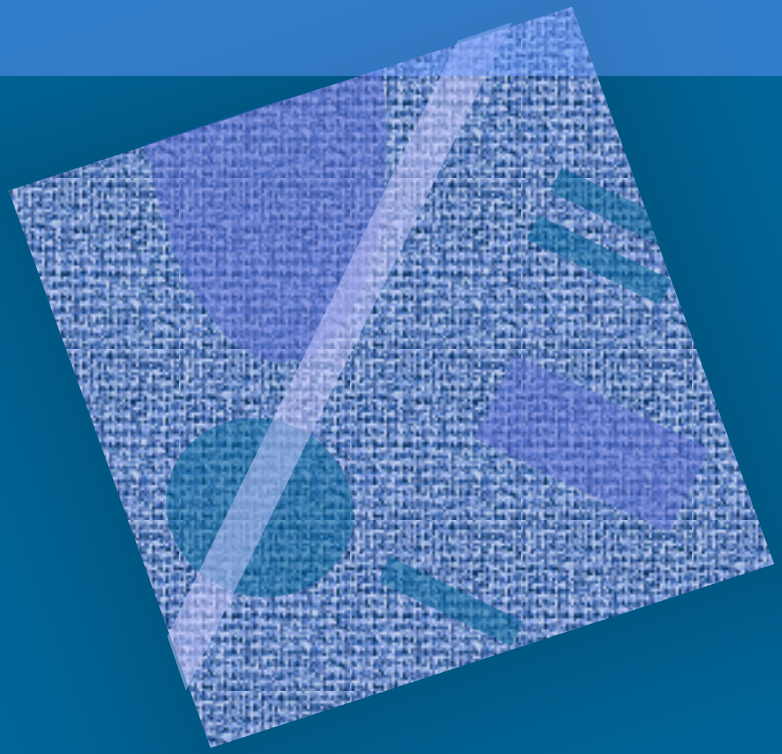
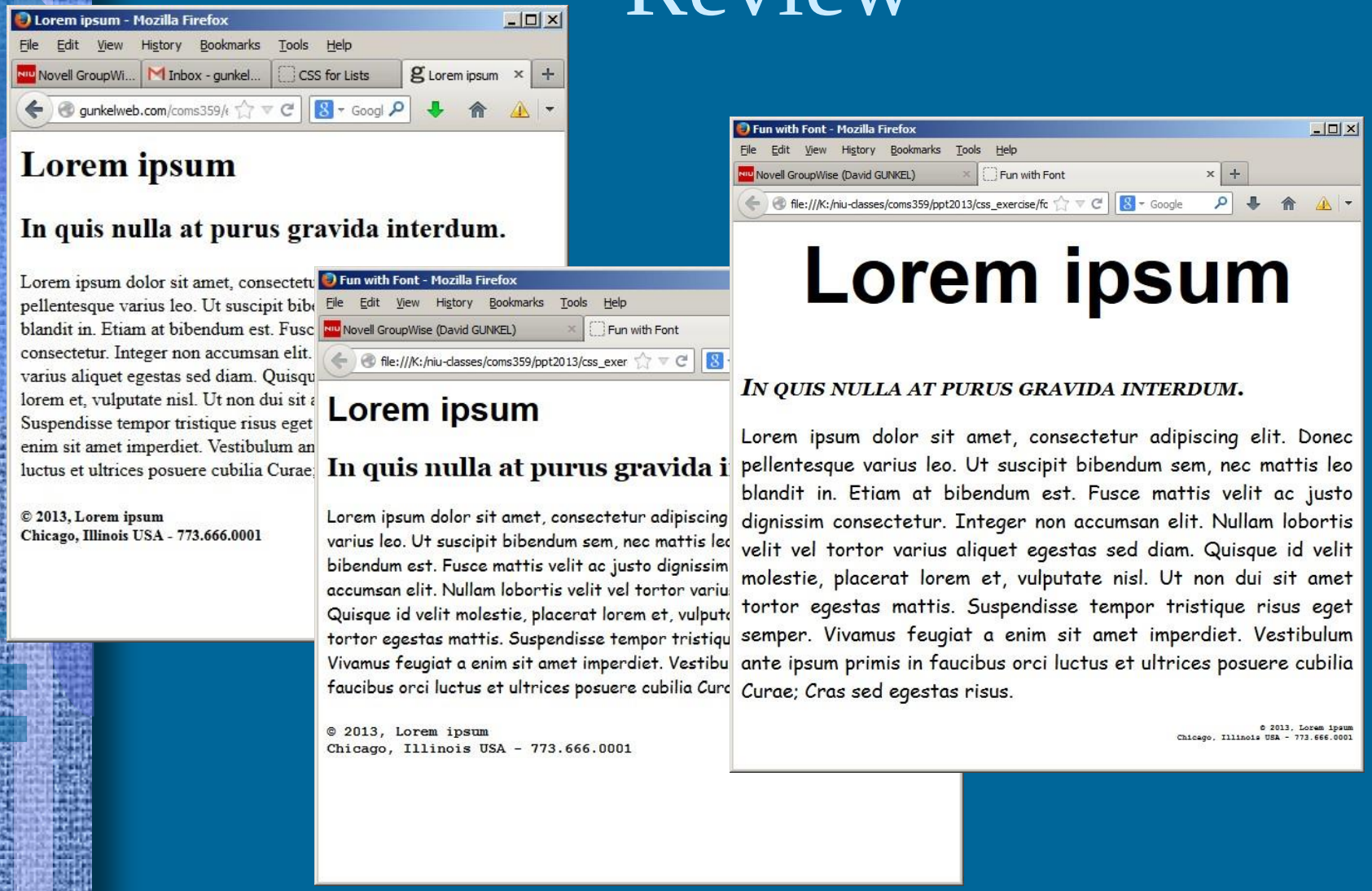
COMS 359: Interactive Media



