**JQuery**

**Java Script Library**

**BASIC :**

<script> element must point to a copy of jQuery

**jQuery Syntax:**

**$(*selector*).*action*()**

$ - define/access jQuery

(*selector*) - "query (or find)" HTML elements

*action*() - to be performed on the element(s)

**Ready:**

$( document ).ready(function() {

});

*Description:* Specify a function to execute when the DOM is fully loaded.

**JQUERY SELECTORS:**

* select and manipulate HTML element(s)
* "find" HTML elements [ name, id, classes, types, attributes, values of attributes and much more]
* start with the dollar sign and parentheses: $().

**Types:**

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| **Name** | **Syntax** | **Description** | **Code** |
| Element | $("p") | selects elements based on the element name. | $("button").click(function(){         $("p").hide();     }); |
| #id | $("#id") | To find HTML element using element id name | $("button").click(function(){         $("#id").hide();     }); |
| .class | $(".class") | To find HTML element using element class name | $("button").click(function(){         $(".class").hide();     }); |
|  | $("\*") | hide all elements  (display Empty page ) | $("button").click(function(){  $("\*").hide(); }); |
|  | $(this) | Hide current  (button)Element | $("button").click(function(){  $(this).hide(); }); |
|  | $("p.intro") | Selects all <p> elements with class="intro" | $("button").click(function(){  $("p.intro").hide();});  <p class="intro">**This is a paragraph**.</p> |
|  | $("p:first") | Selects the first <p> element | $("button").click(function(){  $("p:first").hide(); });  <p>**This** </p><p>is</p> |
|  | $("ul li:first") | Selects the first <li> element of the first <ul> | $("button").click(function(){  $(" ul li:first").hide();});  <ul><li>**Coffee**</li>  <li>Tea</li></ul> |
|  | $("ul li:first-child") | Selects the first <li> element of every <ul> | $("button").click(function(){  $("ul li:first-child").hide(); });  <ul><li>**Coffee**</li>  <li>Milk</li></ul>  <ul><li>**Coffee**</li>  <li>Milk</li></ul> |
|  | $("[href]") | Selects all elements with an href attribute | $("button").click(function(){  $("[href]").hide();});  <a href="**https://www/html/">**HTML</a>  <a href="**https://www/css/">**CSS</a></p> |
|  | $("a[target='\_blank']") | Selects all <a> elements with a target attribute value equal to "\_blank" | $("button").click(function(){  $("a[target='\_blank']") .  hide(); });  <a target="\_blank">HT</a> |
|  | $("a[target!='\_blank']") | Selects all <a> elements with a target attribute value NOT equal to "\_blank" | $("button").click(function(){  $("a[target!='\_blank']") .  hide(); });  <a href=**[httpww/css/](https://www/css/)>**HT</a> |
|  | $(":button") | Selects all <button> elements and <input> elements of type="button" | $("button").click(function(){  $(":button").hide();});  <button>Click me</button> |
|  | $("tr:even") | Selects all even <tr> elements | $("tr:even").css("background-color", "yellow");  <table border="1">  <tr><th>**Company**</th></tr>  <tr><th>Company</th></tr>  <tr><th>**Company**</th></tr>  <tr><th>Company</th></tr> |
|  | $("tr:odd") | Selects all odd <tr> elements | $("tr:even").css("background-color", "yellow");  <table border="1">  <tr><th>Company</th></tr>  <tr><th>**Company**</th></tr>  <tr><th>Company</th></tr>  <tr><th**>Company**</th></tr> |

**JQUERY EVENTS:**

* precise moment when something happens

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| The on() Method | Attaches one or more event handlers for the selected elements |
| $("p").on({     mouseenter: function(){         $(this).css("background-color", "lightgray");     },      mouseleave: function(){         $(this).css("background-color", "lightblue");     },      click: function(){         $(this).css("background-color", "yellow");  } }); | |

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| **Name** | **Description** | **Code** |
| **click()** | when the user clicks on the HTML element | $("p").click(function(){     $(this).hide(); }); |
| **dblclick()** | when the user double-clicks on the HTML element | $("p").dblclick(function(){     $(this).hide(); }); |
| **mouseenter()** | when the mouse pointer enters the HTML element | $("#p1").mouseenter(function(){     alert("You entered p1!"); }); |
| **mouseleave()** | when the mouse pointer leaves the HTML element | $("#p1").mouseleave(function(){     alert("Bye! You now leave p1!"); }); |
| **mousedown()** | when the left, middle or right mouse button is pressed down | $("#p1").mousedown(function(){     alert("Mouse down over p1!"); }); |
| **mouseup()** | when the left, middle or right mouse button is released | $("#p1").mouseup(function(){     alert("Mouse up over p1!"); }); |
| **hover()** | when the mouse enters the HTML element, and the second function is executed when the mouse leaves the HTML element | $("#p1").hover(function(){     alert("You entered p1!"); }, function(){     alert("Bye! You now leave p1!"); }); |
| **focus()** | when the form field gets focus | $("input").focus(function(){     $(this).css("background-color", "#cccccc"); }); |
| **blur()** | when the form field loses focus | $("input").blur(function(){     $(this).css("background-color", "#ffffff"); }); |

