

# CGS 3175: Internet Applications Fall 2007

## Introduction To JavaScript – Part 2

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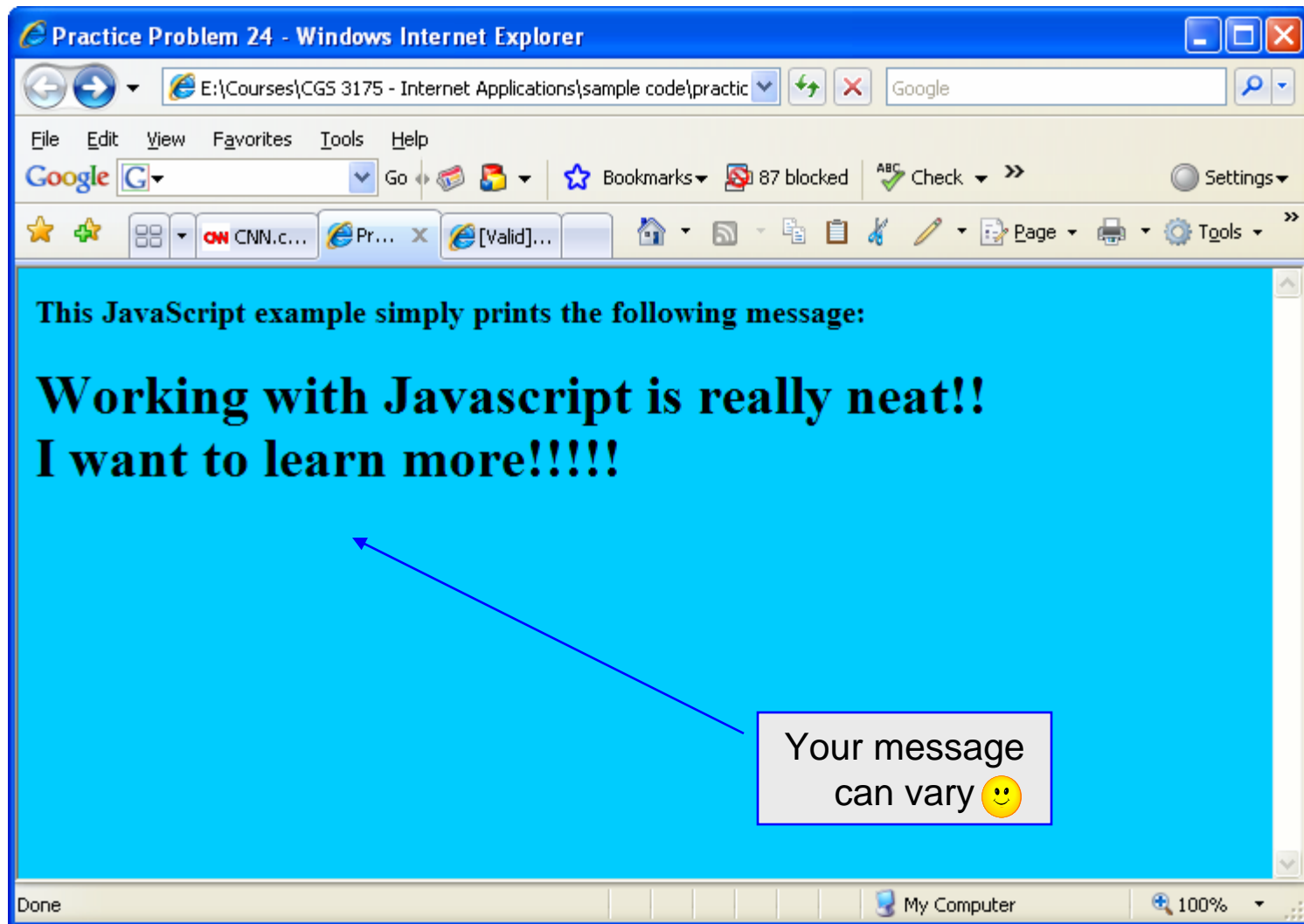


## Things to Try Yourself

23. Create a 5<sup>th</sup> and 6<sup>th</sup> version of the XHTML document in this set of notes using the external script library. In version 5, put the `<script>` element before the `<h1>` element and in version 6, put the `<script>` element after the `<h1>` element. What effect does this have on the way the browser displays the page? Is the effect similar to any of the other versions we already created?
24. Using version 2 (page 17) of the XHTML document in this set of notes as a template. Modify the document using the JavaScript statement `document.writeln(" your text here ");` so that the new version of the document simply prints the message in the user's browser as shown on the next page.