Agenda

- Review
- HTML 5 Layout
- Javascript
- Preview

Review

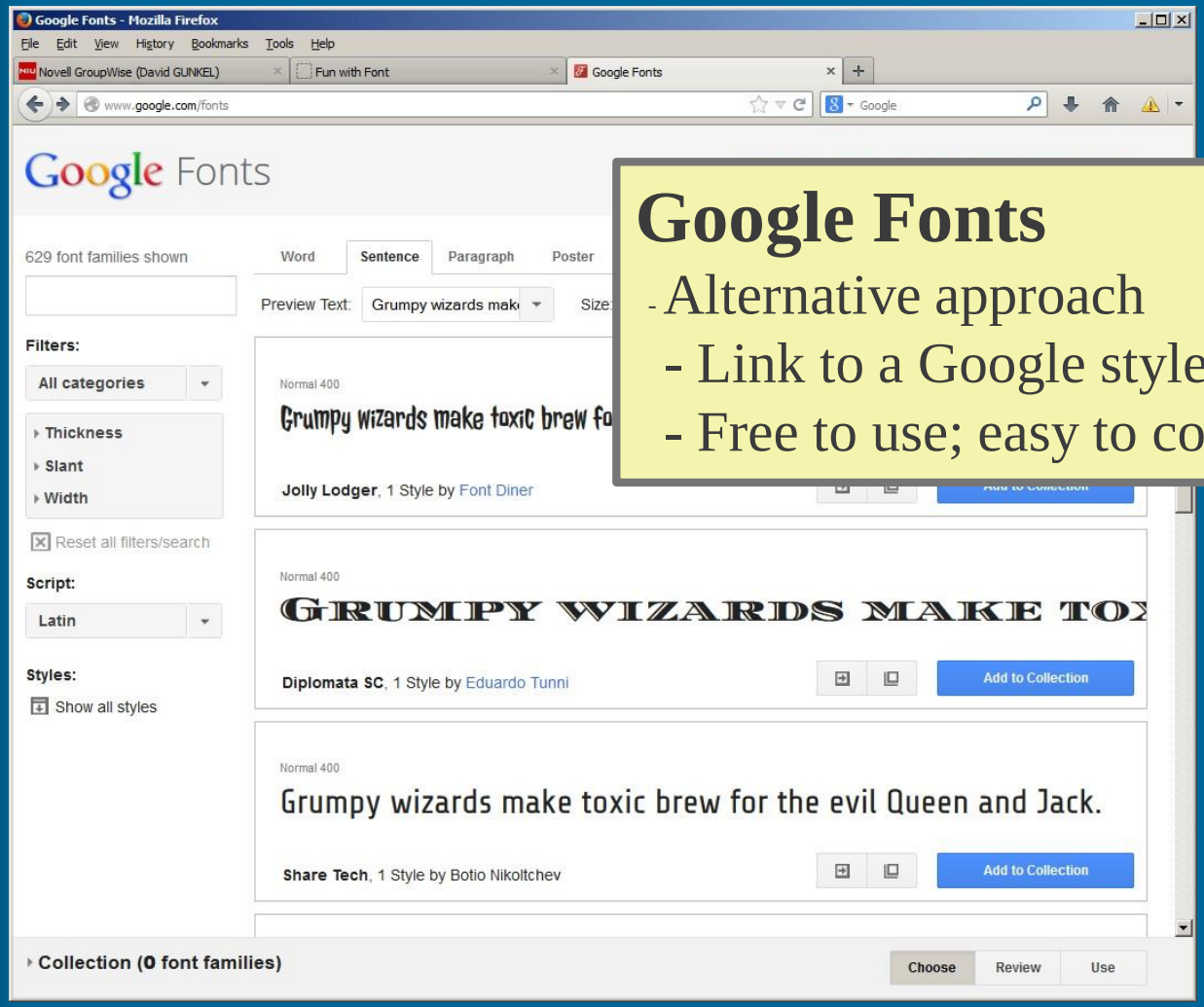

Lorem ipsum - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Novell GroupWi... Inbox - gunkel... CSS for Lists Lorem ipsum
gunkelweb.com/coms359/
Lorem ipsum
In quis nulla at purus gravida interdum.
Lorem ipsum dolor sit amet, consectetu
pellentesque varius leo. Ut suscipit bib
blandit in. Etiam at bibendum est. Fusc
consectetur. Integer non accumsan elit.
varius aliquet egestas sed diam. Quisqu
lorem et, vulputate nisl. Ut non dui sit
Suspendisse tempor tristique risus eget
enim sit amet imperdiet. Vestibulum an
luctus et ultrices posuere cubilia Curae;
© 2013, Lorem ipsum
Chicago, Illinois USA - 773.666.0001
Fun with Font - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Novell GroupWise (David GUNKEL) Fun with Font
file:///K:/niu-classes/coms359/ppt2013/css_exer
Lorem ipsum
In quis nulla at purus gravida i
Lorem ipsum dolor sit amet, consectetur adipiscing
varius leo. Ut suscipit bibendum sem, nec mattis lec
bibendum est. Fusce mattis velit ac justo dignissim
accumsan elit. Nullam lobortis velit vel tortor variu
Quisque id velit molestie, placerat lorem et, vulputa
tortor egestas mattis. Suspendisse tempor tristiqu
Vivamus feugiat a enim sit amet imperdiet. Vestibu
faucibus orci luctus et ultrices posuere cubilia Cura
© 2013, Lorem ipsum
Chicago, Illinois USA - 773.666.0001
Fun with Font - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Novell GroupWise (David GUNKEL) Fun with Font
file:///K:/niu-classes/coms359/ppt2013/css_exercise/fc
Google
Lorem ipsum
IN QUIS NULLA AT PURUS GRAVIDA INTERDUM.
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pellentesque varius leo. Ut suscipit bibendum sem, nec mattis leo blandit in. Etiam at bibendum est. Fusce mattis velit ac justo dignissim consectetur. Integer non accumsan elit. Nullam lobortis velit vel tortor varius aliquet egestas sed diam. Quisque id velit molestie, placerat lorem et, vulputate nisl. Ut non dui sit amet tortor egestas mattis. Suspendisse tempor tristique risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.
© 2013, Lorem ipsum
Chicago, Illinois USA - 773.666.0001

```
h1
 {font-family:arial;
  text-align:center;
  font-size:80px;
  font-stretch:condensed;
  text-transform:uppercase;
  text-shadow:5px 5px 2px #888888;}

h2
 {font-family:Georgia, "Times New Roman", serif;
  font-style:italic;
  font-variant:small-caps;
  text-decoration:underline;
  letter-spacing:12px;}

p
 {font-family:"comic sans MS", cursive;
  font-size:20px;
  font-weight:normal;
  text-align:justify;
  text-indent:80px;
  line-height:12px;}

h5
 {font-family:"courier new", courier, monospace;
  font-size:50%;
  font-weight:bold;
  text-align:right;}
```

PROPERTIES

font-family
font-style
font-weight
font-variant
font-size
font-stretch
font-face
text-align
text-transform
text-decoration
text-indent
text-shadow
line-height
letter-spacing
word-spacing
:first-letter
:first-line

Review



Google Fonts

- Alternative approach
  - Link to a Google stylesheet
  - Free to use; easy to code

http://www.google.com/fonts

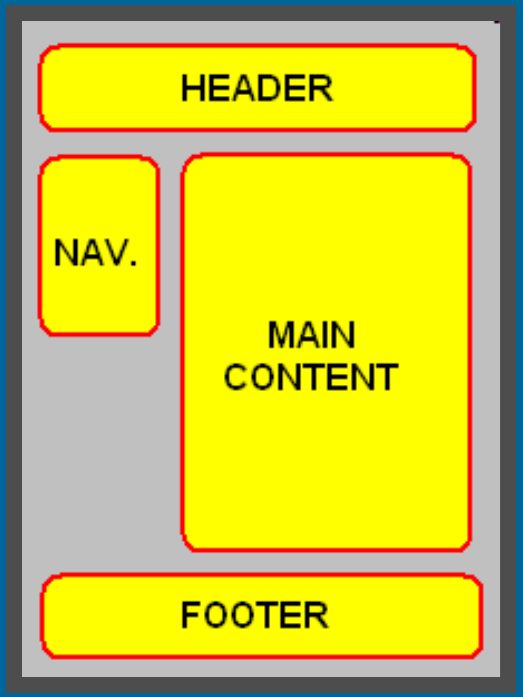
Review

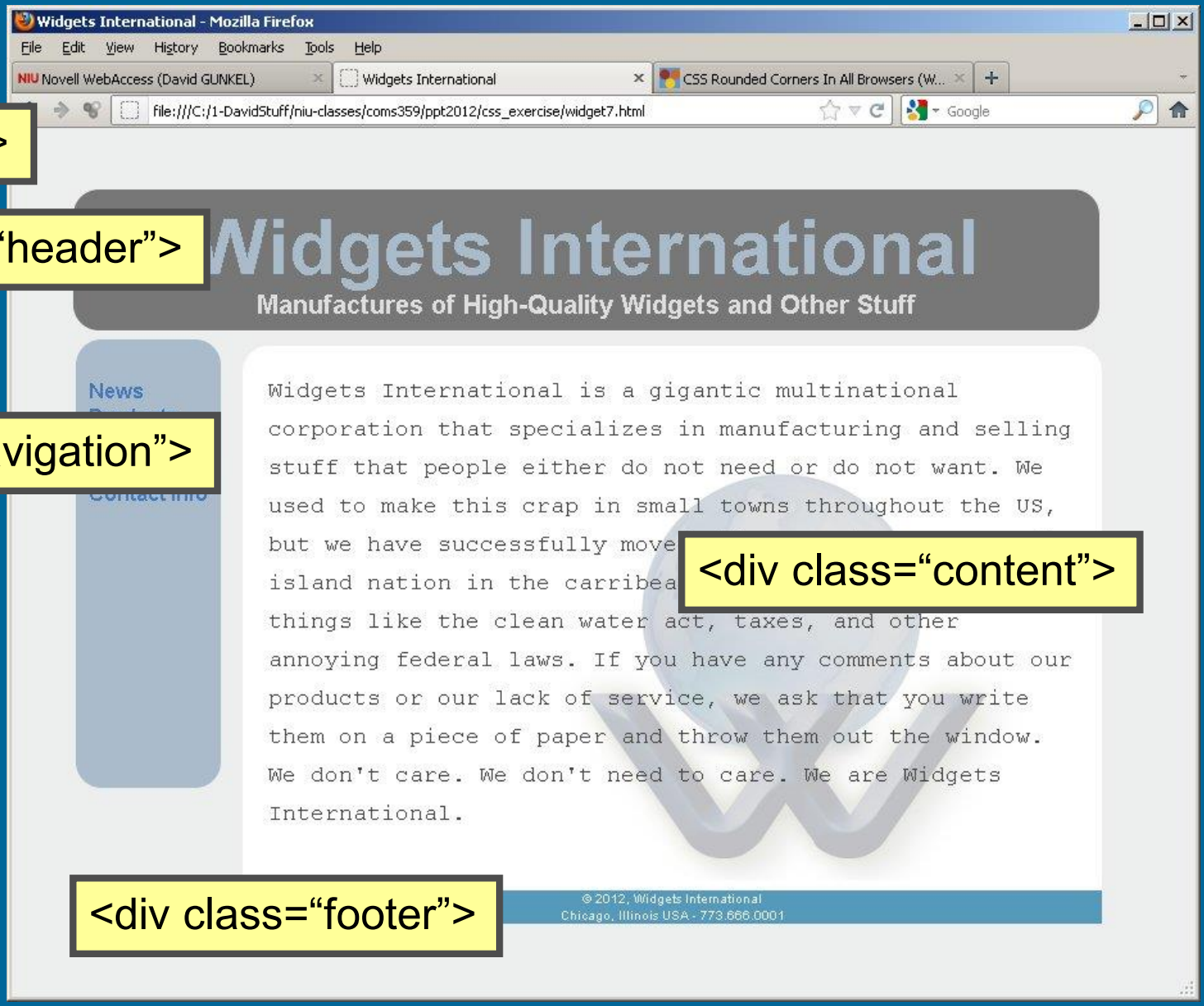
- Pseudo classes for styling hypertext
  - :link
  - :visited
  - :active
  - :hover

```
a:link
 {color:#888888;
    text-decoration:none;}

a:visited
  {color:#333333;}

a:active
  {color:#959596;}

a:hover
  {color:de3020;
    text-decoration:underline;}
```

