ITMD-461 CLASS 13 APRIL 14, 2015

TONIGHT'S AGENDA

- JavaScript Event Handling
- JavaScript DOM Scripting
- Google Maps API Introduction
- Readings & Assignments

JAVASCRIPT EVENT HANDLING

Event Handling

Three Methods (see page 478)

- As attribute on HTML element
- As a method attached to a DOM object
- Using the add event handler method of a object
 - object.addEventListener("click", myFunction);
 - IE < 9 needs to use a different format attachEvent
 - object.attachEvent('onclick', modifyText);

```
https://developer.mozilla.org/en-US/docs/DOM/element.addEventListener
function addEventHandler(elem,eventType,handler) {
  if (elem.addEventListener) {
    elem.addEventListener (eventType,handler,false);
} else if (elem.attachEvent) {
    elem.attachEvent ('on' + eventType,handler);
}}
```

JAVASCRIPT DOM

- Document Object Model (DOM)
- Object representation of a HTML or XML Document
- All elements are represented by objects
- DOM is an API that can be used in many languages
- JavaScript uses DOM scripting to modify the elements on a page
- DOM is a collection of nodes in a tree (see 486)
- Also provides standard methods to traverse the DOM, access elements and modify elements

JAVASCRIPT DOM

- Accessing the DOM elements
- Use methods of the document object (see p 487)
- Most common by id
 - var a = document.getElementById("elementid");
- Can also access by class, tag, selector
- Use the object.getAttribute("src"); method to get a attribute's value from an object
- Set of methods to manipulate DOM objects. Some of the most common are listed on page 489
- Can use object.innerHTML to set the HTML contents of an element.
- Can use object.value to get the contents of a form control

JAVASCRIPT DOM

JavaScript & DOM Reference

http://reference.sitepoint.com/javascript/domcore

http://www.javascriptkit.com/domref/elementproperties.shtml

https://developer.mozilla.org/en-US/docs/DOM/element

https://developer.mozilla.org/en/docs/JavaScript

JAVASCRIPT OBJECT REVIEW

JavaScript Object Literal format

An object literal is a comma separated list of name value pairs wrapped in curly braces.

```
var myObject = {
    stringProp: 'some string',
    numProp: 2,
    booleanProp: false
};
```

Value can be any JavaScript Datatype including a function or other object.

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GOOGLE MAPS API

GOOGLE MAPS JAVASCRIPT API

- Google Maps JavaScript API v3
 - https://developers.google.com/maps/documentation/javascript/
- Load the js API file from the googleapis server
 - API Key parameter is currently not really required
- Map options are set using a JavaScript Object
- Container element is a DOM element Typically a Div
- Pass the container element and options to the maps constructor.
 - var map = new google.maps.Map(element, options);
- Put all this in a function that runs when the document loads.
- Look at API docs for examples

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READINGS AND ASSIGNMENTS



READING & ASSIGNMENTS

Book

- Read all JavaScript Chapters. Ch 19-20
- Look through additional JavaScript Books I uploaded to Blackboard. They will give you more details regarding jQuery.

Assignment (Everything that is remaining)

- Lab 7 Due Saturday, April 25 11:59pm Chicago Time
- Final Project Due Saturday, May 2 11:59pm Chicago Time
- Basic JavaScript Quiz will be assigned sometime next week.
- Final Exam will be a blackboard exam similar to midterm and will be assigned during finals week.