software studio

document object model

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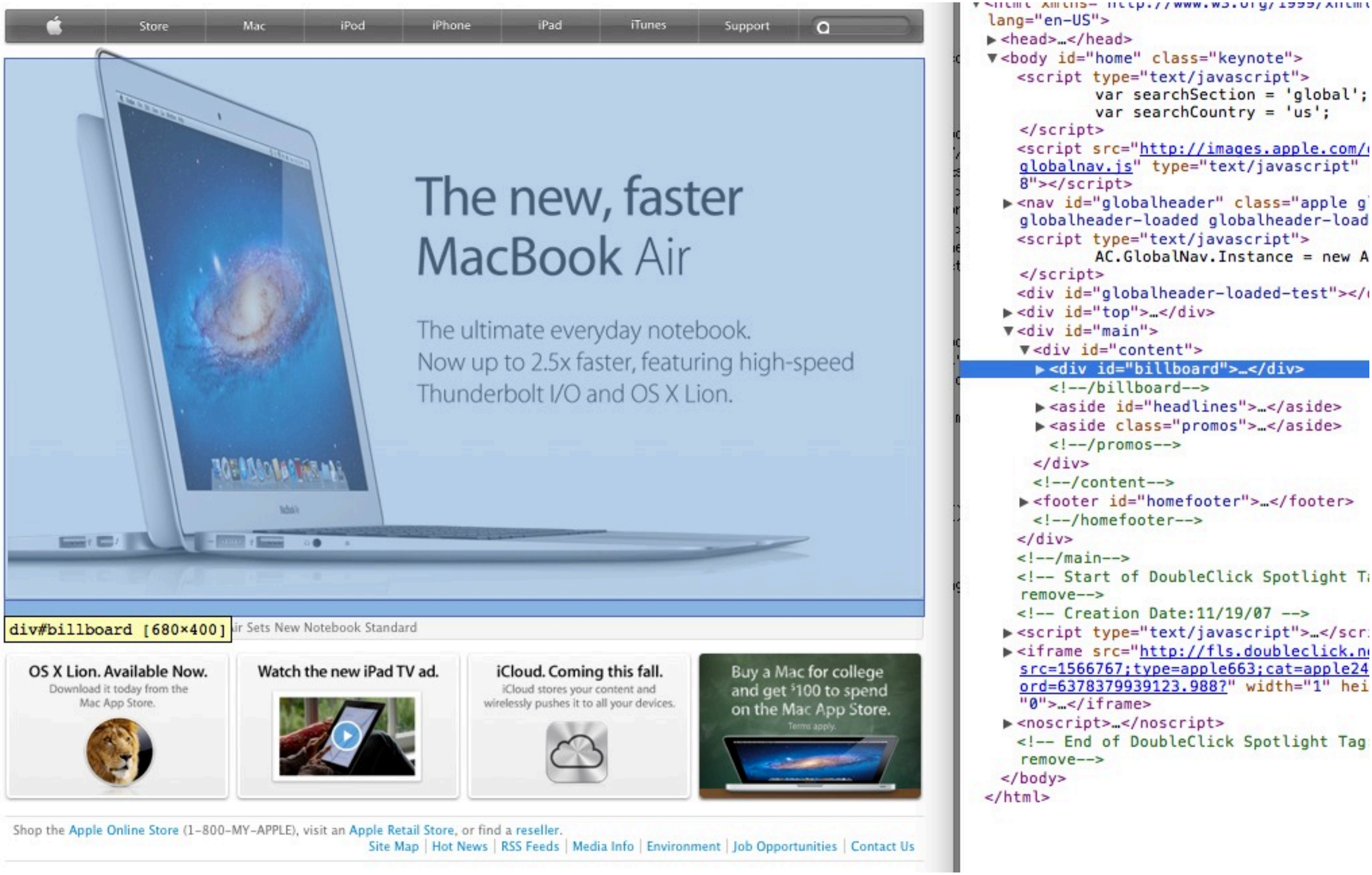
a web page

Screenshot of webpage removed due to copyright restrictions.
See next slide for image reference.