HTML5 Layout

- Page Layout with CSS
  - Use tags to identify different parts of the html document
  - Apply style to these elements in the stylesheet by creating different classes
  - Position the elements by using positioning




Widgets International - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Novell WebAccess (David GUNKEL)
Widgets International
CSS Rounded Corners In All Browsers (W...
file:///C:/1-DavidStuff/niu-classes/coms359/ppt2012/css_exercise/widget7.html
Google
<body>

Widgets International
Manufactures of High-Quality Widgets and Other Stuff

News

Widgets International is a gigantic multinational corporation that specializes in manufacturing and selling stuff that people either do not need or do not want. We used to make this crap in small towns throughout the US, but we have successfully move
island nation in the carribea
things like the clean water act, taxes, and other annoying federal laws. If you have any comments about our products or our lack of service, we ask that you write them on a piece of paper and throw them out the window. We don't care. We don't need to care. We are Widgets International.

© 2012, Widgets International
Chicago, Illinois USA - 773.666.0001

<body>

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\css_exercise\widget7.html

File Edit Search View Format Language Settings Macro Run Plugins ?

widgetstyle7.css | widget7.html

```
<html>
  <head>
    <title>Widgets International</title>
    <link rel="stylesheet" href="widgetstyle7.css" type="text/css">
  </head>
<body>

<div class="header">
<h1>Widgets International</h1>
<h2>Manufactures of High-Quality Widgets and Other Stuff</h2>
</div>

<div class="content">Widgets International is a gigantic multinational
corporation that specializes in manufacturing and selling stuff that people
either do not need or do not want. We used to make this crap in small towns
throughout the US, but we have successfully moved all operations to a small
island nation in the carribean where we are immune to things like the clean
water act, taxes, and other annoying federal laws. If you have any comments
about our products or our lack of service, we ask that you write them on a
piece of paper and throw them out the window. We don't care. We don't need
to care. We are Widgets International.</div>

<div class="navigation">
  <a href="news.html">News</a><br>
  <a href="products.html">Products</a><br>
  <a href="people.html">People</a><br>
  <a href="orderform.html">Order Form</a><br>
  <a href="contact.html">Contact Info</a>
</div>

<div class="footer">
&copy; 2012, Widgets International<br>
Chicago, Illinois USA - 773.666.0001
</div>

</body>
</html>
```

widgetstyle7.css | widget7.html

```css
/* External Style Sheet */

body
 {background-color:#edeeee;
  width:800px;
  padding:40px 40px 40px 40px;}

.header
 {text-align:center;
  padding:10px 10px 10px 10px;
  background-color:#777777;
  width:760px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
   border-radius:20px;}

.navigation
 {background-color:#aabbcc;
  padding:30px 10px 220px 10px;
  position:absolute;
  left:50px;
  top:180px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
  border-radius:20px;}
```

widgetstyle7.css | widget7.html

```css
.content
 {font-size:18px;
  font-family:monospace;
  color:#444444;
  line-height:30px;
  background-color:#ffffff;
  background-image:url("wlogo.png");
  background-repeat:no-repeat;
  background-position:250px 100px;
  position:absolute;
  left:180px;
  top:180px;
  width:610px;
  height:400px;
  padding:20px 20px 20px 20px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
  border-radius:20px;}

.footer
 {font-size:10px;
  font-family:arial;
  color:#eeeeee;
  background-color:#5599bb;
  width:650px;
  position:absolute;
  left:180px;
  top:595px;
  text-align:center;
  }
```

widgetstyle7.css | widget7.html

```css
h1
 {font-family:arial;
  font-weight:bold;
  font-size:60px;
  margin:0px;
  color:#aabbcc;}

h2
 {font-family:arial;
  font-weight:bold;
  font-size:20px;
  margin:0px;
  color:#dfdfdf;}

a:link
 {color:#4477bb;
   text-decoration:none;
   font-weight:bold;}

a:visited
 {color:#4477bb;
   text-decoration:none;
   font-weight:bold;}

a:active
 {color:#4477bb;
   text-decoration:none;
   font-weight:bold;}

a:hover
 {color:#4499ff;
  text-decoration:underline;}
```

HTML5 Layout

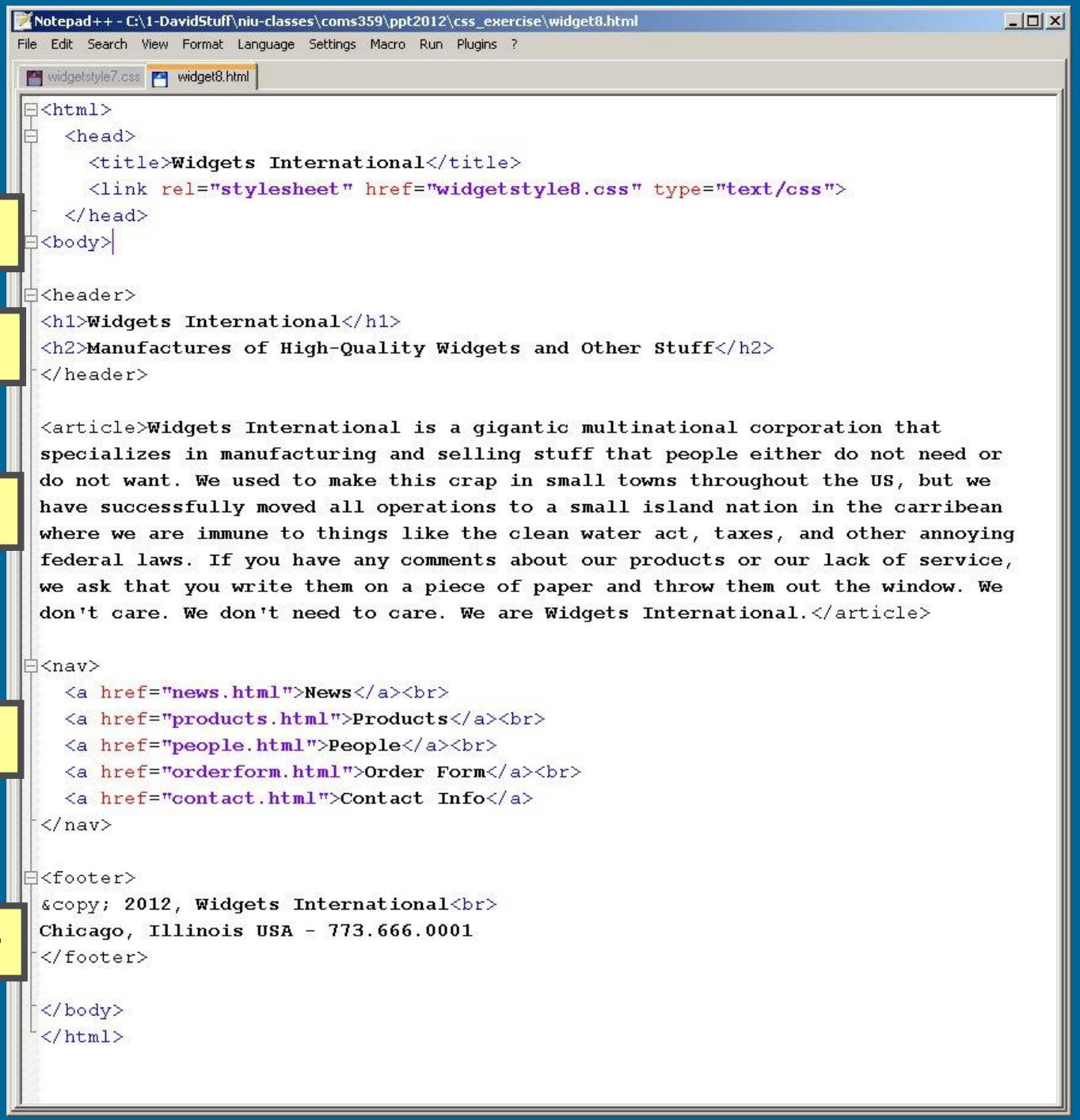
- New Elements
  - <header>
  - <article>
  - <nav>
  - <footer>

Purpose/Benefit

• Structure the html document without having to use multiple tags

• Semantic data useful for web 2.0 applications like data mashups and content aggregators

• is content neutral and generic; the new HTML 5 tags designate not only structural page elements but their meaning within the page content.


Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\css_exercise\widget8.html
File Edit Search View Format Language Settings Macro Run Plugins ?
widgetstyle7.css
widget8.html
<html>
<head>
<title>Widgets International</title>
<link rel="stylesheet" href="widgetstyle8.css" type="text/css">
</head>
<body>
<header>
<h1>Widgets International</h1>
<h2>Manufactures of High-Quality Widgets and Other Stuff</h2>
</header>
<article>Widgets International is a gigantic multinational corporation that specializes in manufacturing and selling stuff that people either do not need or do not want. We used to make this crap in small towns throughout the US, but we have successfully moved all operations to a small island nation in the carribean where we are immune to things like the clean water act, taxes, and other annoying federal laws. If you have any comments about our products or our lack of service, we ask that you write them on a piece of paper and throw them out the window. We don't care. We don't need to care. We are Widgets International.</article>
<nav>
News
Products
People
Order Form
Contact Info
</nav>
<footer>
© 2012, Widgets International
Chicago, Illinois USA - 773.666.0001
</footer>
</body>
</html>
<body>
<header>
<article>
<nav>
<footer>

File Edit Search View Format Language Settings Macro Run Plugins ?

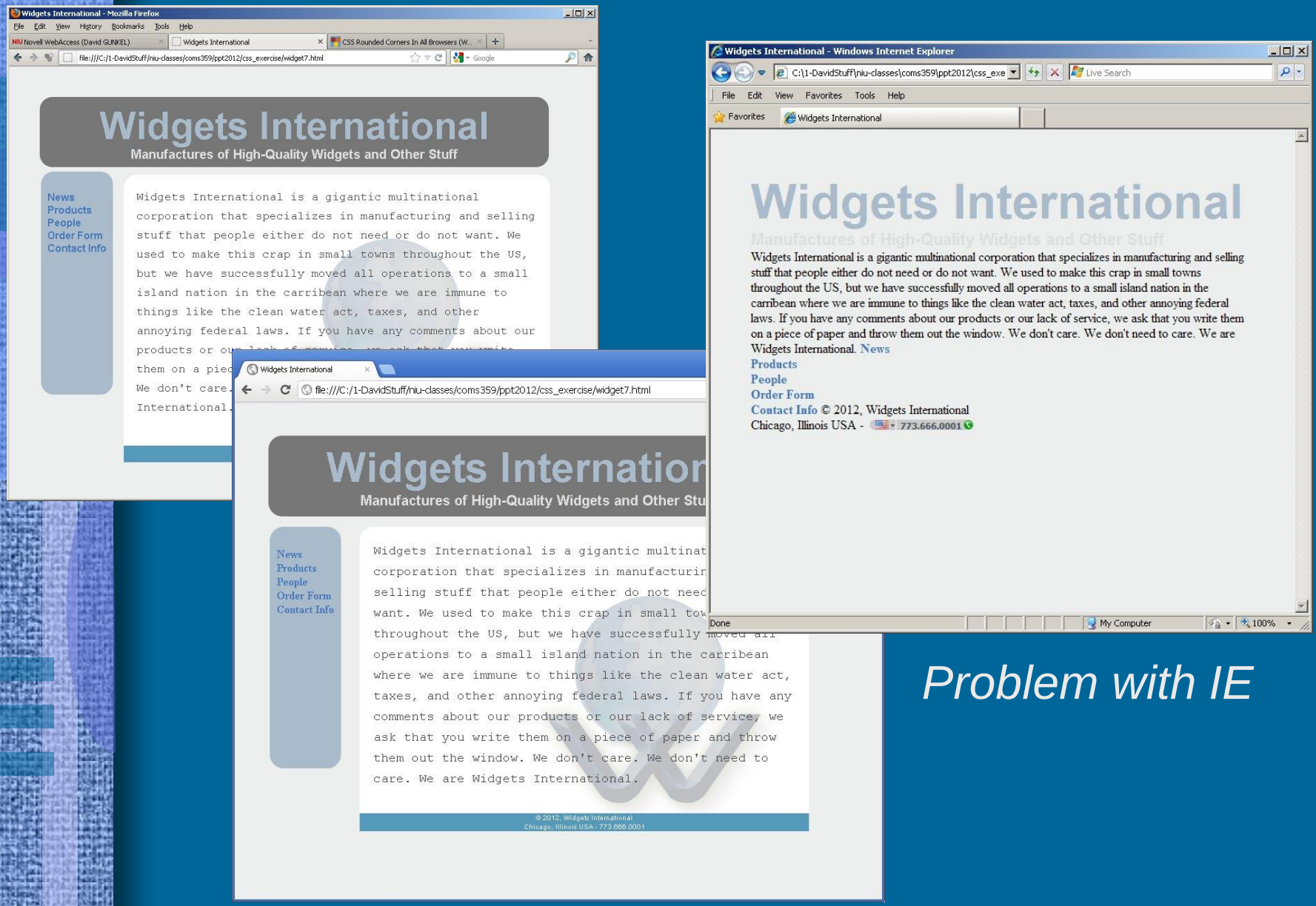
widget8.html | widgetstyle8.css

```
/* External Style Sheet */

body
 {background-color:#edeeee;
  width:800px;
  padding:40px 40px 40px 40px;}

header
 {text-align:center;
  padding:10px 10px 10px 10px;
  background-color:#777777;
  width:760px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
   border-radius:20px;}

nav
 {background-color:#aabbcc;
  padding:30px 10px 220px 10px;
  position:absolute;
  left:50px;
  top:180px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
  border-radius:20px;
  behavior: url(/css/border-radius.htc);
  border-radius: 20px;}
```

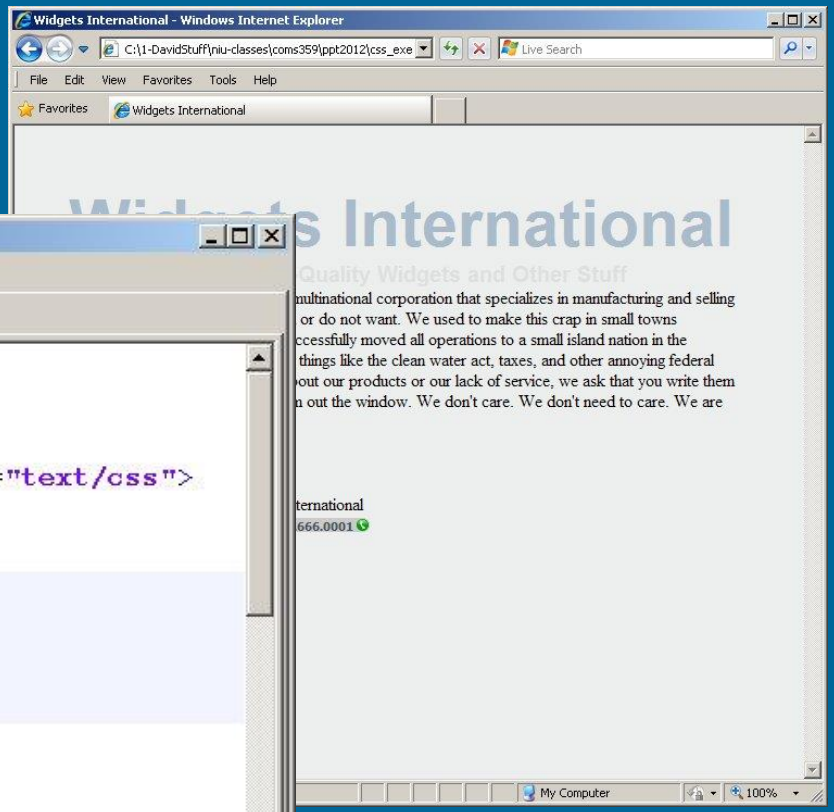
File Edit Search View Format Language Settings Macro Run Plugins ?

