for exams.

If you must take a phone call during an exam, bring the phone to the front of the class.
WRITING LINKS

<a href="http://www.imdb.com">IMDB</a>
WRITING LINKS

THE PAGE THE LINK TAKES YOU TO

<a href="http://www.imdb.com">IMDB</a>
WRITING LINKS

THE PAGE THE LINK TAKES YOU TO

<a href="http://www.imdb.com">IMDB</a>

THE TEXT THE USER CLICKS ON
<a href="http://www.empireonline.com">Empire</a>
Empire
LINKING TO OTHER PAGES ON THE SAME SITE

<a href="index.html">Home</a>

<a href="about.html">About</a>

<a href="movies.html">Movies</a>

<a href="contact.html">Contact</a>
• Home
• About
• Movies
• Contact
RELATIVE URLS

- examplearts
  - index.html
- movies
  - cinema
    - index.html
    - listings.html
    - reviews.html
  - dvd
    - index.html
    - listings.html
    - reviews.html
- music
  - index.html
  - listings.html
  - reviews.html
- theater
  - index.html
  - listings.html
  - reviews.html
RELATIVE URLS

SAME
reviews.html
RELATIVE URLs

SAME
reviews.html

CHILD
music/index.html
RELATIVE URLS

SAME
reviews.html

CHILD
music/index.html

PARENT
../index.html
RELATIVE URLS

SAME
reviews.html

CHILD
music/index.html

PARENT
../index.html

GRANDCHILD
movies/dvd/index.html
RELATIVE

URLS

SAME
reviews.html

CHILD
music/index.html

PARENT
../index.html

GRANDCHILD
movies/dvd/index.html

GRANDPARENT
../../index.html
<a href="mailto:jon@example.org">Email Jon</a>
<a href="mailto:jon@example.org">Email Jon</a>
Film-Making Terms

Arc Shot
Interlude
Prologue

Arc Shot
A shot in which the subject is photographed by an encircling or moving camera

Interlude
A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film
Film-Making Terms

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Arc shot

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Arc Shot
A shot in which the subject is photographed by an encircling or moving camera

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A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film
LINKING TO A SPECIFIC PART OF THE SAME PAGE

<h1 id="top">Film-Making Terms</h1>

<a href="#arc-shot">Arc shot</a><br />
<a href="#interlude">Interlude</a><br />
<a href="#prologue">Prologue</a><br />

<h2 id="prologue">Prologue</h2>

<a href="#top">Top</a>
<h1 id="top">Film-Making Terms</h1>

<a href="#arc-shot">Arc shot</a><br />
<a href="#interlude">Interlude</a><br />
<a href="#prologue">Prologue</a><br />
...

<h2 id="prologue">Prologue</h2>
Prologue</h2>
<a href="#top">Top</a>

Arc Shot
A shot in which the subject is photographed by an encircling or moving camera

Interlude
A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film

Prologue
A speech, preface, introduction, or brief scene preceding the main action or plot of a film; contrast to epilogue
Film-Making Terms

Arc Shot
Interlude
Prologue

Arc Shot
A shot in which the subject is photographed by an encircling or moving camera

Interlude
A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film

Prologue

Top
Images can set the tone for a site in less time than it takes to read a description.
Images are subject to copyright but there are stock photography sites where you can buy them.
CHOOSING IMAGES FOR YOUR SITE

If a page shows several photos of products or members of a team, keep them consistent.
STORING IMAGES ON YOUR SITE
<img src="images/quokka.jpg" alt="A family of quokka" title="The quokka is an Australian marsupial that is similar in size to the domestic cat" />
Book examples: this page online
After right-click (not on image), View Source we can see the HTML for the page.

This is using Chrome, but this can be done in any desktop browser. Chrome on smartphone: need to use URL view-source:http://whatever
<img src="images/quokka.jpg" alt="A family of quokka" title="The quokka is an Australian marsupial that is similar in size to the domestic cat" width="600" height="450" />
Resizing

• Although browsers will resize images as specified by width and height, it’s not a great idea to use it.

• Can end up with distorted or fuzzy images.