# Things to Try Yourself



# Triggering A Script

- In the examples from part 1 of the JavaScript notes, the scripts were triggered automatically. In other words, the visitor didn't need to do anything for the script to execute.
- These were “automatically triggered” scripts. Sometimes you do not want the script to run until the visitor does something to trigger it. For example, you might want to run a script when the visitor mouses over a particular image or link, or when a page is loaded.
- These actions – mousing over or loading a page – are called **intrinsic events**.
- There are currently 18 predefined intrinsic events you can use as triggers to determine when a script will run. The table on the next couple of pages list these intrinsic events and which elements they work with.



# Table of Intrinsic Events

Event	Works With	When
onblur	<a>, <area>, <button>, <input>, <label>, <select>, <textarea>	The visitor leaves an element that was previously in focus (see onfocus below).
onchange	<input>, <select>, <textarea>	The visitor modifies the value or contents of the element.
onclick	All elements <i>except</i> <applet>, <base>, <basefont>,  , <font>, <frame>, <frameset>, <head>, <html>, <iframe>, <meta>, <param>, <script>, <style>, <title>	The visitor clicks on the specified area.
ondblclick	Same as for onclick	The visitor double clicks the specified area.
onfocus	<a>, <area>, <button>, <input>, <label>, <select>, <textarea>	The visitor selects, clicks, or tabs to the specified element.
onkeydown	<input> (of type name or password), <textarea>	The visitor types something in the specified element.
onkeypress	<input> (of type name or password), <textarea>	The visitor types something in the specified element.
onkeyup	<input> (of type name or password), <textarea>	The visitor lets go of the key after typing in the specified element.



## Table of Intrinsic Events (continued)

Event	Works With	When
onload	<body>, <frameset>	The page is loaded in the browser.
onmousedown	Same as for onclick	The visitor presses the mouse button down over the element.
onmousemove	Same as for onclick	The visitor moves the mouse over the specified element after having pointed at it.
onmouseout	Same as for onclick	The visitor moves the mouse away from the specified element after having been over it.
onmouseover	Same as for onclick	The visitor points the mouse at the element.
onmouseup	Same as for onclick	The visitor lets the mouse button go after having clicked on the element.
onreset	form (not input of type reset)	The visitor clicks the form's reset button.
onselect	<input> (of type name or password), <textarea>	The visitor selects one or more characters or words in the element.
onsubmit	form (not input of type submit)	The visitor clicks the form's submit button.
onunload	<body>, <frameset>	The browser loads a different page after the specified page had been loaded.