widget8.html | widgetstyle8.css

```
article
 {font-size:18px;
  font-family:monospace;
  color:#444444;
  line-height:30px;
  background-color:#ffffff;
  background-image:url("wlogo.png");
  background-repeat:no-repeat;
  background-position:250px 100px;
  position:absolute;
  left:180px;
  top:180px;
  width:610px;
  height:400px;
  padding:20px 20px 20px 20px;
  -moz-border-radius:20px;
  -webkit-border-radius:20px;
  border-radius:20px;}

footer
 {font-size:10px;
  font-family:arial;
  color:#eeeeee;
  background-color:#5599bb;
  width:650px;
  position:absolute;
  left:180px;
  top:595px;
  text-align:center;
  }
```



Problem with IE



Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\css_exercise\widget8-IE.html

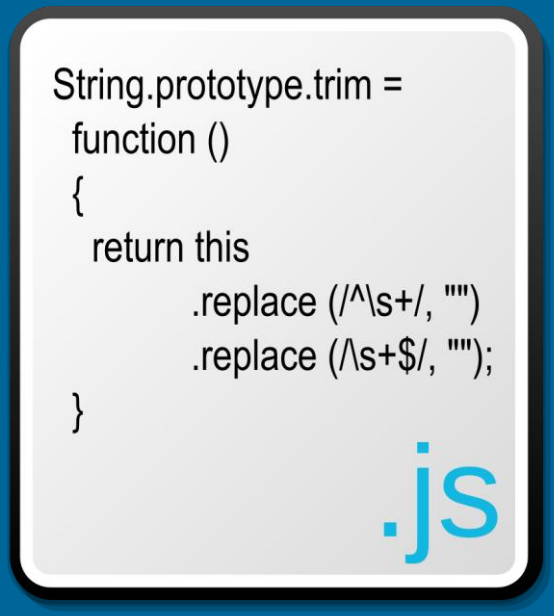
File Edit Search View Format Language Settings Macro Run Plugins ?

widget8.html | widgetstyle8.css | widget8-IE.html

```
<html>
  <head>
    <title>Widgets International</title>
    <link rel="stylesheet" href="widgetstyle8.css" type="text/css">

    <script>
      document.createElement('header');
      document.createElement('nav');
      document.createElement('article');
      document.createElement('footer');
    </script>

  </head>
<body>

<header class="rounded-corners">
<h1>Widgets International</h1>
<h2>Manufactures of High-Quality Widgets and Other Stuff</h2>
</header>
```

JavaScript

- JavaScript Basics
- JavaScript Applications
  - Alert Box
  - New Window
  - Image Rollover



Context / Note

- COMS 359 – JavaScript basics
  - Introduce JavaScript
  - Get you started using JavaScript
- We will not, however, be able to provide complete treatment of JavaScript
  - This requires an entire course
  - Covered in COMS 469

JavaScript Basics

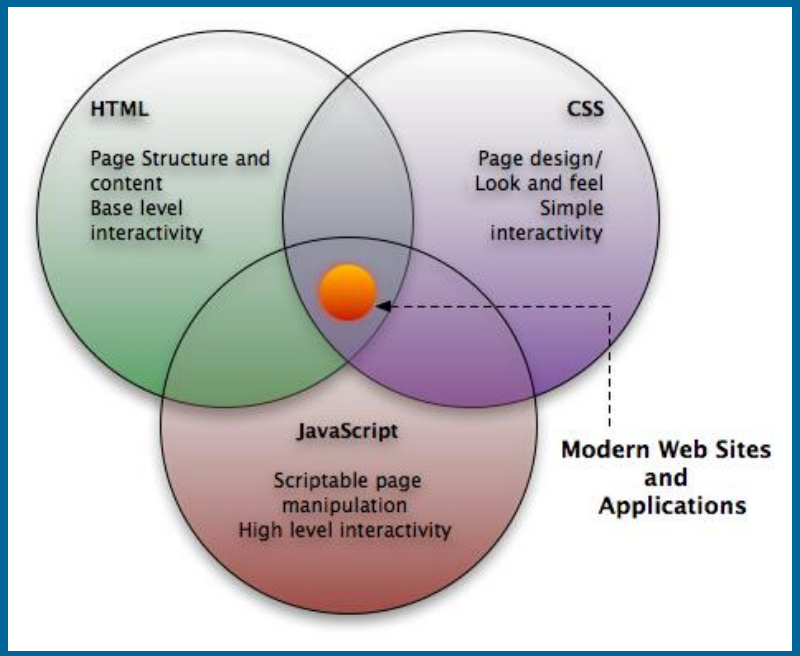
- Topics
  - What JavaScript is and what it isn’t
  - What JavaScript can do and what it can’t
  - JavaScript Terminology

JavaScript Basics

- History
  - JavaScript was introduced in 1995 by Netscape
  - Originally it was called *LiveScript*
  - Changed name to *JavaScript* in order to capitalize on the popularity of Sun's Java

JavaScript Basics

- What JavaScript Is
  - Simplified programming language that is included in an HTML document
  - Object-oriented language designed to interface with HTML & CSS
  - Dynamic content and interactive features



JavaScript Basics

- What JavaScript Is Not
  - JavaScript is not Java
    - Java is a full-featured, object-oriented programming language
    - JavaScript does employ some object oriented programming concepts
  - JavaScript is not a complete programming language
    - It is not compiled; it is embedded in an HTML document
    - It has no stand-alone output functions; it can only use the output functions of the browser

JavaScript Basics

- What JavaScript Can Do
  - Control browser features
  - Modify document appearance
  - Modify document content
  - Store and use information about the user
  - Interact with applets
  - Manipulate images
  - React to state of browser and client system

JavaScript Basics

- What JavaScript Can't Do
  - Four areas where JavaScript lacks power
    - No built-in graphical abilities
    - Can't read or write files on the user's system
    - Limited networking support; only supports downloading of content of a specific HTML document
    - No multithreading - CPU cannot multitask

JavaScript Basics

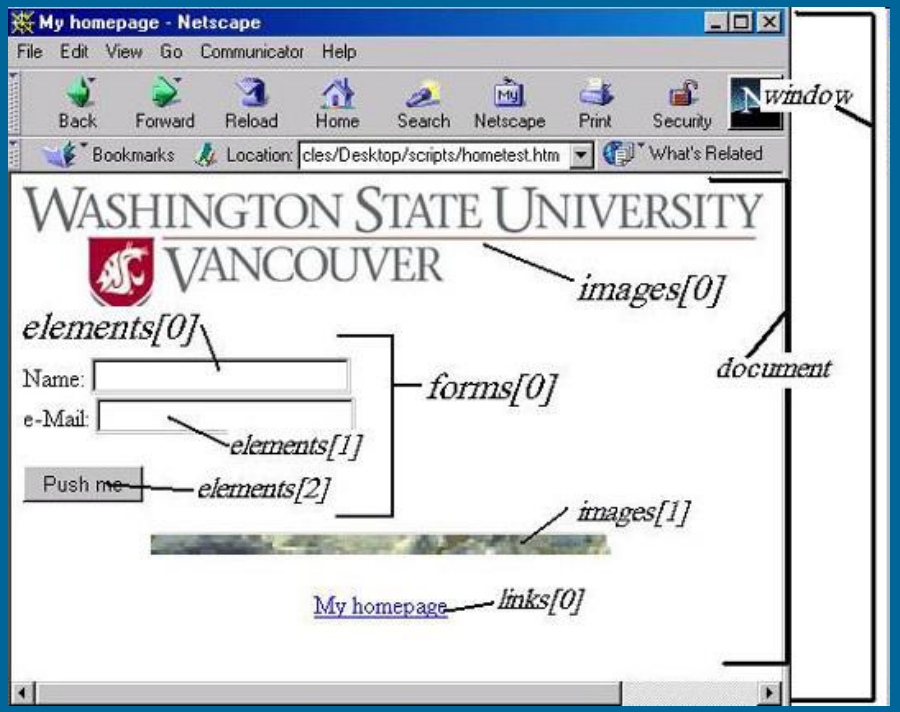
- Terminology
  - JavaScript is an Object-Oriented language
  - Object-Oriented Terminology
    - Object
    - Properties
    - Methods

