

COMP303 Internet Computing

HTML, CSS and Event Handling

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00_using_style_section.html

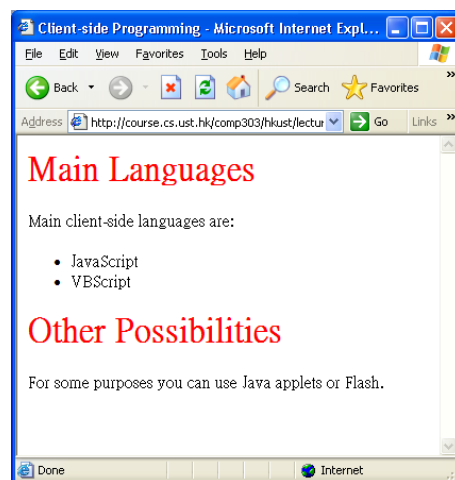
```
<html>
  <title>Client-side Programming</title>

  <style>
    h1 { color: red }
  </style>

  <body>
    <h1>Main Languages</h1>
    <p>Main client-side languages are:</p>
    <ul>
      <li>JavaScript</li>
      <li>VBScript</li>
    </ul>

    <h1>Other Possibilities</h1>
    <p>For some purposes you can use Java applets or Flash.</p>

  </body>
</html>
```



01_style_file.css

```
h1 { color: red }
```

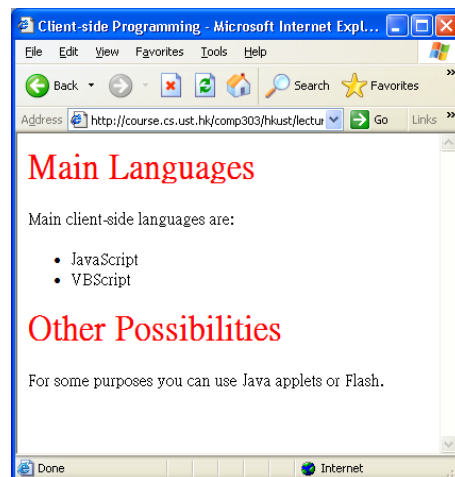
01_style_file.html

```
<html>
  <title>Client-side Programming</title>
  <link rel="stylesheet" href="01_style_file.css" type="text/css" />

  <body>
    <h1>Main Languages</h1>
    <p>Main client-side languages are:</p>
    <ul>
      <li>JavaScript</li>
      <li>VBScript</li>
    </ul>

    <h1>Other Possibilities</h1>
    <p>For some purposes you can use Java applets or Flash.</p>

  </body>
</html>
```



02_layer_style.html

```
<html>
```

```
  <style type="text/css">
```

```
    .layer_style1 {  
      position:absolute; top:70px; left:80px;  
      background-color:lightblue;  
    }
```

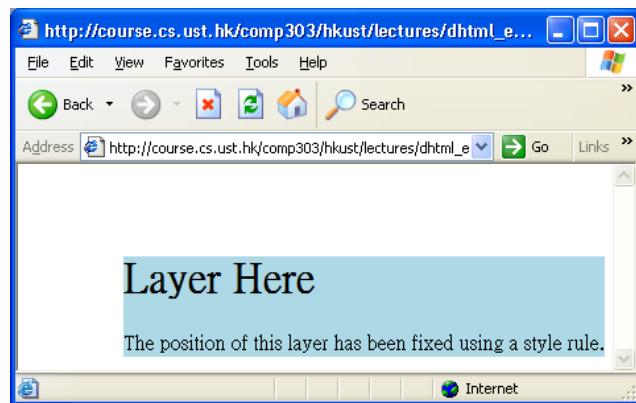
```
  </style>
```

```
  <body>
```

```
    <div id="layer_name1" class="layer_style1">  
      <h1>Layer 1</h1>  
      <p>Content for layer 1 goes here.</p>  
    </div>
```

```
  </body>
```

```
</html>
```