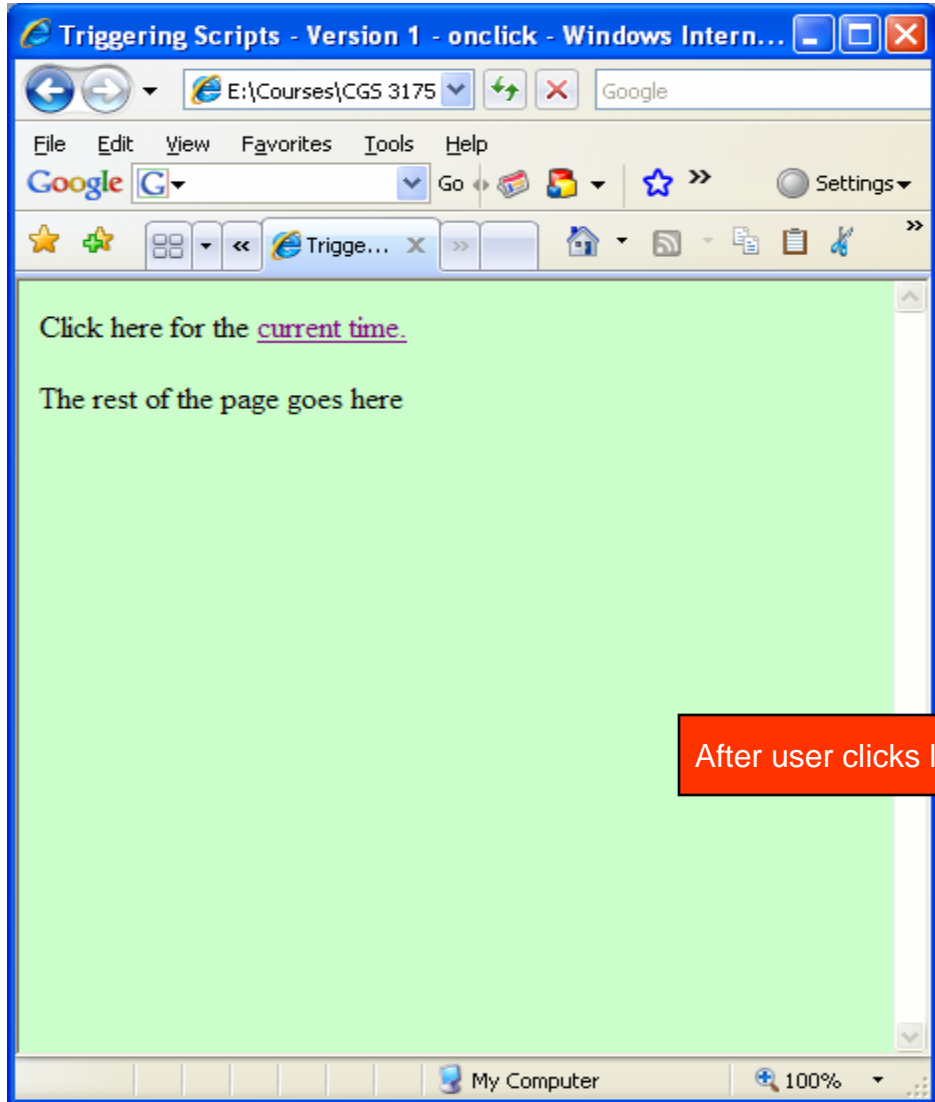


# Using An Intrinsic Event – onclick

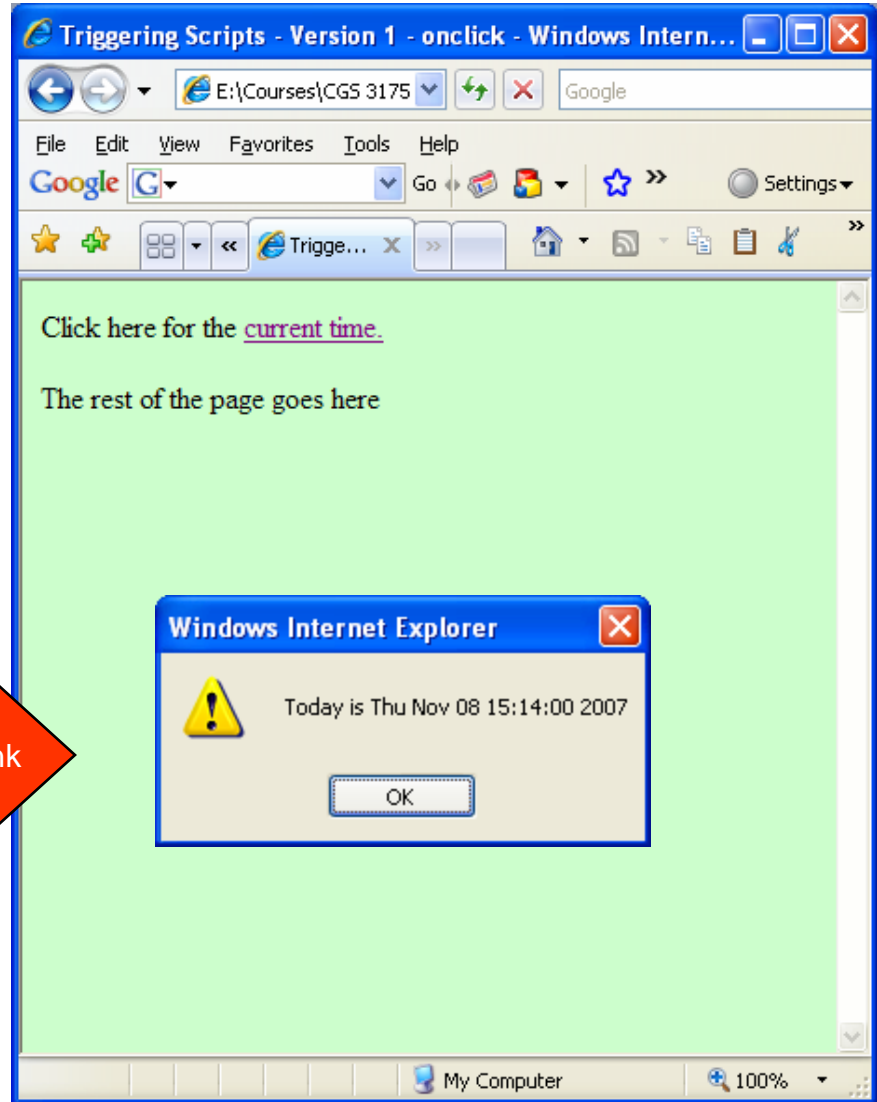
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Triggering Scripts - onclick </title>
<style type="text/css">
<!-- body {background-color:#CCFFCC; }
-->
</style>
</head>
<body>