object-orientation

```
function Part(name,cost) { // constructor is the class
    this.name=name; // define and initialize properties
    this.cost=cost;     // "this" is always explicit
};

var partBolt=new Part("bolt",1.99);     // instantiation
assert(partBolt.constructor == Part);           // type test
assert(partBolt instanceof Part);               // ancestry test
assert(Part.prototype.isPrototypeOf(partBolt)); // type test

assert(typeof(partBolt) == "object");           // not a type test
assert(partBolt.name == "bolt" && partBolt.cost == 1.99);
var partNut=new Part ("nut",0.10);
assert(partNut.name == "nut" && partNut.cost == 0.10);

Part.prototype.description=function() {  // methods
    return this.name+" $"+this.toFixed(2);
}
assert(partBolt.description() == "bolt $1.99");
assert(partNut.description() == "nut $0.10");
// Whatever the prototype contains, all instances contain:
Part.prototype.toString=function() { return this.name; }
assert(partBolt.toString() == "bolt");
var a=[partBolt,partNut];  assert(a.join() == "bolt,nut");

Part.CostCompare=function(l,r) {    // class method
    return l.cost - r.cost;
}
a.sort(Part.CostCompare);    assert(a.join() == "nut,bolt");

function WoodPart(name,cost,tree) {       // inheritance
    Part.apply(this,[name,cost]); // base constructor call
    this.tree=tree;
}
WoodPart.prototype=new Part(); // clone the prototype
WoodPart.prototype.constructor=WoodPart;
var tpick=new WoodPart("toothpick",0.01,"oak");
assert(tpick.name == "toothpick");
assert(tpick instanceof Part);  // proof of inheritance

var a=[partBolt,partNut,tpick]; // polymorphism sorta
assert(a.sort(Part.CostCompare).join() == "toothpick,nut,bolt");
assert(a[0].tree == "oak" && a[1].tree == null);
assert(a[0] instanceof WoodPart);
assert(!(a[1] instanceof WoodPart));

assert("tree" in tpick);    // membership test - in operator
assert(!("tree" in partBolt));

WoodPart.prototype.description=function() { // override
    // Calling base class version of description() method:
    var dsc=Part.prototype.description.apply(this,[]);
    return dsc+" ("+this.tree+")";  // and overriding it
}
assert(tpick.description() == "toothpick $0.01 (oak)");
assert(partBolt.description() == "bolt $1.99");

assert(eval("2+2") == 4);
if (typeof(Error) == "function") { // Safe exception catching
    eval("try { dangerous(); } catch (e) { oops(e); }");  ★
}
```

JavaScript Basics

- Terminology
  - Object = Web Browser Elements
    - Window
    - Document
    - Forms
    - Images



JavaScript Basics

- Terminology
  - Properties
    - Items belonging to a web browser object
    - Further define an object; changing a property can alter the object
    - Examples
      - documents have titles
      - forms have checkBoxes
      - windows have a location

JavaScript Basics

- Terminology
  - Methods = Object behaviors
    - Specifies what an object does or how it functions
    - Examples
      - Buttons click( )
      - Windows open( )
      - Documents write( )
    - the ( ) occurs with all JavaScript methods; often times additional information (called an argument) is placed inside the parenthesis

JavaScript Basics

- Terminology
  - Events = actions the user performs
    - moving a mouse
    - submitting a form
  - Event Handlers
    - JavaScript commands that deal with user events

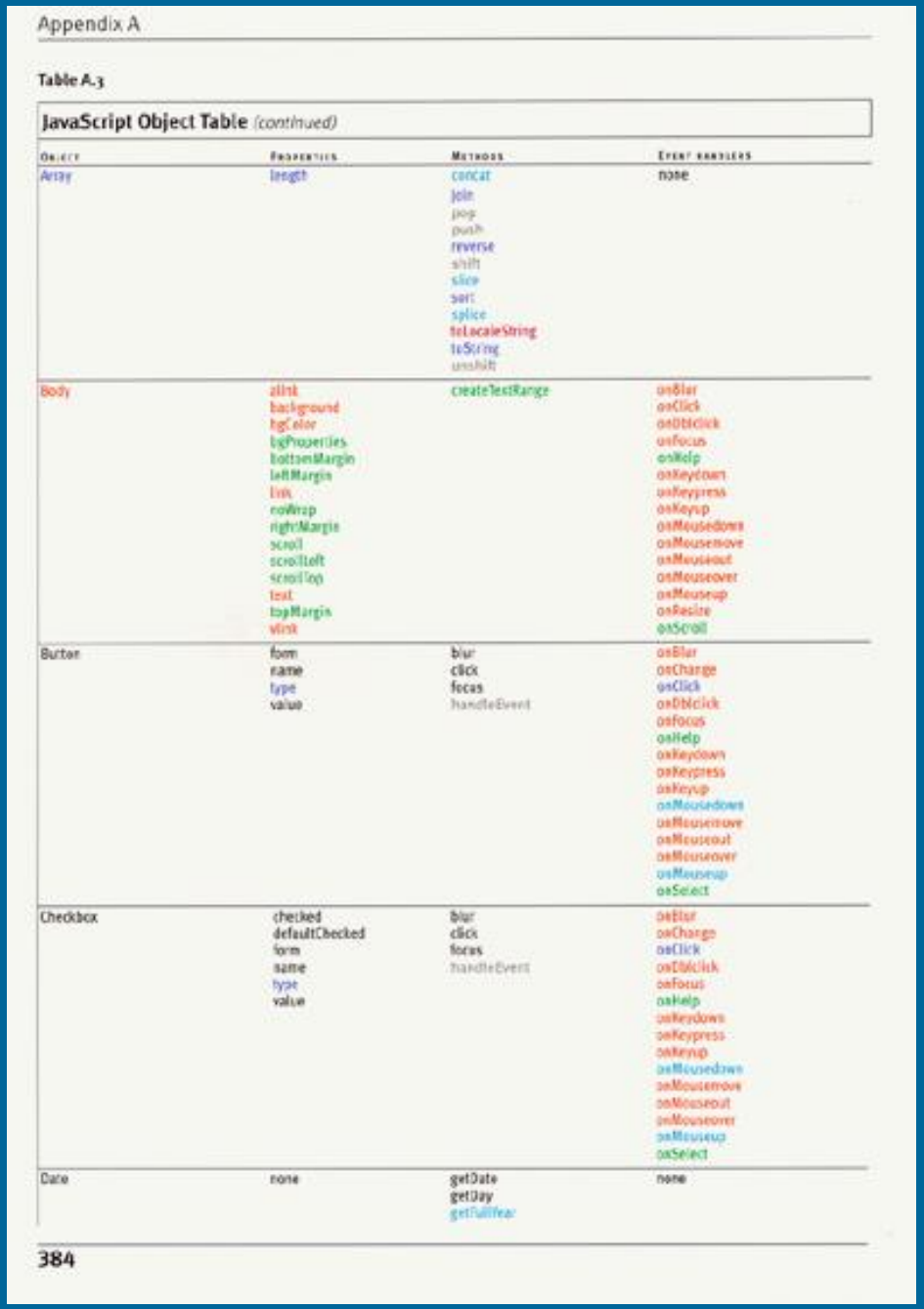
Event	Event Handler
Cursor moved over an object	onMouseover
Cursor moved off an object	onMouseout
User submitted a form	onSubmit
User left the window	onUnload

JavaScript Basics

- Terminology
  - Objects, Properties, Methods and Event Handlers are put together to create instructions
  - *Dot-Syntax*
    - Object.property
      - document.bgColor
      - window.status
    - Object.method( )
      - document.write( )

JavaScript Object Table

Complete list of all JavaScript objects & their associated properties, methods, and event handlers



