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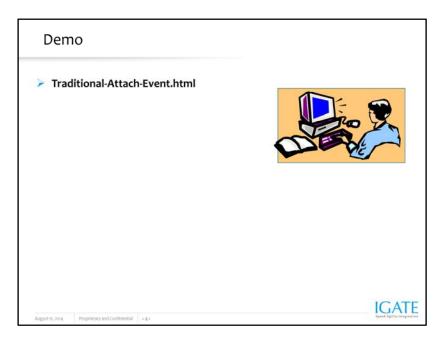
# Lesson Objectives

- Traditional event attachment technique drawbacks
- > jQuery Event Model Benefits
- jQuery Events
- Handling Events
- Binding to Events
- Using live(), die() delegate() and undelegate()
- Handling Hover Events
- Working with jQuery Animations





# Event attachment technique Most Browsers myButton.addEventListener('click',function() { },false); Internet Explorer myButton.attachEvent('onclick',function() { });

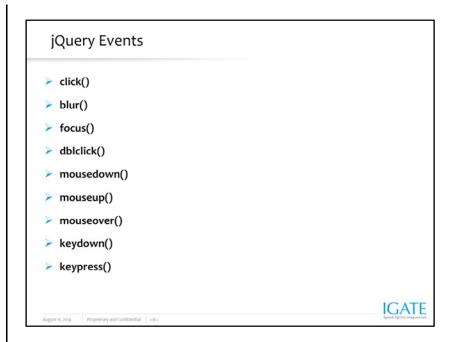


# jQuery Event Model Benefits

- > Events notify a program that a user performed some type of action
- jQuery provides a cross-browser event model that works common across all browsers.
- jQuery event model is simple to use and provides a compact syntax

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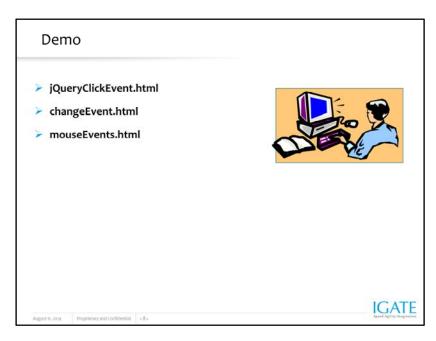


# Handling Click Events

- .click(handler(eventObject)) is used to listen for a click event or trigger a click event on an element
  - \$('#submitButton').click(function() { alert('Clicked') });
- Raising a click event from with in another function
  - \$('#otherID').click(function() { \$('#myID').click(); }); this would fire when the element otherID was clicked and raise the click event for myID

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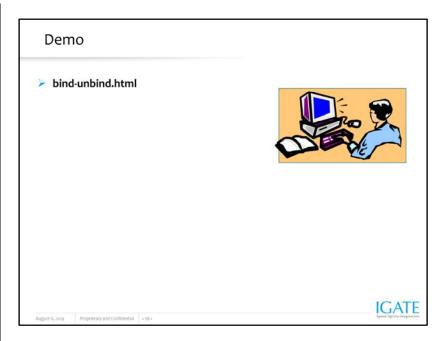


# bind() and unbind() Method

- bind() method is used to bind events dynamically
- bind(eventType,handler(eventObject)) attaches a handler to an event for the selected element(s).
  - \$('#submitButton').bind('click', function() { //handle event });
  - .click() is the same as .bind('click')
- .unbind(event) is used to remove handler previously bound to an element.
  - \$('#submitButton').unbind();
  - \$('#submitButton').unbind('click'); unbind specific event
- bind() allows multiple events to be bound to one or more elements
  - \$('#targetDiv').bind('mouseenter mouseleave', function() { //handle event });







# live() and delegate() functions

- live() and delegate() allow new elements added into the DOM to automatically be attached to an event.
- live() method allows binding of event handlers to elements that match a selector, including future elements. Events bubble up to the document object
- delegate() method is a replacement for live() in jQuery 1.4. It attaches an event handler directly to the selector context

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# Using live() and die()

- Event handlers can be set using live()
- The document object handles the event by default
- It works even when new objects were added in to the DOM
  - \$('.someclass').live('click',somefunction) Any element added with .someclass will have the click event
- Stop live event handling using die()
  - \$('.someclass').die('click',somefunction)

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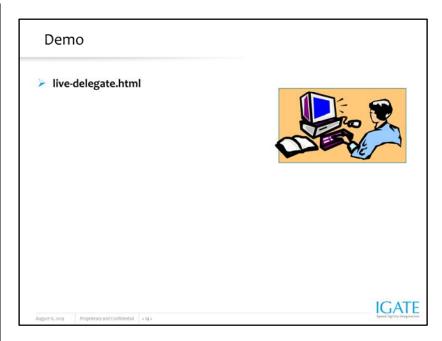
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# Using delegate() and undelegate()

- Newer version of live() added in jQuery 1.4
- The context object handles the event by default rather than the document object.
- Works even when new objects are added into the DOM.
  - \$('#targetDiv').delegate('div','click',somefunction);
- Stop delegate event handling using undelegate()

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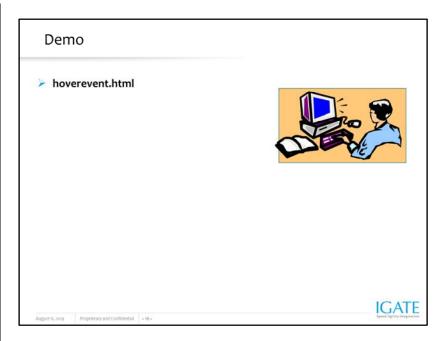