• Better to make another right-size image using a graphics editor and use that.
How a page with an image gets displayed

• In this case, the user selects the page as usual
• The browser does a GET request to the server
• The server sends the HTML page with the <img>…
• The browser receives the HTML, parses the <img> URL, and issues another GET request for the image data (no user involvement here)
• The server sends the image data back
• The browser shows the completed page to the user
• This means two complete “request cycles” to the server
• We can make a chart showing this communication…
Communications Diagram: page with `<img>` (time flows down in diagram)

1. User: requests `.html` page via browser.
2. Server: sees GET `/...page.html`, Returns HTML on same connection.
3. Browser: parses page, sees `<img>`, requests image data.
5. User: sees finished page.
Chrome can show details on the two requests.

Use right-click, inspect, choose Network tab, reload page.
One page can involve many HTTP requests (from last class)

From https://developer.mozilla.org/en-US/docs/Web/HTTP/Overview
There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Man species undertake long distance annual migrations, and many more perform shorter irregular journeys.
There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.
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There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.
<img> is “inline”

• Now we look at cases where the <img> element lies inside the <p> element.
• <p> is a block element, starts a new line
• <img> Image is an inline element, keeps going on the current line
• Other block elements: <h1>, <ul>, <li>, …
• Other inline elements: <em>, <a>, <strong>
There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.
There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

http://htmlandcssbook.com/codesamples/chapter-05/where-to-place-images.html
“OLD CODE”

• In the next few slides and in Duckett, “OLD CODE” means pre-HTML5

• In HTML5, we use CSS to arrange non-default positioning

• Skip “OLD CODE” for this class, but note it could be useful for working with older HTML.

• We should revisit these examples once we’ve tackled CSS.
There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Man species undertake long distance annual migrations, and many more perform shorter irregular journeys.
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Example image

• See [http://htmlandcssbook.com/code-samples/chapter-05/adding-images.html](http://htmlandcssbook.com/code-samples/chapter-05/adding-images.html)

• HTML:
  ```html
  <body>
    <img src="images/quokka.jpg" alt="Quokka (Setonix brachyurus)" />
  </body>
  ```

• Note how it stays the same size while you resize the page. It shows in 600x450 screen pixels.

• On my laptop, 600 px width = 50% of screen width

• Right-click on image in Chrome, Inspect, to see its dimensions.
Pixels

- Each digital image has a grid of pixels, written as width x height, for example 600x450
- Each screen has “resolution” width x height pixels
  - My laptop: 1280x800
  - My desktop (20” “two-page” monitor): 1920x1080
  - iPhone 5: 1136x640, … iPhone X: 2436x1125 … iPhone 8: 1334x750
  - Samsung S4: 1080x1920, … S8 2960x1440
  - Many old phones: 854x480
- We can expect about 1000 pixels across to work with
- In particular, the 600x450 image fits on any of these
- See pp. 377-378 for more examples.
Create each image the same width and height as you would like it to appear on your website.
<figure>
   <img src="images/otters.gif"
       alt="Photograph of two sea otters floating in the water" />
   <br />
   <figcaption>Sea otters hold hands when they sleep so that they don’t drift away from each other.
   </figcaption>
</figure>
<figure>
  <img src="images/otters.gif"
       alt="Photograph of two sea otters floating in the water" />
  <br />
  <figcaption>Sea otters hold hands when they sleep so that they don’t drift away from each other.</figcaption>
</figure>
Sea otters hold hands when they sleep so that they don’t drift away from each other.
Sea otters hold hands when they sleep so they don't drift away from each other.
**WHAT'S A TABLE?**

---

### Benefits

<table>
<thead>
<tr>
<th>Item</th>
<th>Premier</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary fees for stress and injury</td>
<td>£1,000 a year</td>
<td>£4,000 a year</td>
</tr>
<tr>
<td>- Premier Visit</td>
<td>£300</td>
<td>£300</td>
</tr>
<tr>
<td>- Prescription food</td>
<td>£200</td>
<td>£200</td>
</tr>
<tr>
<td>- Complementary treatments</td>
<td>£1,000</td>
<td>£1,000</td>
</tr>
<tr>
<td>- Loss for each miscarriage</td>
<td>£1,000</td>
<td>£1,000</td>
</tr>
<tr>
<td>- Accidental death due to illness</td>
<td>£1,000</td>
<td>£1,000</td>
</tr>
<tr>
<td>- Premature delivery</td>
<td>£700</td>
<td>£700</td>
</tr>
<tr>
<td>- Vet fees for up to age 8</td>
<td>£1,500</td>
<td>£1,500</td>
</tr>
<tr>
<td>- Third party liability (dogs only)</td>
<td>£1,500</td>
<td>£1,500</td>
</tr>
<tr>
<td>- Holiday cancellation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- Quarantine costs</td>
<td>£5,000</td>
<td>£5,000</td>
</tr>
</tbody>
</table>