03_layer_zindex.html

```
<html>
  <head>
    <title>Layers example - Swimming Fish</title>

    <script language="javascript">
      /*
        This is an example of z-index and layer handling
      */

      <!--
        var fish_layer, red_pole_layer, blue_pole_layer, green_pole_layer;
        var started;

      /*
        Use an integer value to represent the fish's direction

        -1 means that the fish moves to the left hand side
        1 means that the fish moves to the right hand side
      */
      var toLeft = -1;
      var toRight = 1;

      function init() {
        started = true;

        // Find and point elements
        fish_layer = document.getElementById("fish");
        fish_layer.currentImg = document.getElementById("currentImg");

        red_pole_layer = document.getElementById("redpole");
        blue_pole_layer = document.getElementById("bluepole");
        green_pole_layer = document.getElementById("greenpole");

        // At the beginning, set the fish's direction to 1
        // (= move to the right hand side)
```

```

    fish_layer.direction = toRight;
    fish_layer.position = 10;

    // Move the fish
    move_fish();
}

function move_fish() {
    /*
    Update the position of the fish

    Remember that:
    If the fish.direction value is 1, the fish moves to the left hand side.
    If the fish.direction value is -1, the fish moves to the right hand side.
    */

    fish_layer.position += 4 * fish_layer.direction;
    fish_layer.style.left = fish_layer.position;

    // Check whether the fish reaches the boundary
    if (fish_layer.position <= 10 || fish_layer.position >= 420) {
        change_layer_order();
        change_direction();
    }

    // Repeat the loop using a timer
    setTimeout("move_fish()", 50);
}

// Change the fish's direction
function change_direction () {
    if (fish_layer.direction == toRight) {
        fish_layer.direction = toLeft;
        fish_layer.currentImg.src = "images/fish_to_left.gif";
    }
    else {

```

```

        fish_layer.direction = toRight;
        fish_layer.currentImg.src = "images/fish_to_right.gif";
    }
}

```

// Change the depths of the poles

```
function change_layer_order () {
```

```
    /*
```

```
    Swap the z-index values of the blue, green pole and red pole.
```

In JavaScript, if we need to change the z-index of an element, we should change the value of zIndex instead.

(In other words, for a parameter which has a hyphen in the name we have to remove the hyphen and capitalise the following letter).

```
    */
```

```
    var tmp = redpole.style.zIndex;
```

```
    red_pole_layer.style.zIndex = bluepole.style.zIndex;
```

```
    blue_pole_layer.style.zIndex = tmp;
```

```
    green_pole_layer.style.zIndex = tmp;
```

```
    }
```

```
-->
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<h1>Layers Example - Swimming Fish</h1>
```

```
<div id="bluepole" style="position:absolute; left:160; top:100; z-index:1">
```

```
    
```

```
</div>
```

```
<div id="redpole" style="position:absolute; left:260; top:100; z-index:3">
```

```
    
```

```
</div>
```

```
<div id="greenpole" style="position:absolute; left:360; top:100; z-index:1">
```

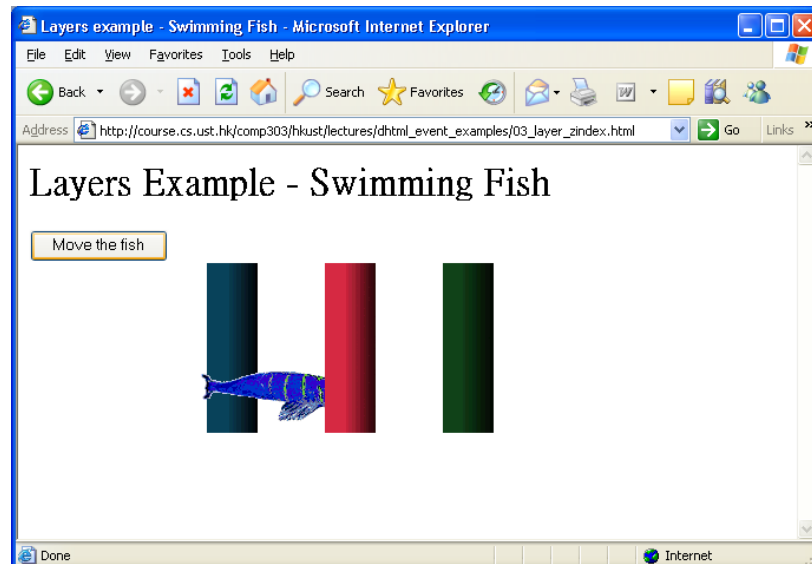
```
    
```

```
</div>
```

```
<div id="fish" style="position:absolute; left:10; top:170; z-index:2">  
    
</div>
```

```
<form>  
  <input type="button" value="Move the fish"  
    onclick="if (!started) init();">  
</form>
```

```
</body>  
</html>
```



