

WEB DEVELOPMENT

Lecture 06 Forms

Scope

- XHTML Forms
- Form Elements
- Get and Post
- Input Controls
- Accessibility Features
- Form Layout

XHTML Forms

Forms are used to collect data from the user.

They make use of controls, such as buttons, text fields, radio buttons and drop-down lists.

They cannot process the data. This is beyond the scope of XHTML.

This is usually done on the server by programs written in PHP, or ASP, or some other language.

Form elements

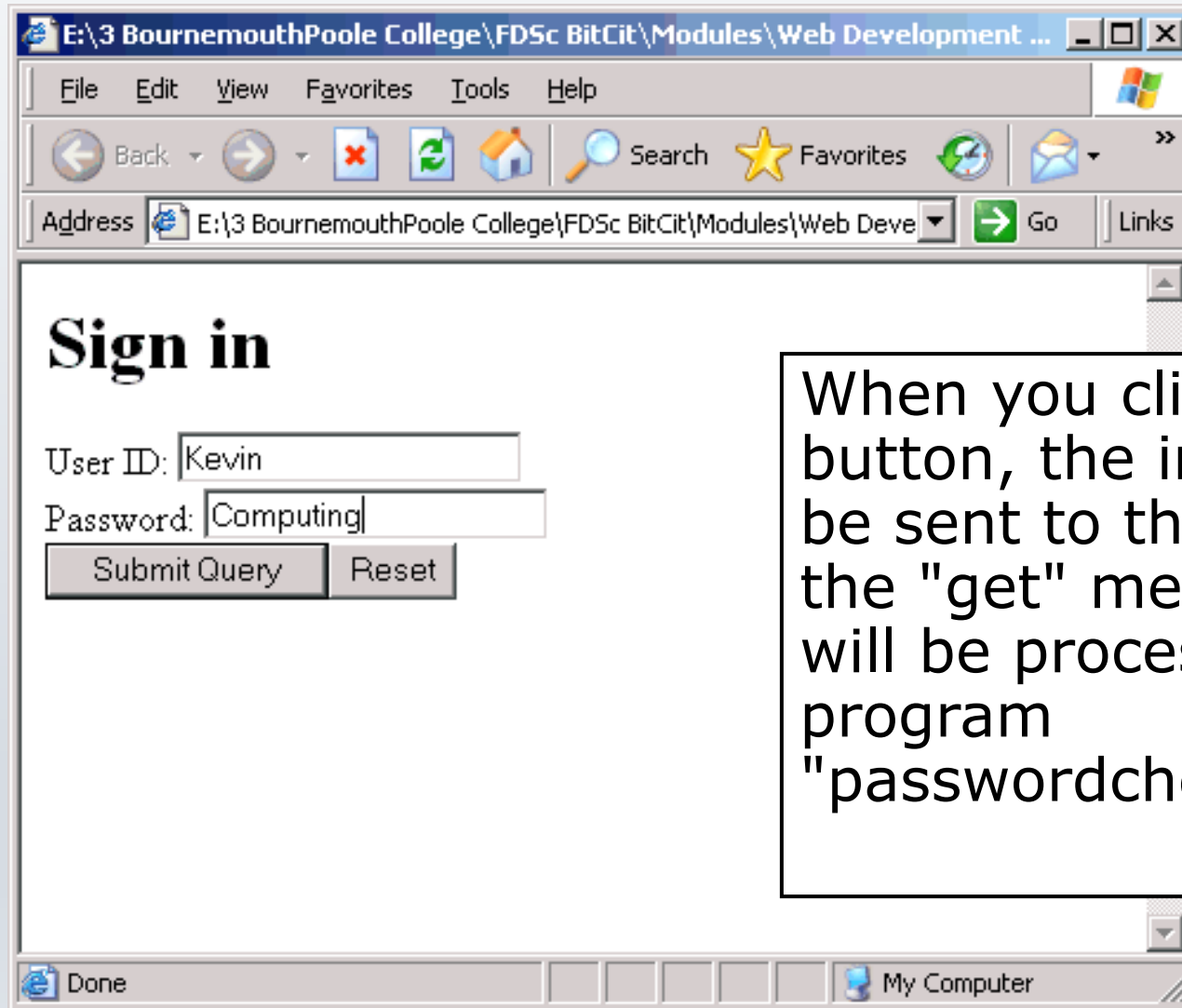
<form>	Sets up the form
<input>	Creates an input control
<button>	Creates a generic button
<textarea>	Multiline text entry control
<select>	Drop-down list control
<option>	A single entry within a select control
<optgroup>	Defines a group of options
<label>	Attaches information to controls
<fieldset>	Groups related controls
<legend>	Assigns a caption to a fieldset