---

### Cover you can depend on

<table>
<thead>
<tr>
<th>Zone</th>
<th>Adult fares</th>
<th>Pay as you go</th>
<th>Off-Peak*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1 only</td>
<td>£2.00</td>
<td>£1.70</td>
<td></td>
</tr>
<tr>
<td>Zones 1-2</td>
<td>£2.20</td>
<td>£2.00</td>
<td></td>
</tr>
<tr>
<td>Zones 1-3</td>
<td>£2.80</td>
<td>£2.40</td>
<td></td>
</tr>
<tr>
<td>Zones 1-4</td>
<td>£3.30</td>
<td>£3.10</td>
<td></td>
</tr>
<tr>
<td>Zones 1-5</td>
<td>£4.20</td>
<td>£4.00</td>
<td></td>
</tr>
<tr>
<td>Zones 1-6</td>
<td>£5.20</td>
<td>£4.90</td>
<td></td>
</tr>
<tr>
<td>Zones 2, 3, 4, 5, or 6</td>
<td>£1.50</td>
<td>£1.30</td>
<td></td>
</tr>
<tr>
<td>Zones 2-3, 3-4, 4-5, or 5-6</td>
<td>£1.90</td>
<td>£1.50</td>
<td></td>
</tr>
<tr>
<td>Zones 2-4, 3-5, or 4-6</td>
<td>£2.30</td>
<td>£1.70</td>
<td></td>
</tr>
<tr>
<td>Zones 2-5 or 3-6</td>
<td>£2.90</td>
<td>£2.00</td>
<td></td>
</tr>
<tr>
<td>Zones 2-6</td>
<td>£3.40</td>
<td>£2.20</td>
<td></td>
</tr>
</tbody>
</table>

*Peak Oyster single fares apply from 0630 to 0930 and from 1600 to 1900 Monday to Friday (excluding public holidays).

*Off-Peak Oyster single fare applies at all other times.
```
<table>
  <tr>
    <td>15</td>
    <td>15</td>
    <td>30</td>
  </tr>
  <tr>
    <td>45</td>
    <td>60</td>
    <td>90</td>
  </tr>
</table>
```
15 15 30
45 60 45
<table>
<thead>
<tr>
<th></th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tickets</td>
<td>120</td>
<td>135</td>
</tr>
</tbody>
</table>
Saturday  Sunday
Tickets sold: 120  135
<table>
<thead>
<tr>
<th>Monday</th>
<th>Geography</th>
<th>Math</th>
<th>Art</th>
</tr>
</thead>
</table>

**SPANNING COLUMNS**
<table>
<thead>
<tr>
<th></th>
<th>9am</th>
<th>10am</th>
<th>11am</th>
<th>12am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Geography</td>
<td>Math</td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Rowspan</td>
<td>Column 1</td>
<td>Column 2</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>-----------</td>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td>6pm - 7pm</td>
<td>2</td>
<td>Movie</td>
<td>Comedy</td>
<td></td>
</tr>
<tr>
<td>7pm - 8pm</td>
<td></td>
<td>Sport</td>
<td>Current Affairs</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Program 1</td>
<td>Program 2</td>
<td>Program 3</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>6pm - 7pm</td>
<td>Movie</td>
<td>Comedy</td>
<td>News</td>
<td></td>
</tr>
<tr>
<td>7pm - 8pm</td>
<td>Sport</td>
<td>Current Affairs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 7
FORMS
WHY FORMS?
FORM CONTROLS

ADDING TEXT:
- Text input (single-line)
  - Ivy
- Password input
- Text area (multi-line)
  - Enter your comments...