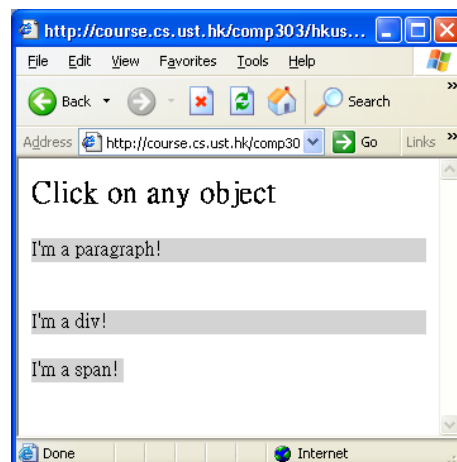
04_one_handler_multiple_objects.html

```
<html>
  <script language="JavaScript">
    /*
      This is an example of one event handler being used
      with multiple objects.

      Works in both IE and FF.
    */
    function handle_event(obj) {
      obj.style.background="red"; // Change the bg colour
    }
  </script>
<body>
  <h2>Click on any object</h2>
  <p style="background:lightgrey;" onclick="handle_event(this)">
    I'm a paragraph!
  </p>
  <br />

  <div style="background:lightgrey;" onclick="handle_event(this)">
    I'm a div!
  </div>
  <br />

  <span style="background:lightgrey;" onclick="handle_event(this)">
    I'm a span!
  </span>
</body>
</html>
```



05_two_ways_to_handle_event_object.html

```
<html>
<script language="JavaScript">
```

```
/*
This is an example of two approaches which can be
used to identify the HTML object that had an event.
```

The first way uses 'this' to reference the object which is being clicked on.

```
The second way uses 'srcElement' (IE) or 'target' (any other browser) to reference the object.
*/
```

```
function example_method1(obj) {
    // To use this method 'this' is passed to the function,
    // then the object which had the event can be accessed.
    // Works in both IE and FF.
    // This is the same method used in the last example.
    obj.style.left =parseInt(obj.style.left)+10;    // Move it to the right
}
```

```
function example_method2(e) {
    /*
    With the second method there is no need to use 'this'.
    The object reference comes from the event object.

    If the browser is IE, use 'window.event.srcElement' to reference the object.
    Any other browser, use 'event.target' instead.
    */

    if (e == null) e = window.event; // for IE
    if (e.target == null) e.target = e.srcElement; // for Firefox and others
    e.target.style.left = parseInt(e.target.style.left)+10; // Move it to the right
}
</script>
```

```
<body>
```