Appendix A

Table A.3

JavaScript Object Table *(continued)*

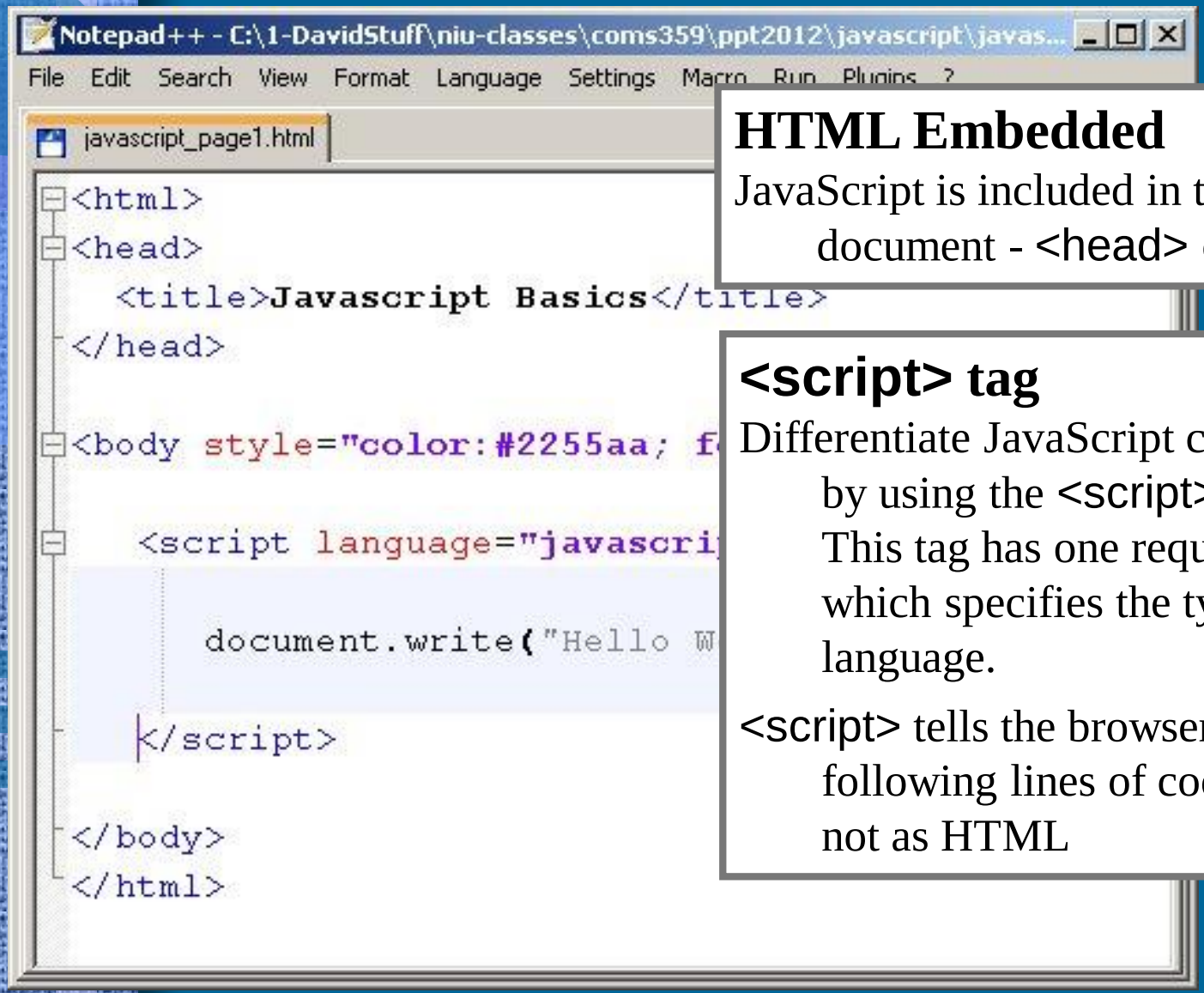
Object	Properties	Methods	Event handlers
Array	length	concat join pop push reverse shift slice sort splice toLocaleString toString unshift	none
Body	aLink background bgColor bgProperties bottomMargin leftMargin link noWrap rightMargin scroll scrollLeft scrollTop text topMargin vLink	createTextRange	onBlur onClick onDblClick onfocus onHelp onkeydown onkeypress onKeyup onMousedown onMousemove onMouseout onMouseover onMouseup onResize onScroll
Button	form name type value	blur click focus handleEvent	onBlur onCharge onClick onDblClick onfocus onHelp onkeydown onkeypress onkeyup onMousedown onMousemove onMouseout onMouseover onMouseup onSelect
Checkbox	checked defaultChecked form name type value	blur click focus handleEvent	onBlur onCharge onClick onDblClick onfocus onHelp onKeydown onKeypress onKeyup onMousedown onMousemove onMouseout onMouseover onMouseup onSelect
Date	none	getDate getDay getFullYear	none

384

JavaScript Basics

- Case Sensitivity
  - HTML is not case sensitive
    - <html> = <HTML> = <Html>
  - JavaScript is case sensitive
    - bgColor ≠ bgcolor ≠ BgColor ≠ BGCOLOR

JavaScript Basics



HTML Embedded

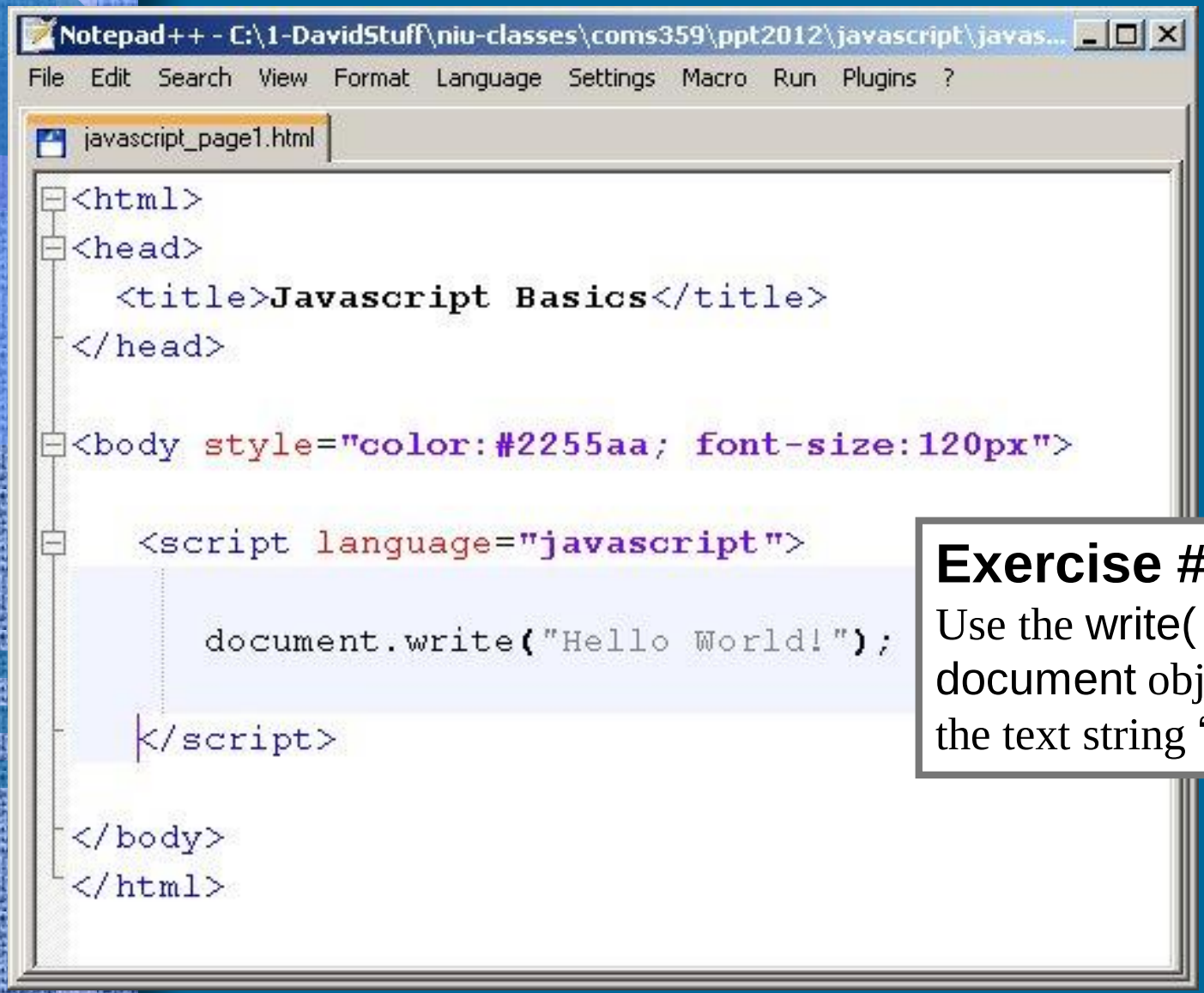
JavaScript is included in the HTML document - <head> or <body>

<script> tag

Differentiate JavaScript code from HTML by using the <script> container tag. This tag has one required attribute, which specifies the type of scripting language.

<script> tells the browser to interpret the following lines of code as script and not as HTML

JavaScript Basics



Exercise #1

Use the write( ) method of the document object to write out the text string "Hello World!"