Simple Example

```
<body>
<h1>Sign in</h1>
<form action="passwordchecker.php" method="get">
User ID: <input type="text" name="login" /><br />
Password: <input type="text" name="pass" /><br />
<input type="submit" value="Submit Query" />
<input type="reset" />
</form>
</body>
```

will create a simple form with two text fields, and two pre-defined buttons.

A simple form



The screenshot shows a web browser window with the title bar 'E:\3 BournemouthPoole College\FDSc BitCit\Modules\Web Development ...'. The address bar contains 'E:\3 BournemouthPoole College\FDSc BitCit\Modules\Web Deve'. The main content area displays a 'Sign in' form with the following elements:

- Sign in** (Section Header)
- User ID:
- Password:
-

The browser's status bar at the bottom shows 'Done' and 'My Computer'.

When you click the submit button, the information will be sent to the server, using the "get" method, where it will be processed by the program "passwordchecker.php".

<form> element

Has two main attributes:

action The url of the program to which the data should be sent. Default location is the webserver being used.

method One of the two methods for transmitting the data to the server. Either "get" or "post".

Difference between get and post

get

will transmit the data as part of the URL to the server.

`www.server.com/passwordchecker.php?login=Kevin&pass=Computing`

post

will transmit the data separately from the URL. It cannot be seen and can even be encrypted.

The second method is better from a security point of view.

<input> Form Controls

text	Single line text box
password	Text box which displays asterisks
checkbox	A tickbox
radio	A set of circular tickboxes – one choice
submit	A button which will transmit data
reset	A button which will clear the form
file	Allows you to send a file to the server
image	Allows you to use an image as a button
button	A generic button which can be used by a scripting language

<input type="password">

Shares with input type="text" a number of useful attributes

```
<input type="password" name="secret" size="20"  
        maxlength="50" value="Type here">
```

You can specify the size of the field, the maximum allowed length of the text and some default text.

The only difference is that the text typed in will be displayed as a set of asterisks, for security reasons.

<input type="checkbox">

```
<form action="formhandler.php" method="get">
<p>Which of the following OS have you used?</p>
```

```
<input type="checkbox" name="os" value="WinXP"
checked="checked" /> Windows XP
```

```
<input type="checkbox" name="os" value="Linux" /> Linux
```