### **Hover Events**

- Hover events can be handled using hover()
  - \$(selector).hover(handlerIn,handlerOut)
  - handlerIn is equivalent to mouseenter and handlerOut is equivalent to mouseleave
- Another option is \$(selector).hover(handlerInOut)
- > Fires the same handler for mousenter and mouseleave events

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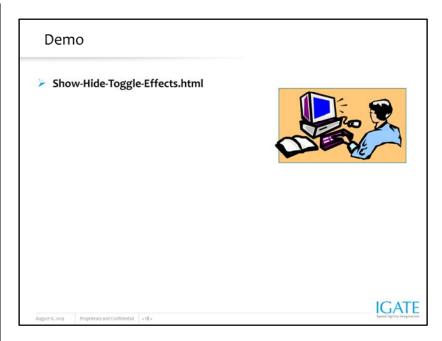


# Showing and Hiding Elements

- To set a duration and a callback function
  - show(duration, callback)
  - duration is the amount of time taken (in milliseconds), and callback is a callback function jQuery will call when the transition is complete.
- The corresponding version of hide()
  - hide(duration, callback)
- To toggle an element from visible to invisible or the other way around with a specific speed and a callback function, use this form of toggle()
  - toggle(duration, callback)

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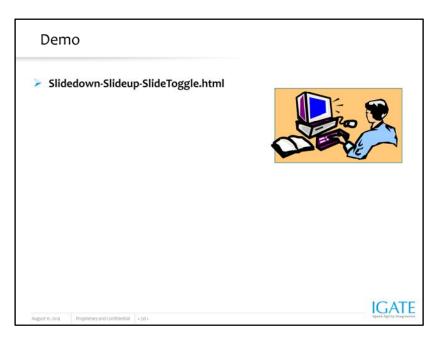


# jQuery Sliding Effects

- The jQuery slide methods gradually change the height for selected elements.
- jQuery has the following slide methods:
  - \$(selector).slideDown(speed,callback)
  - \$(selector).slideUp(speed,callback)
  - \$(selector).slideToggle(speed,callback)
- The speed parameter can take the following values: "slow", "fast", "normal", or milliseconds.
- The callback parameter is the name of a function to be executed after the function completes.

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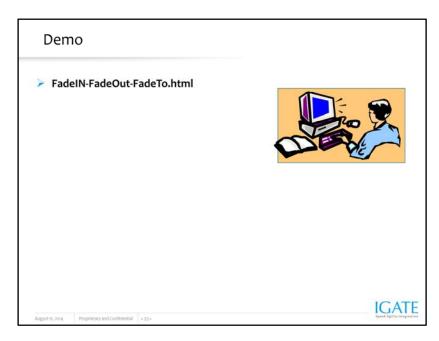




# jQuery Fading Effects

- The jQuery fade methods gradually change the opacity for selected elements.
- jQuery has the following fade methods:
  - \$(selector).fadeIn(speed,callback)
  - \$(selector).fadeOut(speed,callback)
  - \$(selector).fadeTo(speed,opacity,callback)
- The speed parameter can take the following values: "slow", "fast", "normal", or milliseconds.
- The opacity parameter in the fadeTo() method allows fading to a given opacity.
- The callback parameter is the name of a function to be executed after the function completes.
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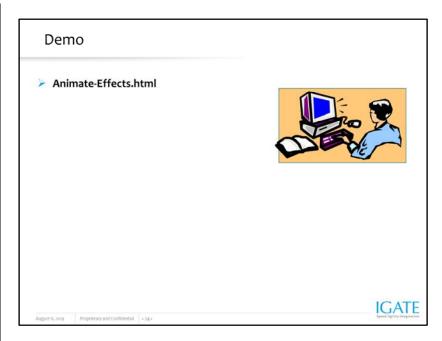


# Creating Custom Animation

- Custom animation can be created in jQuery with the animate() function
  - animate(params, duration, callback)
  - params contains the properties of the object you're animating, such as CSS properties, duration is the optional time in milliseconds that the animation should take and callback is an optional callback function.

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## Summary

- jQuery simplifies handling cross-browser event attachments
- bind() and unbind() provide a flexible way to work with different events



- live() and delegate() both allow future child elements to be wired to event handlers
- The hover() function provides a simple way to handle mouseenter and mouse leave events
- Combine hover() with toggleClass() to easily swap out css classes on an element
- Animations can be easily done via jQuery Methods



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### Lab

- 5.1. Adding and Removing Style at runtime using Click Event
- > 5.2. Preventing Cut-Copy-Paste in textbox
- 5.3. Identifying mouse button
- > 5.4. Limiting number of characters in textarea
- > 5.5. Check/Uncheck all checkboxes at once
- 5.6. Event Triggering
- > 5.7. Animating List as tree view





# **Review Question**

What is the difference between \$('#myDiv').bind('click',function(){// do something});



- Thybre function() (i) do somethings),
- bind() binds an event listening function to the click event, whereas click() triggers it.
- What does this do: \$('#myDiv').trigger('click');

A. There is no difference. They do the same.

- A. It simulates a click on the element and runs all the event handlers associated with it.
- B. It sets up a trigger. When a click occurs, the trigger is going to be activated.

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