MAKING CHOICES:
- Radio buttons
  - Rock
  - Pop
  - Jazz
- Checkboxes
  - iTunes
  - Last.fm
  - Spotify

SUBMITTING FORMS:
- Submit buttons
- Image buttons

UPLOADING FILES:
- File upload
- Browse...
HOW FORMS WORK

1: User fills in form and presses button to submit info to server

VOTE FOR YOUR FAVORITE JAZZ MUSICIAN OF ALL TIME

Username: Ivy

I vote for: ○ Ella Fitzgerald
 ○ Herbie Hancock
 ○ John Coltrane
 ○ Miles Davis
 ○ Thelonius Monk

SUBMIT
HOW FORMS WORK

VOTE FOR YOUR FAVORITE JAZZ MUSICIAN OF ALL TIME

Username: Ivy

I vote for:
- Ella Fitzgerald
- Herbie Hancock
- John Coltrane
- Miles Davis
- Thelonious Monk

Submit

2: Name of each form control sent with value user entered
HOW FORMS WORK

3: Server processes information using programming language
HOW FORMS WORK

4: Server creates new page to send back to the browser based on info received

Thank you, Ivy!

You voted for Herbie Hancock.
username=Ivy
NAME & VALUE PAIRS

NAME

username=Ivy
NAME & VALUE PAIRS

username = Ivy
Name-value pairs sent to server

- HTTP GET: in URL query string

    GET /webapp/program?username=Ivy HTTP/1.0
    … headers

- HTTP POST: in the body of the request:

    POST /webapp/program
    … headers
    … encoded name-value pairs

Note: HTTP POST is the usual way to send in form data, as we will see.
Communications Diagram: simple form handling (time flows down in diagram)

1. User: requests form page via browser

2. Server: sees GET /…form.html, returns form.html on same connection

3. User: fills in form
   Browser: puts user input into params in POST request

4. Server: sees POST /…/doit.php
   Get user input from params, do requested action, compose response, return it in same connection.

5. User: sees response
<form
    action="http://example.com/join.php"
    method="get">

    This is where the form controls will appear.

</form>
<form action="http://example.com/join.php">
  <input type="text" name="username" size="15" maxlength="30" />
</form>
<form action="http://example.com/join.php">

<input type="text" name="username" size="15" maxlength="30" />

</form>
<form action="http://example.com/join.php">

<input type="text" name="username" size="15" maxlength="30" />

</form>
<form action="http://example.com/join.php">
  <input type="text" name="username" size="15" maxlength="30" />
</form>
<form action="http://example.com/join.php">

<input type="text" name="username" size="15" maxlength="30" />

</form>
Username: 
<p>Username:  
   <input type="text" name="username" size="15" maxlength="30" />
</p>

<p>Password:  
   <input type="password" name="password" size="15" maxlength="30" />
</p>
Username: Ivy
Password: .........
<p>What did you think of this gig?</p>

<textarea name="comments"
cols="20" rows="4">
Enter your comments...
</textarea>
What did you think of this gig?

Enter your comments...
Your favorite genre:

- [ ] Rock
- [ ] Pop
- [ ] Jazz

RADIO BUTTON
Your favorite genre:<br />

<input type="radio" name="genre" value="rock" checked="checked" /> Rock

<input type="radio" name="genre" value="pop"  /> Pop

<input type="radio" name="genre" value="jazz" /> Jazz

</p>
Your favorite genre:

- [ ] Rock
- [ ] Pop
- [ ] Jazz
Your favorite genre:

- [ ] Rock
- [ ] Pop
- [ ] Jazz
Your favorite genre:

- <input type="radio" name="genre" value="rock" checked="checked" /> Rock
- <input type="radio" name="genre" value="pop" /> Pop
- <input type="radio" name="genre" value="jazz" /> Jazz
Please select your favorite genre:

- [ ] Rock
- [ ] Pop
- [ ] Jazz
Your favorite music service:

- <input type="checkbox" name="service" value="iTunes" checked="checked" /> iTunes
- <input type="checkbox" name="service" value="Last.fm" /> Last.fm
- <input type="checkbox" name="service" value="Spotify" /> Spotify
CHECKBOX

<p>Your favorite music service:<br />
<input type="checkbox" name="service" value="iTunes" checked="checked" /> iTunes