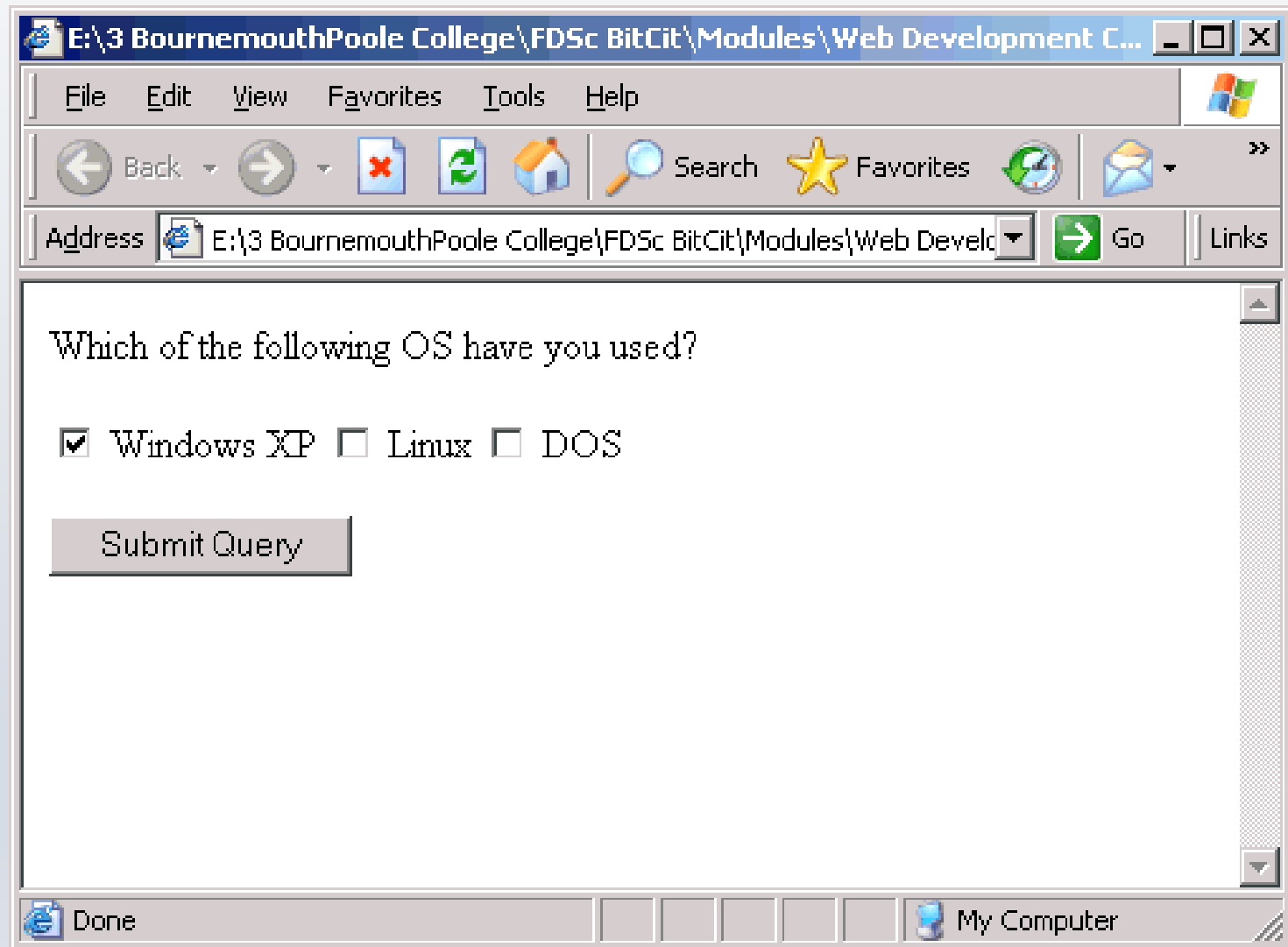
```
<input type="checkbox" name="os" value="Dos" /> DOS
```

```
<br /><br />
```

```
<input type="submit" />
```

```
</form>
```

which will show



and this will be sent to the server

`http://.../formhandler.php?os=WinXP`

if two of the checkboxes are checked, this would be sent:

`http://.../formhandler.php?os=WinXP&os=DOS`

<input type="radio">

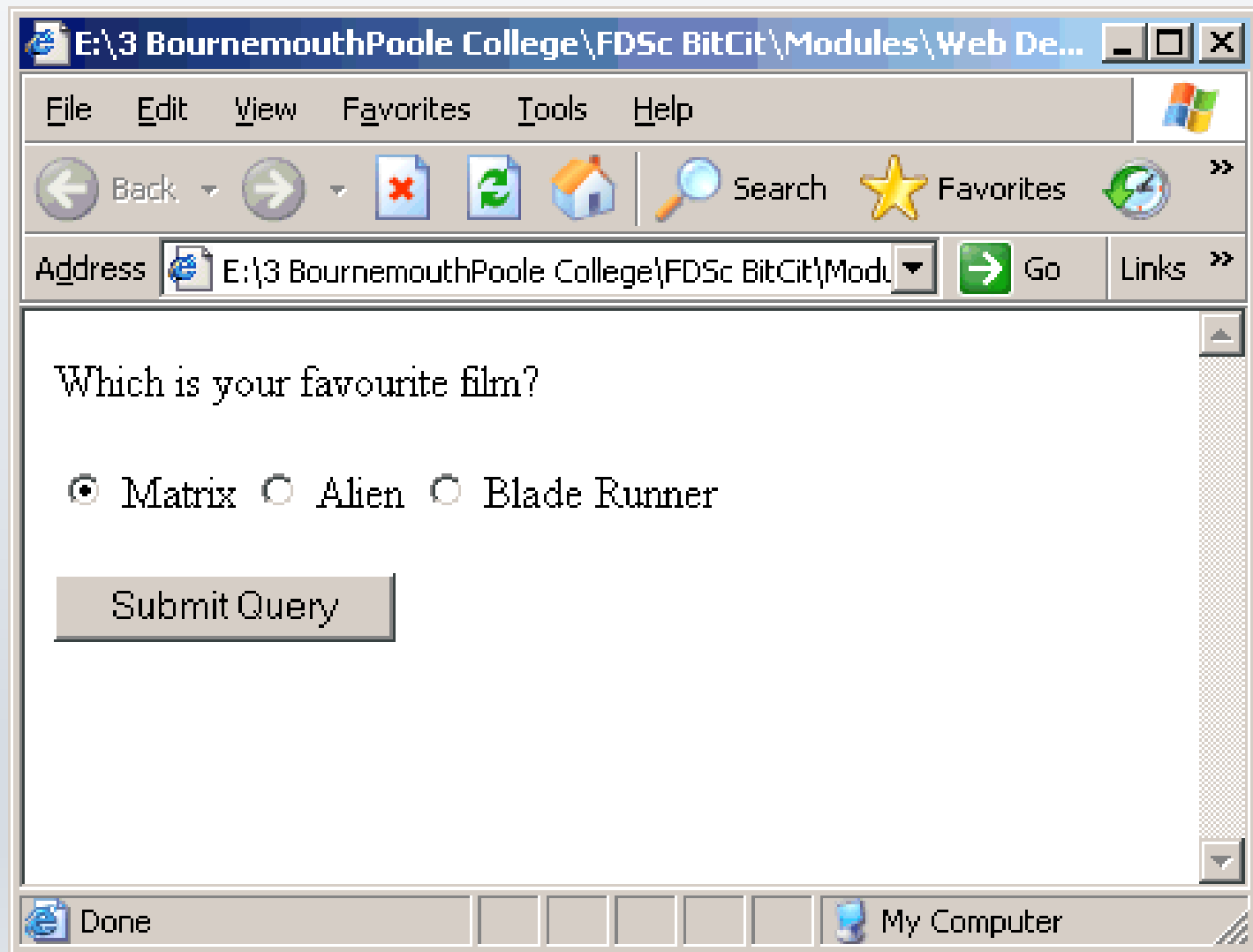
```
<form action="formhandler.php" method="get">
  <p>Which is your favourite film?</p>

  <input type="radio" name="favfilm" value="1"
        checked="checked" /> Matrix
  <input type="radio" name="favfilm" value="2" /> Alien
  <input type="radio" name="favfilm" value="3" /> Blade Runner

  <br /><br />
  <input type="submit" />
</form>
```

Only one radio button can be chosen at a time

Will give this



<select> drop down lists

```
<form action="formhandler.php" method="get">
```

```
  <select name="course">
    <option>Computing</option>
    <option>Maths</option>
    <option>Art</option>
  </select>
```