<p>Click here for the 
```



# Using An Intrinsic Event – onclick



After user clicks link



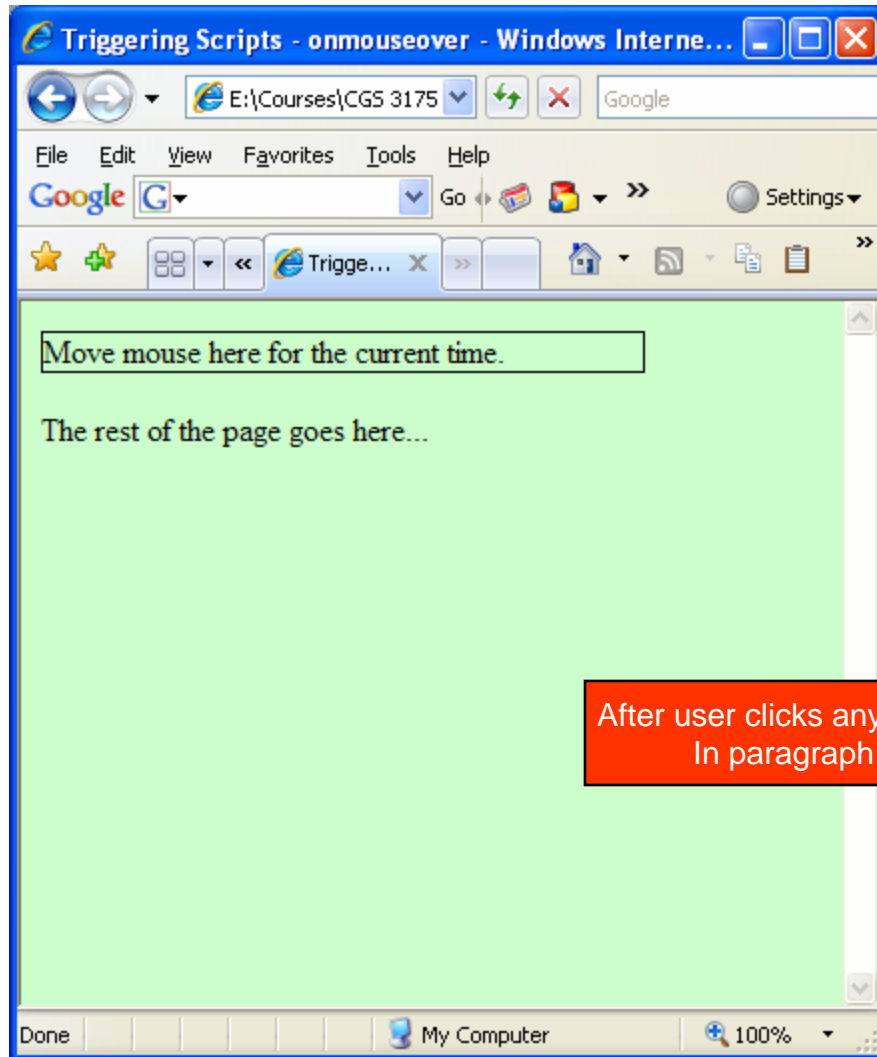


# Using An Intrinsic Event – onmouseover

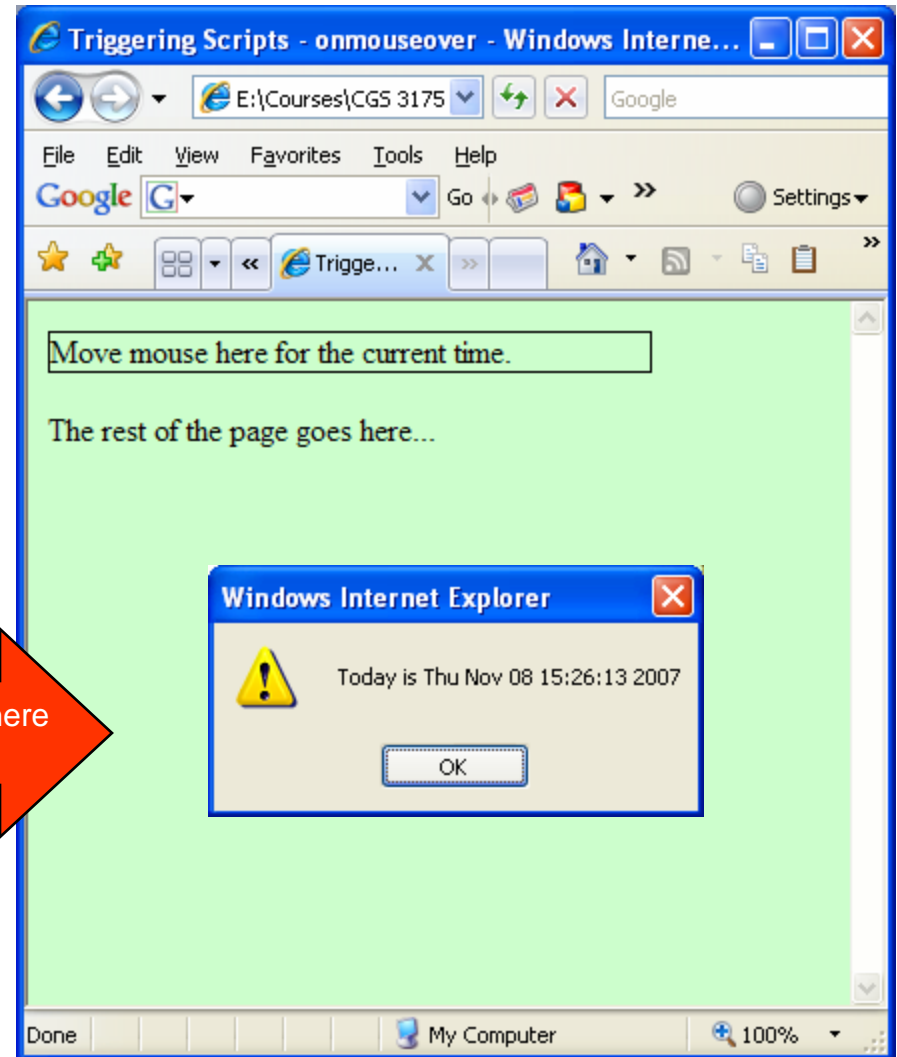
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Triggering Scripts - onmouseover </title>
<style type="text/css">
<!--  body {background-color:#CCFFCC; }
      div {border:1px solid black; width:300px; }
-->
</style>
</head>
<body>
<div>
<p onmouseover="alert('Today is '+ Date() ) ">Move mouse
here for the current time.</p>
</div>
<p>The rest of the page goes here...</p>
</body>
</html>
```