**JQUERY EFFECTS**

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| **jQuery Effects** |

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| **Callback Functions** | Executed after the current effect is finished |
| **Call back:( First complete hide,then run alert)**  $("button").click(function(){     $("p").hide("slow", function(){         alert("The paragraph is now hidden");     }); });  **Without Call back:(But here run hide and alert collapsed relation )**  $("button").click(function(){     $("p").hide(1000);     alert("The paragraph is now hidden"); }); | |

**Speed Parameters:**

* "slow"
* "fast"
* Milliseconds(1000 or 5000)

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| **Hide , Show and Toggle** | | |
| $("#hide").click(function(){     $("p").hide();}); | | $(*selector*).hide(*speed,callback*); |
| $("#show").click(function(){     $("p").show(); }); | $(*selector*).show(*speed,callback*); | |
| $("button").click(function(){     $("p").toggle(); }); | $(*selector*).toggle(*speed,callback*); | |

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| **Fade** | |
| $("button").click(function(){     $("#div1").fadeIn();     $("#div2").fadeIn("slow");     $("#div3").fadeIn(3000); }); | $(*selector*).fadeIn(*speed,callback*);  fade in a hidden element  style=”display:none”; |
| $("button").click(function(){     $("#div1").fadeOut();     $("#div2").fadeOut("slow");     $("#div3").fadeOut(3000); }); | $(*selector*).fadeOut(*speed,callback*);  fade out a visible element |
| $("button").click(function(){     $("#div1").fadeToggle();     $("#div2").fadeToggle("slow");     $("#div3").fadeToggle(3000)}; | $(*selector*).fadeToggle(*speed,callback);* |
| $("button").click(function(){     $("#div1").fadeTo("slow", 0.15);     $("#div2").fadeTo("slow", 0.4);     $("#div3").fadeTo("slow", 0.7); }); | $(*selector*).fadeTo(*speed,opacity,callback*);  allows fading to a given opacity (value between 0 and 1). |

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| **Slide** | |
| $("#flip").click(function(){     $("#panel").slideDown(); }); | $(*selector*).slideDown(*speed,callback*);  slide down an element  style=”display:none”; |
| $("#flip").click(function(){     $("#panel").slideUp(); }); | $(*selector*).slideUp(*speed,callback*);  slide up an element. |
| $("#flip").click(function(){     $("#panel").slideToggle(); }); | $(*selector*).slideToggle(*speed,callback*);  Down -> Up |

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| **Animate** | create custom animations |
| $(*selector*).animate({*params*}*,speed,callback*);   $("button").click(function(){     var div = $("div");     div.animate({height: '300px', opacity: '0.4'}, "slow");     div.animate({width: '300px', opacity: '0.8'}, "slow");     div.animate({height: '100px', opacity: '0.4'}, "slow");     div.animate({width: '100px', opacity: '0.8'}, "slow"); }); | |

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| **Stop** | stop an animation or effect before it is finished  including sliding, fading and custom animations |
| $(*selector*).stop(*stopAll,goToEnd*);   $("#stop").click(function(){     $("#panel").stop(); }); | |

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| **Chaining** | allows us to run multiple jQuery commands, one after the other, on the same element(s). |
| $("button").click(function(){  $("#p1") .css("color", "red")  .slideUp(2000)  .slideDown(2000);});  <p id="p1">jQuery is fun!!</p>  <button>Click me</button> | |

**JQUERY HTML**

**Get Content and Attributes:**

Get Content - text(), html(), and val()

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| **text()** | Sets or returns the text content of selected elements | |
| $("#btn1").click(function(){     alert("Text: " + $("#test").text()); }); | | |
| **html()** | | Sets or returns the content of selected elements |
| $("#btn2").click(function(){  alert("HTML: " + $("#test").html());  }); | | |
| **val()** | | Sets or returns the value of form fields |
| $("button").click(function(){  alert("Value: " + $("#test").val());  }); | | |

**Set Content and Attributes:**

Set Content - text(), html(), and val()