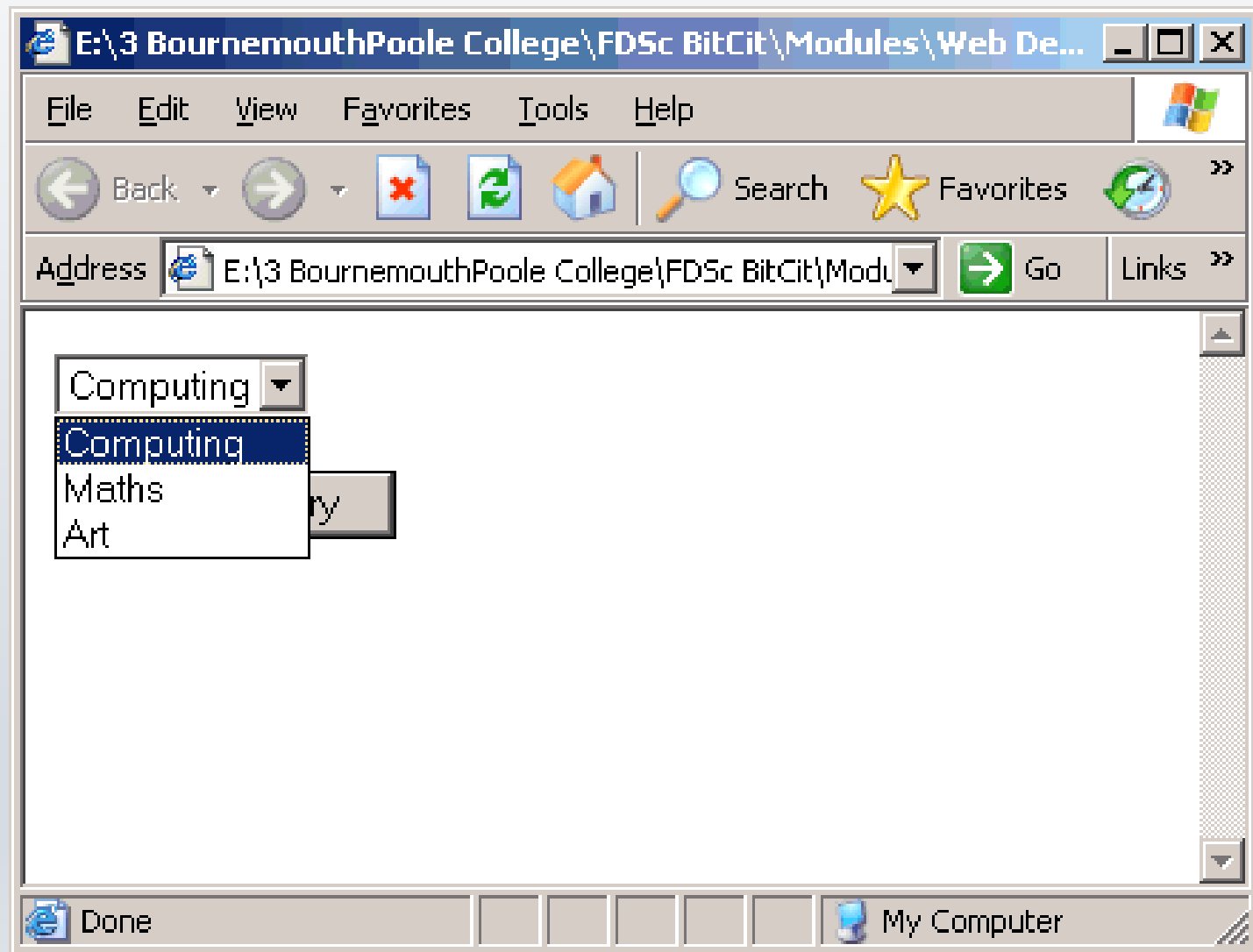
```
  <br />
```

```
  <br />
```

```
  <input type="submit" />
```

```
</form>
```


Will give this



More on <select>

Would send: `course=computing` to the server.

Normally, the list will be as long as it needs to be.

You can turn it into a scrolling list by adding the following attributes:

```
<select name="course" size="3" multiple="multiple">
```

This will add a scroll bar to the list.