<input type="checkbox" name="service" value="Last.fm" /> Last.fm

<input type="checkbox" name="service" value="Spotify" /> Spotify
</p>
Your favorite music service:<br />
<input type="checkbox" name="service" value="iTunes" checked="checked" /> iTunes

<input type="checkbox" name="service" value="Last.fm" /> Last.fm

<input type="checkbox" name="service" value="Spotify" /> Spotify
</p>
Your favorite music service:

- [ ] iTunes
- [ ] Last.fm
- [ ] Spotify
Your favorite music service:<br />
<input type="checkbox" name="service" value="iTunes" checked="checked" /> iTunes

<input type="checkbox" name="service" value="Last.fm" /> Last.fm

<input type="checkbox" name="service" value="Spotify" /> Spotify
Your favorite music service:

- [x] iTunes
- [ ] Last.fm
- [ ] Spotify
<select name="devices">
  <option value="iPod" selected="selected">iPod</option>
  <option value="radio">Radio</option>
  <option value="PC">Computer</option>
</select>
<select name="devices">
  <option value="iPod" selected="selected">iPod</option>
  <option value="radio">Radio</option>
  <option value="PC">Computer</option>
</select>
<select name="devices">
  <option value="iPod" selected="selected">iPod</option>
  <option value="radio">Radio</option>
  <option value="PC">Computer</option>
</select>
<select name="devices">
  <option value="iPod" selected="selected">iPod</option>
  <option value="radio">Radio</option>
  <option value="PC">Computer</option>
</select>
<select name="devices">
  <option value="iPod" selected="selected">iPod</option>
  <option value="radio">Radio</option>
  <option value="PC">Computer</option>
</select>
<select name="devices">
    <option value="iPod" selected="selected">iPod</option>
    <option value="radio">Radio</option>
    <option value="PC">Computer</option>
</select>
<select name="devices" size="4" multiple="multiple">
  <option value="guitar" selected="selected">Guitar</option>
  <option value="drums">Drums</option>
  <option value="keys" selected="selected">Keyboard</option>
  <option value="bass">Bass</option>
</select>
Guitar
Drums
Keyboard
Bass
Used as: <code>HTML</code>

FILE INPUT BOX: FYI, we won’t need this.

```html
<form action="http://eg.com/upload.php" method="post">
  
  <p>Upload your song in MP3 format:</p>
  
  <input type="file" name="user-song" />
  
  <input type="submit" value="upload" />

</form>
```
<form action="http://eg.com/upload.php" method="post">
<p>Upload your song in MP3 format:</p>
<input type="file" name="user-song" />
<input type="submit" value="upload" />
</form>
<form action="http://eg.com/upload.php" method="post">

<p>Upload your song in MP3 format:</p>

<input type="file" name="user-song" />

<input type="submit" value="upload" />

</form>
<form action="http://eg.com/upload.php" method="post">

<p>Upload your song in MP3 format:</p>

<input type="file" name="user-song" />

<input type="submit" value="upload" />

</form>
Upload your song in MP3 format:
Subscribe to our email list:

<input type="text" name="email" />

<input type="submit" value="Subscribe" />

<form action="http://eg.com/email.php">
<form action="http://eg.com/email.php">
<p>Subscribe to our email list:</p>
<input type="text" name="email" />
<input type="submit" value="Subscribe" />
</form>
<form action="http://eg.com/email.php">
  <p>Subscribe to our email list:</p>
  <input type="text" name="email" />
  <input type="submit" value="Subscribe" />
</form>
Subscribe to our email list:
<form action="http://eg.com/email.php">
  <p>Subscribe to our email list:</p>
  <input type="text" name="email" />
  <input type="image" src="images/subscribe.jpg" width="100" height="20" />
</form>
<form action="http://eg.com/email.php">
  <p>Subscribe to our email list:</p>

  <input type="text" name="email" />

  <input type="image" 
        src="images/subscribe.jpg" 
        width="100" height="20" />
</form>
<form action="http://eg.com/email.php">
  <p>Subscribe to our email list:</p>

  <input type="text" name="email" />

  <input type="image" 
    src="images/subscribe.jpg" 
    width="100" height="20" />
</form>
<form action="http://eg.com/email.php">
<p>Subscribe to our email list:</p>

<input type="text" name="email" />

<input type="image"
    src="images/subscribe.jpg"
    width="100" height="20" />

