

# software studio

document object model

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# a web page

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See next slide for image reference.

# highlighting elements

Store Mac iPod iPhone iPad iTunes Support

## The new, faster MacBook Air

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**div#billboard [680x400]** Air Sets New Notebook Standard

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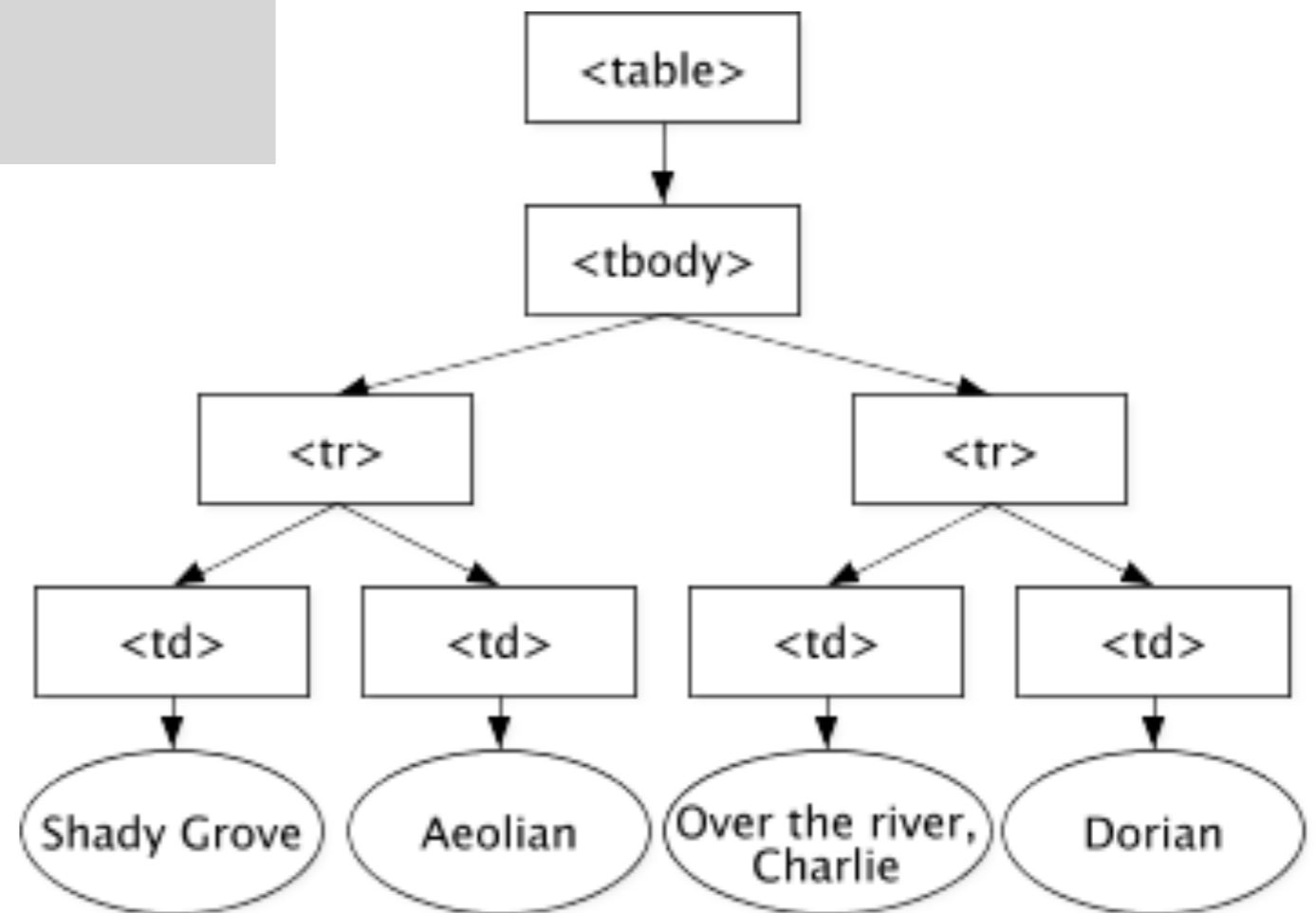
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```
<html xmlns="http://www.w3.org/1999/xhtml" lang="en-US">
  <head>...</head>
  <body id="home" class="keynote">
    <script type="text/javascript">
      var searchSection = 'global';
      var searchCountry = 'us';
    </script>
    <script src="http://images.apple.com/globalnav.js" type="text/javascript" 8"></script>
    <nav id="globalheader" class="apple globalheader-loaded globalheader-load">
      <script type="text/javascript">
        AC.GlobalNav.Instance = new A
      </script>
      <div id="globalheader-loaded-test"></div>
    <div id="top">...</div>
    <div id="main">
      <div id="content">
        <div id="billboard">...</div>
        <!--/billboard-->
        <aside id="headlines">...</aside>
        <aside class="promos">...</aside>
        <!--/promos-->
      </div>
      <!--/content-->
      <footer id="homefooter">...</footer>
      <!--/homefooter-->
    </div>
    <!--/main-->
    <!-- Start of DoubleClick Spotlight Tag remove-->
    <!-- Creation Date:11/19/07 -->
    <script type="text/javascript">...</script>
    <iframe src="http://fls.doubleclick.net/ord=6378379939123.988?" width="1" height="0">...</iframe>
    <noscript>...</noscript>
    <!-- End of DoubleClick Spotlight Tag remove-->
  </body>
</html>
```

# 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 web servers

# 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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