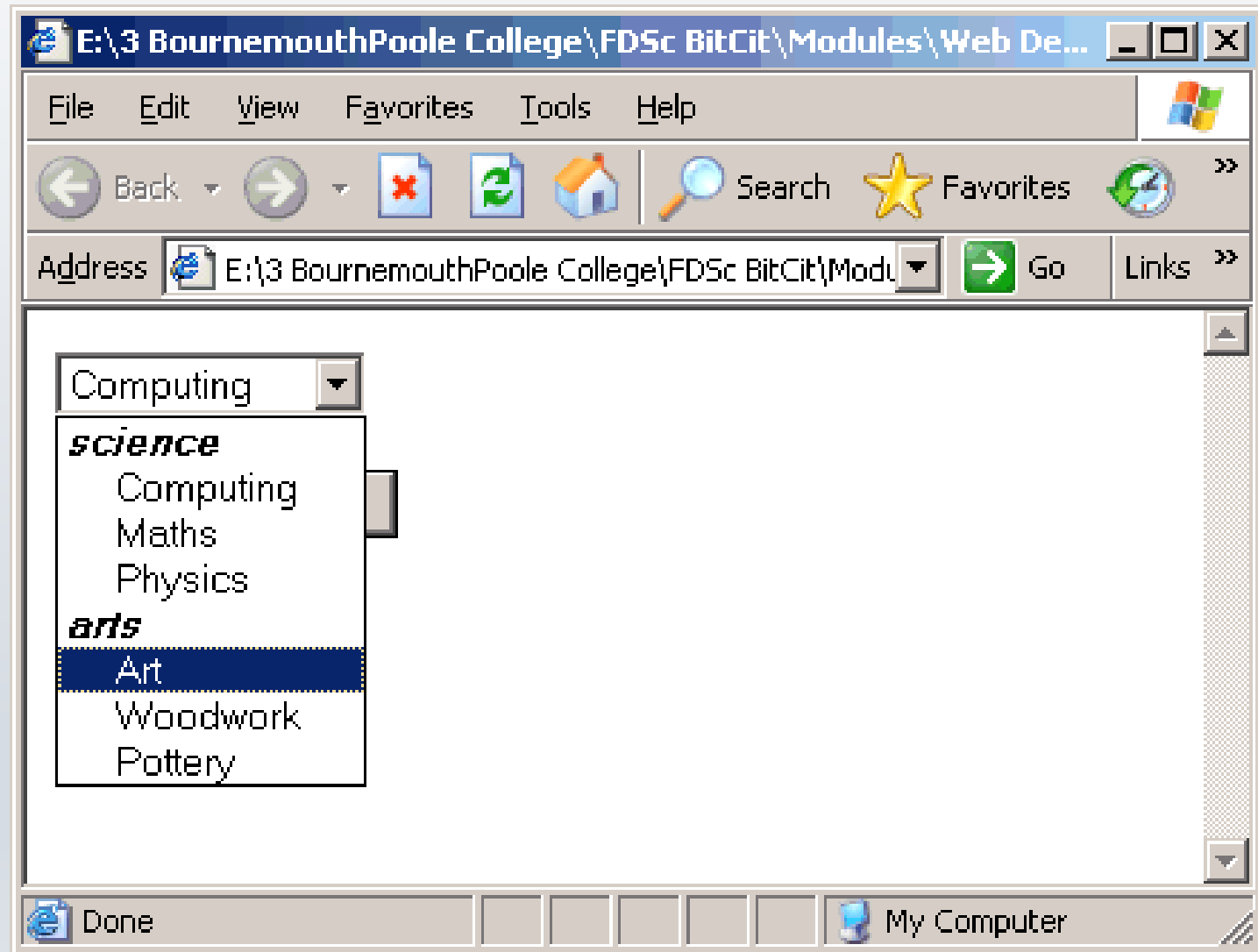
Also, you can change the default and the value sent to the server:

```
<option selected="selected">Matrix</option>  
<option value="BR">Blade Runner</option>
```