</form>
Subscribe to our email list:
Tip from www.w3schools.com:

**Note:** If you use the `<button>` element in an HTML form, different browsers may submit different values. Use `<input>` to create buttons in an HTML form. Let’s follow this rule.
HIDDEN FORM CONTROLS

And fix pg. 162: replace `<button>` with `<input>`

```html
<form action="http://eg.com/add.php">
  <button> <img src="images/add.gif" alt="add" width="10" height="20" /></button>
  <input type="image" src="images/add.gif" alt="add" width="10" height="20" />
  <input type="hidden" name="bookmark" value="lyrics" />
</form>
```
Communications Diagram: form handling
Case of form having hidden control “bookmark”

1. User: requests form page via browser

3. User: clicks button
   Browser: puts bookmark=lyrics in GET request

5. User: sees response

2. Server: sees GET /…form.html, returns form.html on same connection

   Gets bookmark value, does requested action, composes response, returns it in same connection.
LABELLING FORM CONTROLS: two ways…

```html
<form action="http://eg.com/email.php">
  <label>Age:
    <input type="text" name="Age" />
  </label>

  Gender:
  <input id="female" type="radio" name="gender" value="f" />
  <label for="female">Female</label>
  <input id="male" type="radio" name="gender" value="m" />
  <label for="female">Male</label>
</form>
```
<form action="http://eg.com/email.php">
  <label>Age:
    <input type="text" name="Age" />
  </label>
  Gender:
  <input id="female" type="radio" name="gender" value="f" />
  <label for="female">Female</label>
  <input id="male" type="radio" name="gender" value="m" />
  <label for="female">Male</label>
</form>
<form action="http://eg.com/email.php">
    <label>Age:
        <input type="text" name="Age" />
    </label>

    Gender:
    <input id="female" type="radio" name="gender" value="f" />
    <label for="female">Female</label>
    <input id="male" type="radio" name="gender" value="m" />
    <label for="male">Male</label>
</form>
<form action="http://eg.com/email.php">
  <label>Age:
    <input type="text" name="Age" />
  </label>
  Gender:
  <input id="female" type="radio" name="gender" value="f" />
  <label for="female">Female</label>
  <input id="male" type="radio" name="gender" value="m" />
  <label for="female">Male</label>
</form>
Age:  
Gender:  ○ Female  ○ Male
<fieldset>
  <legend>Contact details</legend>
  <label>Email:<br />
  <input type="text" name="email"></label>
  <br />
  <label>Mobile:<br />
  <input type="text" name="mobile"></label>
  <br />
  <label>Telephone:<br />
  <input type="text" name="tel"></label>
</fieldset>
<fieldset>
  <legend>Contact details</legend>
  <label>Email:<br />
  <input type="text" name="email"></label>
  <br />
  <label>Mobile:<br />
  <input type="text" name="mobile"></label>
  <br />
  <label>Telephone:<br />
  <input type="text" name="tel"></label>
</fieldset>
<fieldset>
    <legend>Contact details</legend>
    <label>Email:<br />
    <input type="text" name="email"></label>
    <br />
    <label>Mobile:<br />
    <input type="text" name="mobile"></label>
    <br />
    <label>Telephone:<br />
    <input type="text" name="tel"></label>
</fieldset>
HTML5: FORM VALIDATION
Add required attribute

<label for="username">Username:</label>
<input type="text" name="username" required="required" />

<label for="password">Password:</label>
<input type="password" name="password" required="required" />

<input type="submit" value="Submit" />
Username: Ivy
Password: [password field]
Submit

Please fill out this field.

online
<label for="date">Departure date:</label>

<input type="date" name="depart" id="date" />

<input type="submit" value="Submit" />
Departure date: 2011-06-27
<input type="email" name="email" />

<input type="url" name="website" />
Please enter your email address:

Please enter an email address.

Please enter your website address:

Please enter a URL.
<input type="search" name="search" placeholder="Enter keyword" />

<input type="submit" value="Search" />
online
Whenever you want to collect information from visitors you will need a form, which lives inside a `<form>` element.
Information from a form is sent in name/value pairs.
Each form control is given a name, and the text the user types in or the values of the options they select are sent to the server.
HTML5 introduces new form elements which make it easier for visitors to fill in forms.