

## 1 Form Basics

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## Reading/writing an entire file

```
URL?name=value&name=value...
```

```
http://example.com/student_login.php?username=xenia&sid=1234567
```

- **query string:** a set of parameters passed from a browser to a web server
  - often passed by placing name/value pairs at the end of a URL
- PHP code on the server can examine and utilize the value of parameters

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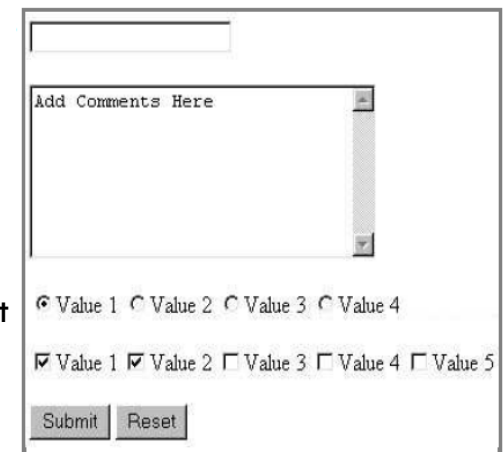
## Web Data

- Most interesting web pages revolve around data
  - examples: Google, IMDB, Digg, Facebook, YouTube, Rotten Tomatoes
  - can take many formats: text, HTML, XML, multimedia
- Many of them allow us to access their data
- Some even allow us to *submit our own new data*
- Most server-side web programs accept parameters that guide their execution

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## HTML forms

- **form:** a group of UI controls that accepts information from the user and sends the information to a web server
- the information is sent to the server as a query string



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## HTML form: <form>

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```
<form action="destination URL">  
  form controls  
</form>
```

HTML

- required action attribute gives the URL of the page that will process this form's data
- when form has been filled out and **submitted**, its data will be sent to the action's URL

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## 7 Form controls

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## Form example

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

HTML

Let's search Google:

- Wrap the form's controls in a block element such as div

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## Form controls: <input>

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```
<!-- 'q' happens to be the name of Google's required  
parameter -->  
<input type="text" name="q" value="Colbert Report" />  
<input type="submit" value="Booyah!" />
```

HTML

Colbert Report

- input element is used to create many UI controls
  - an inline element that MUST be self-closed
- name attribute specifies name of query parameter to pass to server

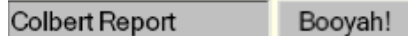
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## Form controls: <input> (cont.)

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```
<!-- 'q' happens to be the name of Google's required  
parameter -->  
<input type="text" name="q" value="Colbert Report" />  
<input type="submit" value="Booyah!" />
```

HTML



- type can be button, checkbox, file, hidden, password, radio, reset, submit, text, ...
- value attribute specifies control's initial text

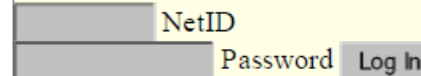
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## Text fields: <input>

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```
<input type="text" size="10" maxlength="8" /> NetID <br />  
<input type="password" size="16" /> Password  
<input type="submit" value="Log In" />
```

HTML



- input attributes: disabled, maxlength, readonly, size, value
- size attribute controls onscreen width of text field
- maxlength limits how many characters user is able to type into field

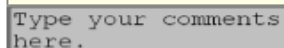
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## Text boxes: <textarea>

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```
<textarea rows="4" cols="20">  
Type your comments here.  
</textarea>
```

HTML



- initial text is placed inside textarea tag (optional)
- required rows and cols attributes specify height/width in characters
- optional read only attribute means text cannot be modified

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## Check boxes: <input>

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```
<input type="checkbox" name="lettuce" /> Lettuce  
<input type="checkbox" name="tomato" checked="checked" />  
Tomato  
<input type="checkbox" name="pickles" /> Pickles
```

HTML

- none, 1, or many checkboxes can be checked at same time

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## Radio buttons: <input>

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```
<input type="radio" name="cc" value="visa"
checked="checked" /> Visa
<input type="radio" name="cc" value="mastercard" />
MasterCard
<input type="radio" name="cc" value="amex" /> American
Express
```

HTML

- grouped by name attribute (only one can be checked at a time)
- must specify a value for each one or else it will be sent as value on

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## Drop down lists: <select>, <option>

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```
<select name="favoritecharacter">
  <option>Frodo</option>
  <option>Bilbo</option>
  <option selected="selected">Gandalf</option>
  <option>Galandriel</option>
</select>
```

HTML

- option element represents each choice
- select optional attributes: disabled, multiple, size
- optional selected attribute sets which one is initially chosen

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## Text labels: <label>

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```
<label><input type="radio" name="cc" value="visa"
checked="checked" /> Visa</label>
<label><input type="radio" name="cc" value="mastercard" />
MasterCard</label>
<label><input type="radio" name="cc" value="amex" />
American Express</label>
```

HTML

- associates nearby text with control, so you can click text to activate control
- can be used with checkboxes or radio buttons
- *label element can be targeted by CSS style rules*

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## Using: <select> for lists

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```
<select name="favoritecharacter[]" size="3"
multiple="multiple">
  <option>Frodo</option>
  <option>Bilbo</option>
  <option>Gandalf</option>
  <option>Galandriel</option>
  <option selected="selected">Aragorn</option>
</select>
```

HTML

- optional multiple attribute allows selecting multiple items with shift- or ctrl-click
- must declare parameter's *name with []* if you allow multiple selections
- option tags can be set to be initially selected

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## Option groups: <optgroup>

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```
<select name="favoritecharacter">
  <optgroup label="Major Characters">
    <option>Frodo</option>
    <option>Sam</option>
    <option>Gandalf</option>
    <option>Aragorn</option>
  </optgroup>
  <optgroup label="Minor Characters">
    <option>Galandriel</option>
    <option>Bilbo</option>
  </optgroup>
</select>
```

HTML

- What should we do if we don't like the bold italic?