# Using An Intrinsic Event – onmouseover



After user clicks anywhere  
in paragraph

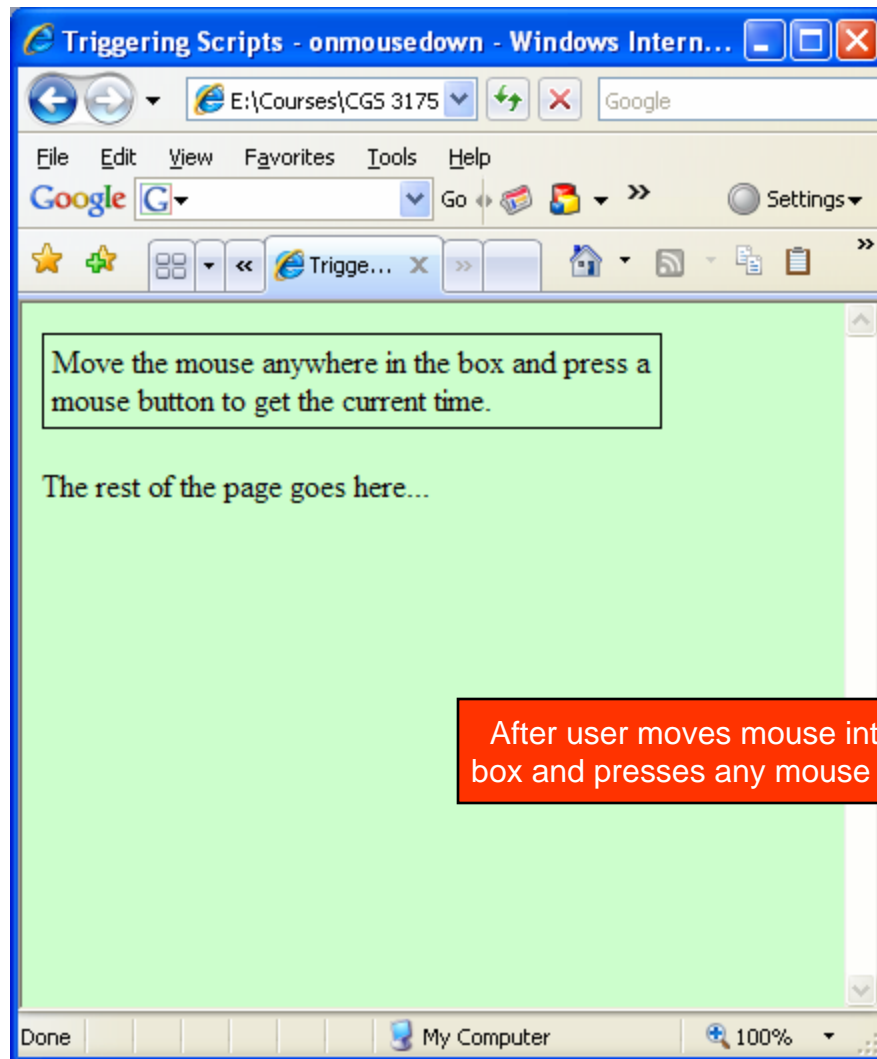


# Using An Intrinsic Event – onmousedown

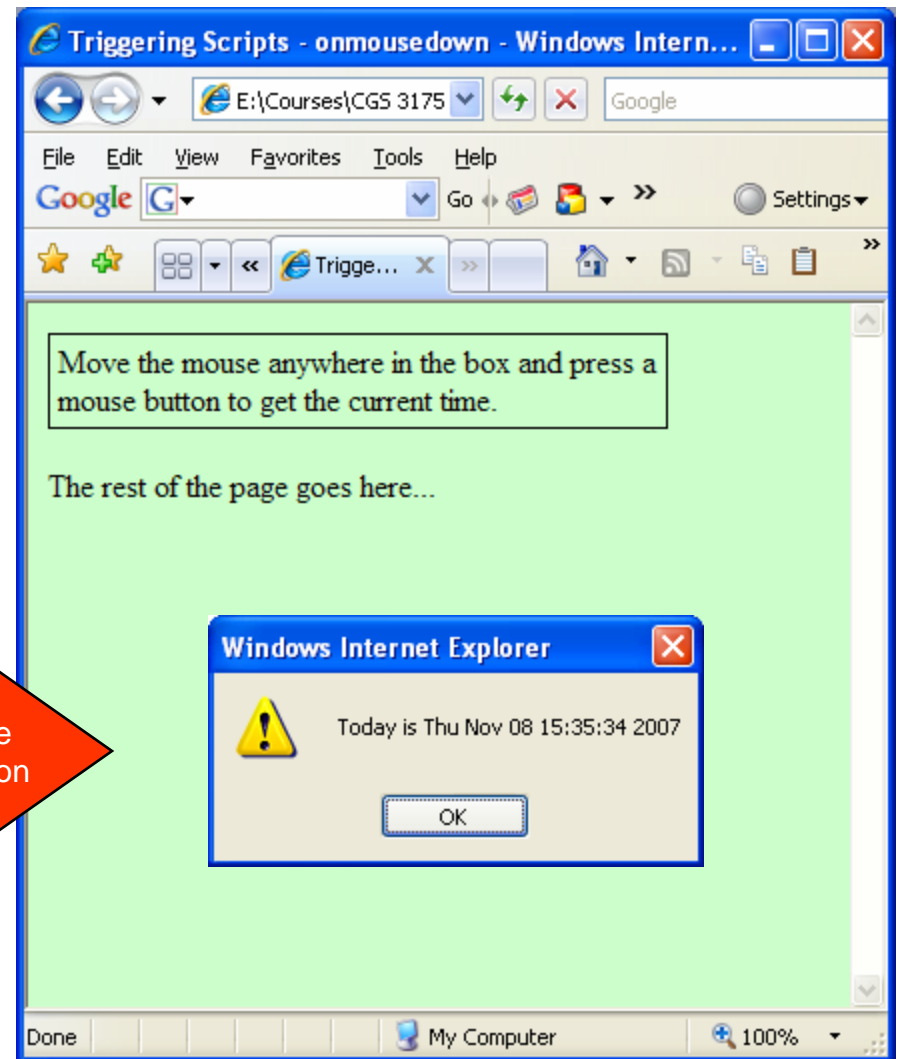
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Triggering Scripts - onmousedown </title>
<style type="text/css">
<!-- body {background-color:#CCFFCC; }
    div {border:1px solid black; width:300px; padding:4px 4px
4px 4px; }
-->
</style>
</head>
<body>
<div>
<p onmousedown="alert('Today is '+ Date() ) ">Move the mouse
anywhere in the box and press a mouse button to get the current
time.</p>
</div>
<p>The rest of the page goes here...</p>
</body>
</html>
```



# Using An Intrinsic Event – onmousedown



After user moves mouse into the box and presses any mouse button



## Creating A Button To Trigger A Script

- You can associate a button with a script to give your visitor full control over when the script should be executed.
- As we did earlier, you simply create a button, then associate a script with the `onclick` intrinsic event. You can use any intrinsic event with a button, but `onclick` makes the most sense.