highlighting elements



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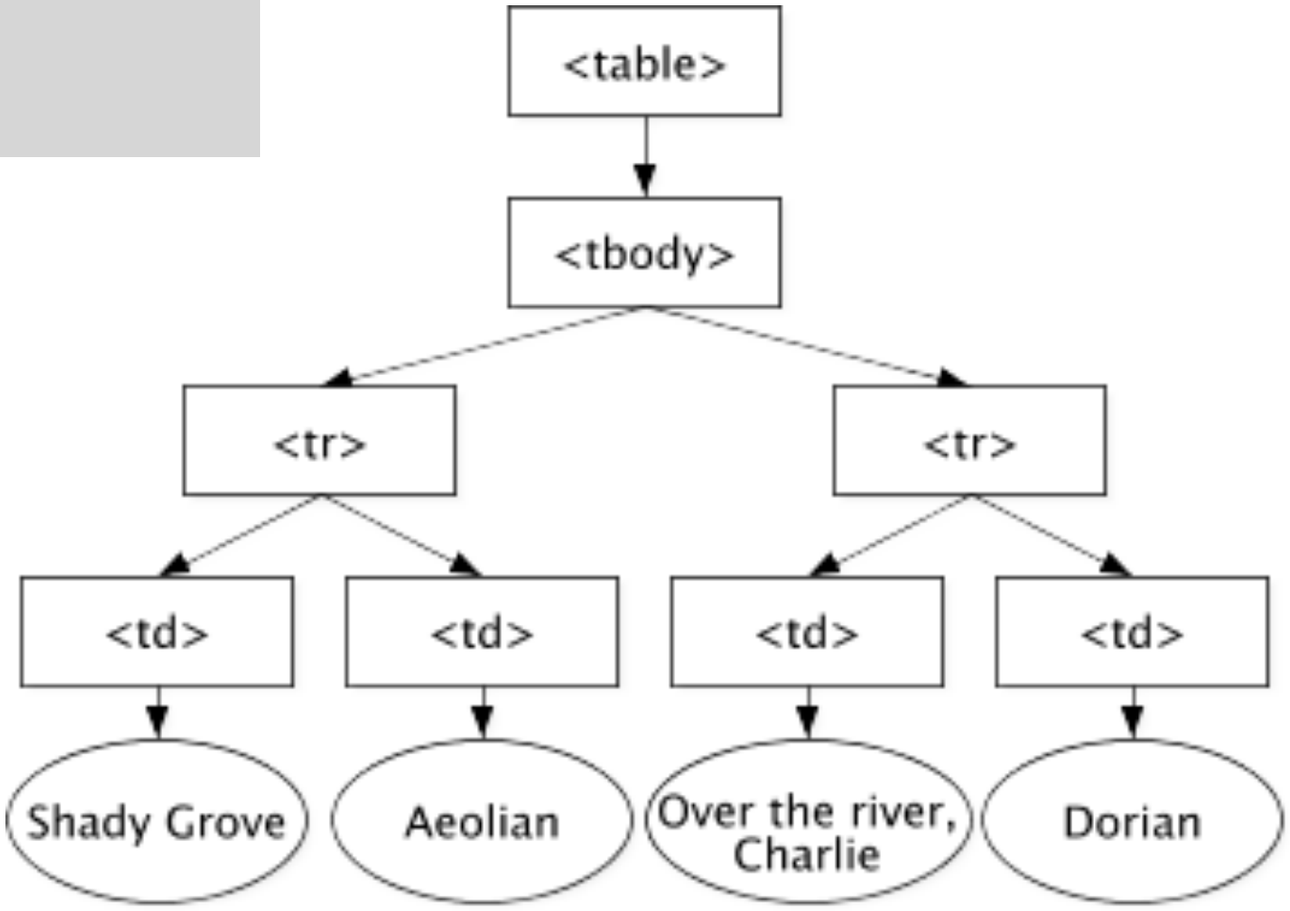
the DOM structure

```
<table>
  <tbody>
    <tr>
      <td>Shady Grove</td>
      <td>Aeolian</td>
    </tr>
    <tr>
      <td>Over the River, Charlie</td>
      <td>Dorian</td>
    </tr>
  </tbody>
</table>
```



client-side programming

where's the code?

› JavaScript

manipulating the DOM

› traverse the elements
› add and delete elements
› modify properties (eg position)
› modify styles (eg color)

also

› registering events (against timers, buttons)
› making calls to webservers

what DOM code looks like

```
// bind arrow button callbacks
// to arrow keys also
$(document).keydown(function(e){
  if (e.keyCode == ARROW_LEFT) {
    gallery.prev();
    widget.refresh();
    }
  else if (e.keyCode == ARROW_RIGHT)
{
    gallery.next();
    widget.refresh();
    }
  });
  ...

gallery.prev = function () {
  if (mode == SP.mode.SLIDESHOW) {
    change(SP.mode.PHOTO);
    gallery.prev_photo();
    }
  else if (mode == SP.mode.PHOTO)
    gallery.prev_photo();
  else if (mode == SP.mode.GRID)
    gallery.prev_grid();
}
```

```
var photo = {};
// JQuery image object
var image = $('<img>');
// box to contain image and caption
var box = $('<div>');
// box to contain caption
var captionBox = $('<p>');

// make invisible initially
box.css('opacity', 0);
box.addClass(css_prefix + '_box');
box.append(image);
if (caption && caption != "") {
  captionBox.text(caption);
  captionBox.addClass(css_prefix +
'_caption');
  box.append(captionBox);
}
```

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