Option Groups

```
<select name="course">
  <optgroup label="science">
    <option>Computing</option>
    <option>Maths</option>
    <option>Physics</option>
  </optgroup>
  <optgroup label="arts">
    <option>Art</option>
    <option>Woodwork</option>
    <option>Pottery</option>
  </optgroup>
</select>
```

will give this



Grouping items together: <fieldset>

```
<form action="/phpfiles/passwordchecker.php" method="get">
```

```
<fieldset>
```

```
  <legend>Personal Info</legend>
```

```
  User ID: <input type="text" name="login" /><br />
```

```
  Password: <input type="text" name="Pass" /><br />
```

```
</fieldset>
```

```
<br />
```

```
<fieldset>
```

```
  <legend>Which is your favourite film?</legend>
```

```
  <input type="radio" name="favfilm" value="1"
        checked="checked" /> Matrix
```

```
  <input type="radio" name="favfilm" value="2" /> Alien
```

```
  <input type="radio" name="favfilm" value="3" /> Blade Runner
```

```
</fieldset>
```

```
</form>
```

will give this

The screenshot shows a web browser window with the following elements:

- Address Bar:** E:\3 BournemouthPoole College\FDSc BitCit\Modules\Web Developme...
Back Forward Stop Reload Home Search Favorites Links
Address: velopment C1\Presentations\Files\06 Forms\Formsfield.htm Go
- Form Content:**
 - Sign in**
 - Personal Info**
 - User ID:
 - Password:
 - Which is your favourite film?**
 - ☒ Matrix ☐ Alien ☐ Blade Runner
 - Submit Query** **Reset**
- Status Bar:** Done My Computer

Accessibility Features

To use a form control, it must have be selected and active.

It must have focus.

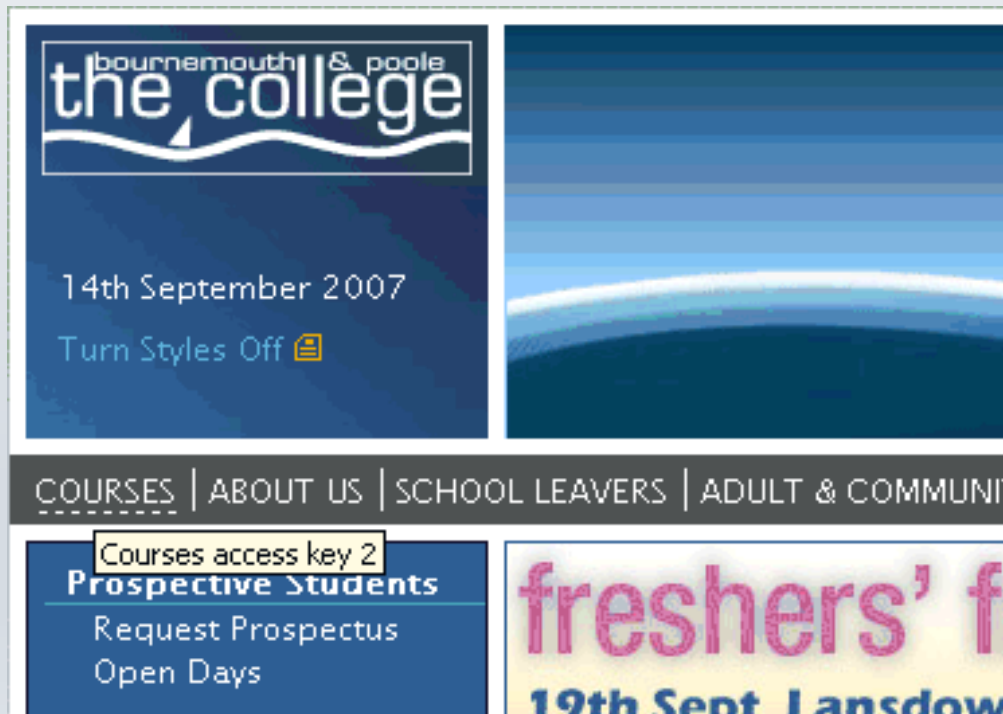
This is usually done by pointing and clicking.

There should be other ways of changing focus.

accesskey

```
<input type="text" name="address" accesskey="2">
```

will enable you to select that text box by typing Alt-2. You can also use it on other elements.



tabindex

Another way of changing focus is to use the tab key.

If you want to change the default tab order, you can use the tabindex attribute.