- You can also add images to buttons. Simply insert the image between the opening and closing button tags.
- The example on the next page illustrates using a button to trigger a script.



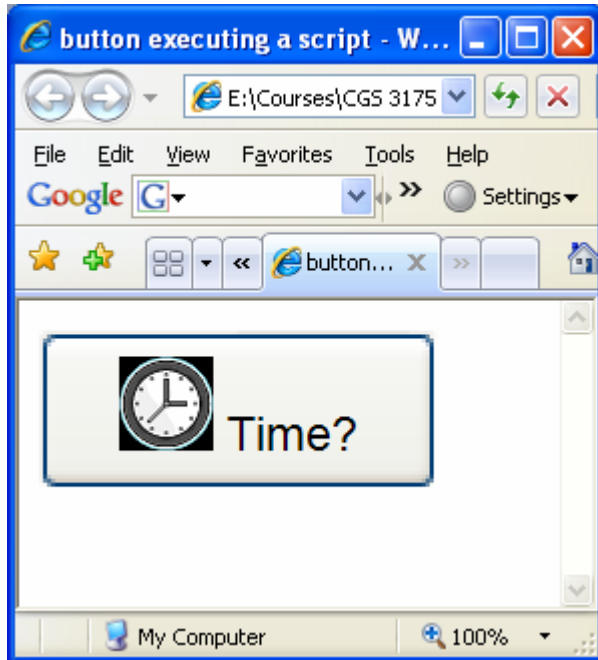
# Creating A Button To Trigger A Script

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>button executing a script </title>
</head>
<body>
<div>
<button type="button" name="time" onclick="alert('Today is '+ Date() )"
style="font: 1.5em Helvetica, Arial, sans-serif; background:blue:
color:black; padding:.3em" >
Time?</button>
<!-- <button type="button" name="time" onclick="alert('Today is '+
Date() )" style="font: 1.5em Helvetica, Arial, sans-serif;
background:blue: color:black; padding:.3em">Time? Time?</button> -->
<!-- <button type="button" name="time" onclick="alert('Today is '+
Date() )" style="font: 1.5em Helvetica, Arial, sans-serif;
background:blue: color:black; padding:.3em"></button> -->
</div>
</body>
</html>
```

