javascript

what is javascript?
- an object-oriented programming language
- embedded in HTML
- enables you to create interactive web pages

examples
- mouseover:
- quiz:
  see [http://www.cs.ubc.ca/~hoos/cpsc101/Labs/JavaScript/wmst201quiz.html](http://www.cs.ubc.ca/~hoos/cpsc101/Labs/JavaScript/wmst201quiz.html)

mouseover

```html
<html>
<head> <title>Shelly Zhao's simple Web Page</title> </head>
<body>
<h1>Welcome to Shelly's Web Page</h1>
<p> <a onMouseOver="document.images[0].src = 'logoUBC.jpg';" onMouseOut="document.images[0].src = 'monkey.gif';"> 
 <img src="monkey.gif" align="left" hspace="0" width="80" height="100"></a></p>
</body>
</html>
```

`onMouseOver="document.images[0].src = 'logoUBC.jpg';"`

- this part of the code instructs the web browser to display the picture “logoUBC.jpg” when the mouse is moved over the first image of the html page

- images are numbered 0,1,2,...

`onMouseOut="document.images[0].src = 'monkey.gif';"

- this part of the code instructs the web browser to display the picture “monkey.gif” when the mouse is moved off the first image of the html page
<img src="monkey.gif" align="left" hspace="0" width="80" height="100">

- this is standard html code that places an image in the html page; this image appears until the first time that the mouse rolls over the image

quiz using javascript

- see http://www.cs.ubc.ca/~hoos/cpsc101/Labs/JavaScript/wmst201quiz.html

- when "wmst201quiz.html" is opened in the web browser, the quiz is presented

- when the "submit" button is clicked, a new page, "wmst201quiz_result.html", is opened

wmst201quiz.htm

- this file uses familiar HTML code for generating a table

- new things to note:
  - HTML forms
  - input buttons for receiving inputs for the form

<tr>
    <td height="24"></td>
    <td height="24"><input type=radio name=2 value=0> Word</td>
    <td height="24"><input type=radio name=2 value=1> &nbsp;Excel</td>
    <td height="24"><input type=radio name=2 value=2> &nbsp;PowerPoint</td>
    <td height="24"><input type=radio name=2 value=3> &nbsp;Internet Explorer</td>
</tr>

typical row of quiz table

input type = radio

- circular buttons resemble old car radios where exactly one button can be pressed at any time
  🏆🏆🏆
  🏆🏆🏆

- in the quiz, for each name, at most one button with that name can be selected

submit button

<tr>
    <td height="28"></td>
    <td colspan=3 height="28">
      <input type=submit value="Hand it in!" name=submit></td>
</tr>

- when the submit button is clicked, processing of the information collected begins
**html forms**

- the file “wmst201quiz.html” contains the line
  
  ```html
  <form name=wmst201quiz method=get
  action=wmst201quiz_result.html>
  ```

- this line tells the browser that
  - the document contains a form
  - the information should be collected by extending the URL
  - when the information is collected, the file “wmst201quiz.html” should be opened

**submitting the quiz answers**

- clicking the submit button causes the “wmst201quiz_results.html” to be opened

- (extended) URL looks like:
  - `http://www.cs.ubc.ca/~hoos/cpsc101/Labs/JavaScript/wmst201quiz_result.html?0=0&1=1&2=1&4=2&submit=Hand+it+in%21`

- note that after the file name, the quiz answers are listed as part of the extended URL!

**information flow in quiz example**

```
1. user: click on page/link
2. request quiz.html
3. respond to request
4. return quiz.html
5. open quiz page
6. user: play with quiz
7. user: click submit button
8. request quiz_results.html
9. respond to request
10. return quiz_results.html
11. interpret and display quiz_results page
```