User ID: `<input type="text" name="login" tabindex="3"/>`

Password: `<input type="text" name="Pass" tabindex="2" />`

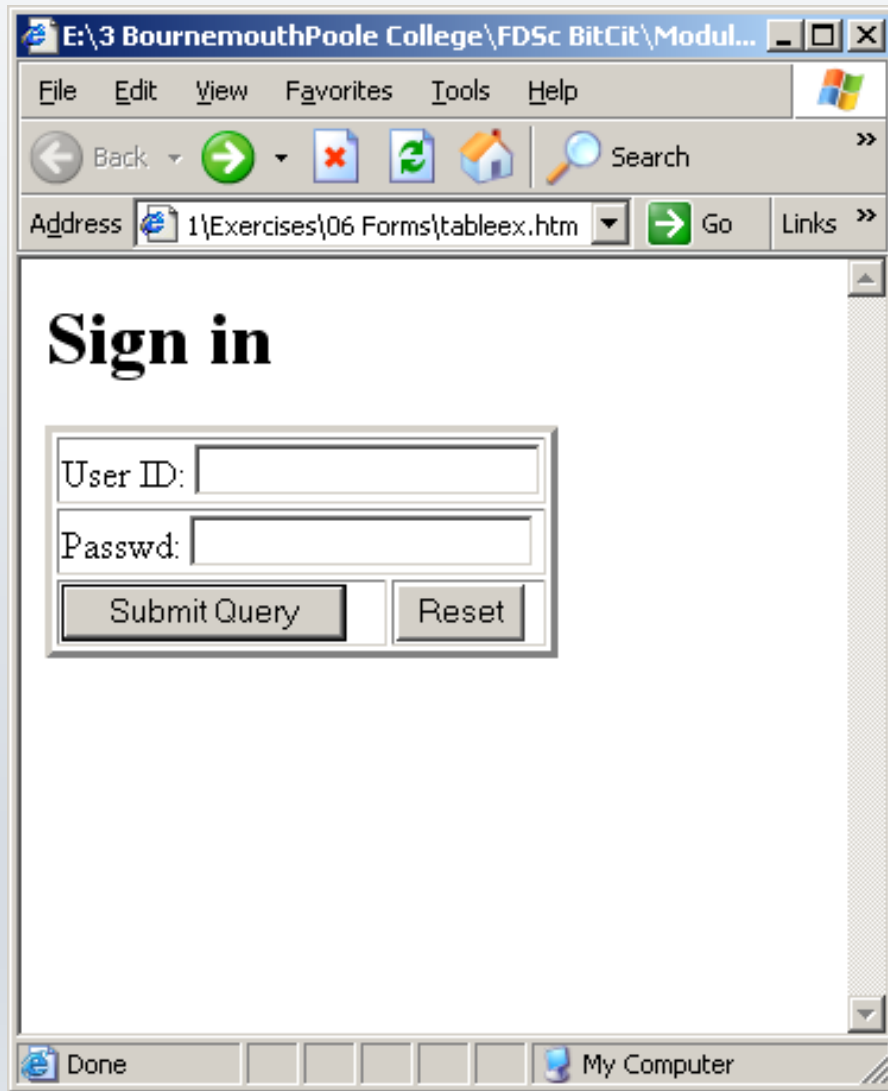
Postcode: `<input type="text" name="Postcode" tabindex="1"/>`

Form Layout

The traditional way of laying out forms, is to place the input elements inside a table.

```
<body>
<h1>Sign in</h1>
<table border="3">
  <form action="passwordchecker.php" method="get">
    <tr><td colspan="2">User ID: <input type="text" name="login" /></td></tr>
    <tr>
      <td colspan="2">Passwd: <input type="password" name="pass" /></td>
    </tr>
    <tr>
      <td><input type="submit" value="Submit Query" /></td>
      <td><input type="reset" /></td>
    </tr>
  </form>
</table>
</body>
```

will give this



You would normally set border to 0 so that all you see is the form elements.

It is also possible to use CSS to arrange the elements in a tidy way on the page.