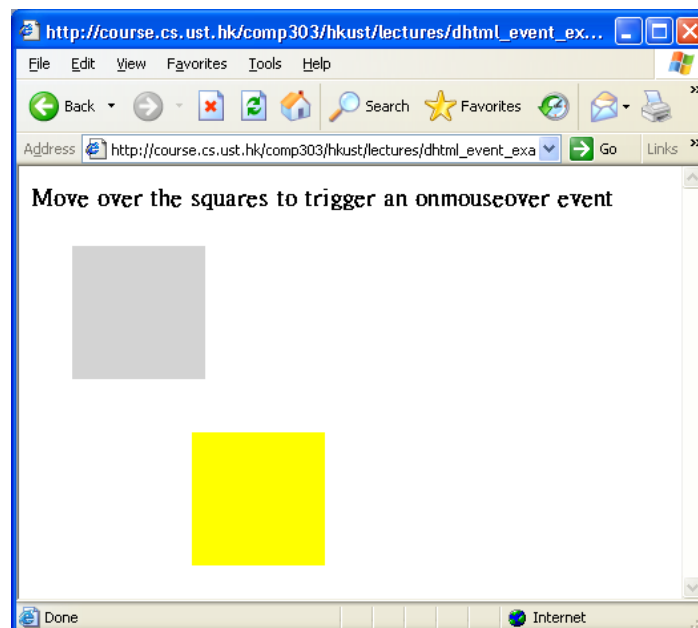
```
<h3>Move over the squares to trigger an onmouseover event</h3>
```

```
<div id="text_layer1"  
  style="position:absolute; top:60; left:40; width:100; height:100; background:lightgrey;"  
  onmouseover="example_method1(this)">  
</div>
```

```
<div id="text_layer2"  
  style="position:absolute; top:200; left:130; width:100; height:100; background:yellow;"  
  onmouseover="example_method2(event)">  
</div>
```

```
</body>
```

```
</html>
```



06_click_and_drag.html

```
<html>
  <script language="JavaScript">

    /*
      This is an example of click & drag code for multiple objects (HTML).
      This version of the code uses 'this' to reference the object which
      is being clicked on.

      This code works well for medium speed drag of the object, but if
      the user tries to drag the object very quickly the focus on the object
      is lost and the drag mode stops.

      One good addition would be to change the z-index so the currently
      selected object comes to the front, this has not been implemented
      in this code.
    */

    var offset_y=0, offset_x=0; // Store the position of the mouse cursor
    // relative to the top left hand corner of the object being dragged
    var dragmode=false;        // Simple boolean variable

    function start_drag_mode(e) {
      /*
        Store the offset position where the mouse was clicked.

        If the browser is IE, use 'window.event.srcElement' to reference the object.
        Any other browser, use 'event.target' instead.
      */
      if (e == null) e = window.event;
      if (e.target == null) e.target = e.srcElement;

      offset_x = e.clientX - parseInt(e.target.style.left);
      offset_y = e.clientY - parseInt(e.target.style.top);
      dragmode=true; // Turn on click and drag mode
    }
  </script>
</html>
```

```
function stop_drag_mode() {
    dragmode=false; // Turn off click and drag mode
}
```

```
function update(e) {
    if (dragmode==true) {
        /*
            If we are in drag mode, update the position of the object,
            taking into account the offset position when
            the mouse button was clicked down on the object which is
            being dragged.

            If the browser is IE, use 'window.event.srcElement' to reference the object.
            Any other browser, use 'event.target' instead.
        */
        if (e == null) e = window.event;
        if (e.target == null) e.target = e.srcElement;
        e.target.style.left = e.clientX - offset_x ;
        e.target.style.top  = e.clientY - offset_y ;
    }
}
```

```
</script>
```

```
<body>
```

```
<div id="text_layer1"
    style="position:absolute; top:200; left:130; width:100; height:100; background:yellow;"
    onmousedown="start_drag_mode(event)"
    onmouseup="stop_drag_mode()"
    onmousemove="update(event)">
```

Click and drag me!

```
</div>
```

```
<div id="text_layer2"
    style="position:absolute; top:60; left:40; width:100; height:100; background:lightgrey;"
    onmousedown="start_drag_mode(event)"
    onmouseup="stop_drag_mode()"
    onmousemove="update(event)">
```

Drag me!

```
</div>
```

```
<div id="text_layer3"
  style="position:absolute; top:60; left:340; width:100; height:100; background:lightblue;"
  onmousedown="start_drag_mode(event)"
  onmouseup="stop_drag_mode()"
  onmousemove="update(event)">
  <i><b>No no, DRAG ME!</b></i>
</div>
```

```
</body>
</html>
```