JavaScript Application

- Objective
  - We will not have the time to consider every possible object, property, method and event handler
  - Instead we will look at a few common applications of JavaScript that are useful for web designers and learn about objects, properties, methods, and event handlers in the context of specific design tasks.
    - Alert Box
    - New Windows
    - Image Rollovers

JavaScript Application

- Alert Box
  - User feedback
  - Function
    - Provide a warning
    - Alert the user about something

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page2.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page2.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      alert("I will now erase your hard drive");

   </script>

</head>

<body style="color:#2255aa; font-size:4
   <script type="text/javascript">

      document.write("All files on C:/ have been erased");

   </script>

</body>
</html>
```

<head> Use the alert( ) method to warn the user. The browser automatically generates an *alert* box.

<body> Use the write( ) method of the document object to display a message

Parsing - Because the <head> loads before the <body>, the script in the <head> will execute first, providing the alert box prior to displaying the body content.

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page2.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page2.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      alert("I will now erase your hard drive");

   </script>

</head>

<body style="color:#2255aa; font-size:40px">

   <script type="text/javascript">

      document.write("All files on C:/ have been erased");

   </script>

</body>
</html>
```

Exercise #2

JavaScript Application

- Opening a New Window
  - Function
    - Click on a link and load a file in a new window
    - Control browser features of the window
  - Use
    - User interface
    - Layer multiple windows
    - Create advertising window

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page3.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page3.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      function newWindow()
        {window.open("javascript_page1.html",
                     "mywin","width=500,height=400");}

   </script>

</head>

<body style="color:#2255aa; font-size:40px">

<h1 style="font-size:80px">New Window</h1>
<p>This is my first JavaScript page:

   <a href="javascript:newWindow()">Exercise One</a></p>

</body>
</html>
```

Declare a function

Use the keyword function and name the function newWindow( )

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page3.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page3.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      function newWindow()
        {window.open("javascript_page1.html",
                     "mywin","width=500,height=400");}

   </script>

</head>

<body style="color:

<h1 style="font-siz
<p>This is my first

   <a href="javascr

</body>
</html>
```

Define the function

Use the open( ) method of the window object to open a new browser window. The content of this new window is the first javascript file. Name this new window "mywin" and specify its width and height in screen pixels

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page3.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page3.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      function newWindow()
        {window.open("javascript_page1.html",
                     "mywin","width=500,height=400");}

   </script>

</head>

<body style="color:#2

<h1 style="font-size:80px">New Window</h1>
<p>This is my first JavaScript page:

   <a href="javascript:newWindow()">Exercise One</a></p>

</body>
</html>
```

Call the function

The value of the href indicates that the function newWindow should be called or invoked, when the anchor text is clicked.

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page3.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page3.html

```
<html>
<head>
  <title>Javascript Basics</title>

   <script type="text/javascript">

      function newWindow()
        {window.open("javascript_page1.html",
                     "mywin","width=500,height=400");}

   </script>

</head>

<body style="color:#2255aa; font-size:40px">

<h1 style="font-size:80px">New Window</h1>
<p>This is my first JavaScript page:

   <a href="javascript:newWindow()">Exercise One</a></p>

</body>
</html>
```

Exercise #3

JavaScript Application

- Image Rollovers
  - Function - images change when user places mouse on them
  - Purpose- provide user with feedback; images respond to user actions
  - Used for creating interactive menus and buttons

JavaScript Application

- Rollover Requirements
  1) Need a pair of images for each rollover button
     - Regular
     - Highlighted
  2) Need to write an Event Handler that will swap the highlighted image for the regular image when the mouse is on top of the button and vice versa when the mouse is moved off the button

JavaScript Application

- Rollover Development Process
  1) Download buttons
     - http://gunkelweb.com/coms359/multimedia/rollover.html
     - Default File Names (do not change)
       - image1a.jpg
       - image1b.jpg
  2) Write HTML Document
     - Include JavaScript Event Handler

http://gunkelweb.com/coms359/multimedia/rollover.html

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page4.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page4.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

  <a href="http://www.niu.edu"
     onMouseover="document.image1.src='image1b.jpg'"
     onMouseout="document.image1.src='image1a.jpg'">

     <img src="image1a.jpg" border="0" name="image1" alt="enter">
  </a>

</body>
</html>
```

Begin with an anchor tag, because the button will be an active link to another page or site.

http://gunkelweb.com/coms359/multimedia/rollover.html

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page4.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page4.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

   <a href="http://www.niu.edu"
      onMouseover="document.image1.src='image1b.jpg'"
      onMouseout="document.image1.src='image1a.jpg'">

      <img src="image1a.jpg" border="0" name="image1" alt="enter">
   </a>

</body>
</html>
```

Put an <img> tag inside the anchor container tag. The value of the src attribute will be the first image (image1a.jpg). This image is given an arbitrary but unique name – image1

http://gunkelweb.com/coms359/multimedia/rollover.html

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page4.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page4.html

```
<html>
<head>
  <title>Java
</head>

<body>

  <a href="http://www.niu.edu"
    onMouseover="document.image1.src='image1b.jpg'"
    onMouseout="document.image1.src='image1a.jpg'">

    <img sr
  </a>

</body>
</html>
```

Include two JavaScript event handlers inside the opening anchor tag. The formal syntax of these event handlers is:

"object.name.src='imagefile'"

The onMouseover event handler inserts image1b.jpg, when the user places his/her mouse over the image.

The onMouseout event handler, inserts image1a.jpg, when the user moves the mouse off the image.

http://gunkelweb.com/coms359/multimedia/rollover.html

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page4.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page4.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

   <a href="http://www.niu.edu"
      onMouseover="document.image1.src='image1b.jpg'"
      onMouseout="document.image1.src='image1a.jpg'">

      <img src="image1a.jpg" border="0" name="image1" alt="enter">
   </a>

</body>
</html>
```

Exercise #4

http://gunkelweb.com/coms359/multimedia/rollover.html

JavaScript Application

- Add a second button
  - Follow same procedure

    - A pair of images
    - Event handler to swap the highlighted image for the regular image, when the user moves over it.
  - Modifications
    - The second image will need a different name; the name connects the image to the proper document object specified in the event handler
    - The image names will be different

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page5.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page5.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

   <a href="http://www.niu.edu"
      onMouseover="document.image1.src='image1b.jpg'"
      onMouseout="document.image1.src='image1a.jpg'">

      <img src="image1a.jpg" border="0" name="image1" alt="enter">
   </a>
   <br>
   <a href="http://www.gunkelweb.com"
      onMouseover="document.image2.src='image2b.jpg'"
      onMouseout="document.image2.src='image2a.jpg'">

      <img src="image2a.jpg" border="0" name="image2" alt="exit">
   </a>

</body>
</html>
```

Alter the name of the document object and change the value of the src to indicate the second set of images

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page5.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page5.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

   <a href="http://www.niu.edu"
      onMouseover="document.image1.src='image1b.jpg'"
      onMouseout="document.image1.src='image1a.jpg'">

      <img src="image1a.jpg" border="0" name="image1" alt="enter">
   </a>
   <br>
   <a href="http://www.gunkelweb.
      onMouseover="document.image2.src='image2b.jpg'"
      onMouseout="document.image2.src='image2a.jpg'">

      <img src="image2a.jpg" border="0" name="image2" alt="exit">
   </a>

</body>
</html>
```

Alter the src of the <img> and change the value of the name attribute

Notepad++ - C:\1-DavidStuff\niu-classes\coms359\ppt2012\javascript\javascript_page5.html

File Edit Search View Format Language Settings Macro Run Plugins ?

javascript_page5.html

```
<html>
<head>
  <title>Javascript Basics</title>
</head>

<body>

   <a href="http://www.niu.edu"
      onMouseover="document.image1.src='image1b.jpg'"
      onMouseout="document.image1.src='image1a.jpg'">

      <img src="image1a.jpg" border="0" name="image1" alt="enter">
   </a>
   <br>
   <a href="http://www.gunkelweb.com"
      onMouseover="document.image2.src='image2b.jpg'"
      onMouseout="document.image2.src='image2a.jpg'">

      <img src="image2a.jpg" border="0" name="image2" alt="exit">
   </a>

</body>
</html>
```

Exercise #5

Summary

- JavaScript
  - Introduction to JavaScript
  - JavaScript Basics
  - Three common JavaScript Applications
- Project #3
  - Must include JavaScript
  - Alert box, Image rollover, new Window, etc.

Preview

- Continue with Javascript
  - Slideshows

Preview

- Meta-Information & Search Engine Optimization
  - Duckett - ch. 8: Extra Markup (pp. 176-198)
  - Duckett - ch. 19: Practical Information (pp. 476-492)
  - Miller - ch. 8: Search Engine Optimization (pp. 200-217)
  - Miller - ch. 10: Analysis (pp. 248-255)
  - Google - Search Engine Optimization Starter Guide