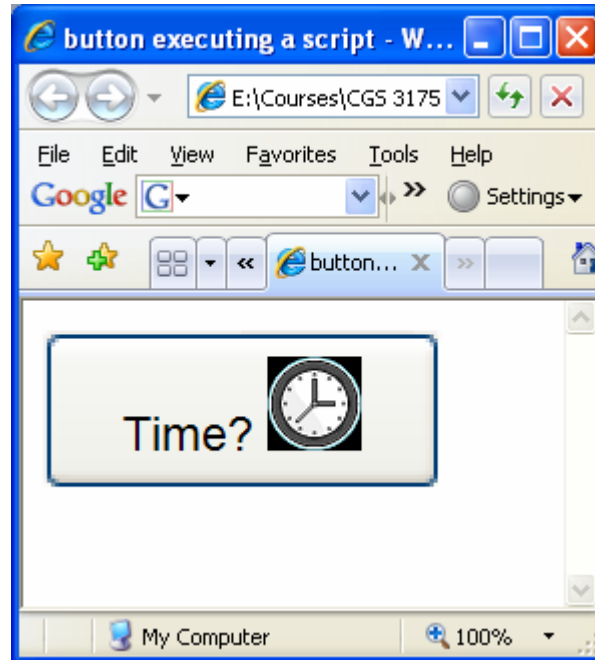
The three different lines show different versions of the button – try all three of them.



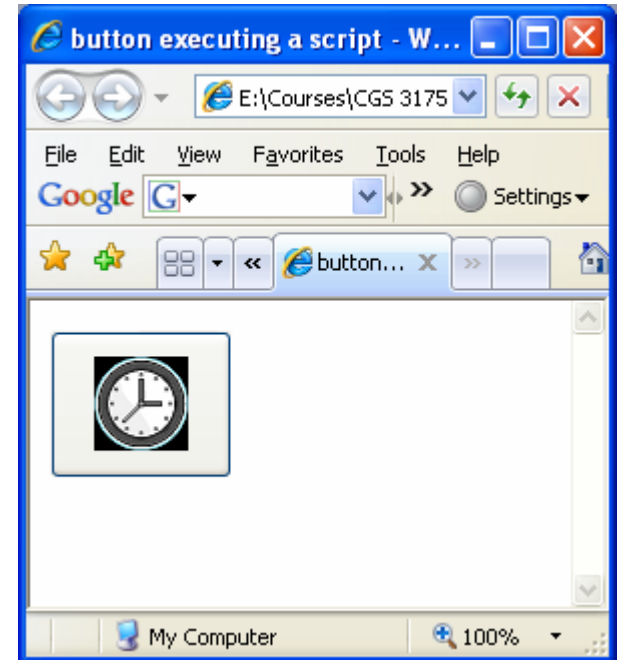
# Creating A Button To Trigger A Script



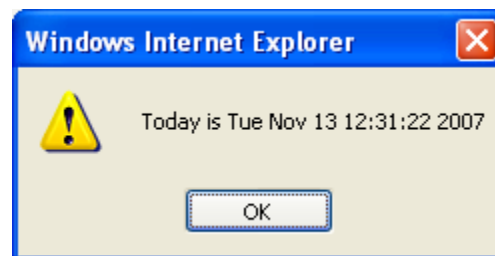
Using first line



Using second line



Using third line



Window when script executes



## Things to Try Yourself

25. Modify any of the example XHTML documents that illustrate the intrinsic events to try some of the intrinsic events that were not illustrated in the notes such as `onmouseup`.