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| **text()** | Sets or returns the text content of selected elements | |
| $("#btn1").click(function(){     $("#test1").text(function(i, origText){         return "Old text: " + origText + " New text: Hello world!         (index: " + i + ")";      }); }); | | |
| **html()** | | Sets or returns the content of selected elements |
| $("#btn2").click(function(){     $("#test2").html(function(i, origText){         return "Old html: " + origText + " New html: Hello < b>world!</b>         (index: " + i + ")";      }); }); | | |
| **val()** | | Sets or returns the value of form fields |
| $("#btn3").click(function(){     $("#test3").val("Dolly Duck"); }); | | |

**Add Elements:**

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| **append()** | Inserts content at the end of the selected elements | |
| $("p").append("Some appended text."); | | |
| **prepend()** | | Sets or returns the content of selected elements |
| $("p").prepend("Some appended text."); | | |
| **after()** | | inserts content AFTER the selected HTML elements |
| $("img").after("Some text after"); | | |
| **before()** | | inserts content BEFORE the selected HTML elements |
| $("img").before("Some text before"); | | |

**Remove Elements:**

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| remove()  (over all content and style removed) | Inserts content at the end of the selected elements | |
| $("#div1").remove(); | | |
| empty()  (content only removed) | | removes the child elements of the selected element(s). |
| $$("#div1").empty(); | | |

**CSS():**

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| Css() | sets or returns one or more style properties for the selected elements. |
| Return CSS Property value:  Syntax:  css("*propertyname*");  Ex:  $("p").css("background-color");  Set a CSS Property:  Syntax:  css("*propertyname*","*value*");  Ex:  $("p").css("background-color", "yellow");  Set Multiple CSS Properties:  Syntax:  css({"*propertyname*":"*value*","*propertyname*":"*value*",...});  Ex:  $("p").css({"background-color": "yellow", "font-size": "200%"}); | |

**CSS Classes:**

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| **Style Sheet:**  .important {     font-weight: bold;     font-size: xx-large; }  .blue {     color: blue; } |

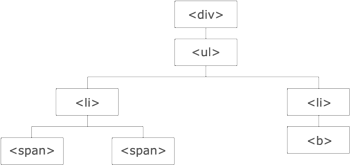
|  |  |  |
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| addClass() | Adds one or more classes to the selected elements | |
| $("button").click(function(){  $("#div1").addClass("important blue");}); | | |
| removeClass() | | Removes one or more classes from the selected elements |
| $("button").click(function(){     $("h1, h2, p").removeClass("blue"); }); | | |
| toggleClass() | | Toggles between adding/removing classes from the selected elements |
| $("button").click(function(){     $("h1, h2, p").toggleClass("blue"); }); | | |

**Dimensions:**

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| width()  height() | sets or returns the width of an element  sets or returns the height of an element |
| $("button").click(function(){     var txt = "";     txt += "Width: " + $("#div1").width() + "</br>";     txt += "Height: " + $("#div1").height();     $("#div1").html(txt); });  Note: Exclude(Padding, Border and Margin); | |
| Inner width()  Inner height() | returns the width of an element  returns the height of an element |
| $("button").click(function(){     var txt = "";     txt += "Inner width: " + $("#div1").innerWidth() + "</br>";     txt += "Inner height: " + $("#div1").innerHeight();     $("#div1").html(txt); });  Note: Include(Padding) | |
| Outer width()  Outer height() | returns the width of an element  returns the height of an element |
| $("button").click(function(){     var txt = "";     txt += "Outer width: " + $("#div1").outerWidth() + "</br>";     txt += "Outer height: " + $("#div1").outerHeight();     $("#div1").html(txt); });  Note: Include(Padding, Border); | |

**JQUERY TRAVERSING**

* find" (or select) HTML elements based on their relation to other elements



**Up -** Ancestors - parent, grandparent, great-

grandparent, and so on

**Down** - Descendants - child, grandchild, great-grandchild,

and so on

**Sides** - Siblings - share the same parent

**Traversing Up the DOM Tree:**

* parent()
* parents()
* parentsUntil()

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| Parent() | returns the direct parent element of the selected element |
| $(document).ready(function(){     $("span").parent(); }); | |
| parents() | returns all ancestor elements of the selected element |
| $(document).ready(function(){     $("span").parents(); }); | |
| parentsUntil() | returns all ancestor elements between two given arguments |
| $(document).ready(function(){     $("span").parentsUntil("div"); }); | |

**Traversing Down the DOM Tree**

* children()
* find()

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| children() | returns all direct children of the selected element |
| $(document).ready(function(){     $("div").children(); }); | |
| find() | returns descendant elements of the selected element |
| $(document).ready(function(){     $("div").find("span"); }); | |

**Traversing Down the DOM Tree**

* siblings()
* next()
* nextAll()
* nextUntil()
* prev()
* prevAll()
* prevUntil()

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| siblings() | returns **all** sibling elements of the selected element |
| $(document).ready(function(){     $("h2").siblings(); }); | |
| next() | returns the **next** sibling element of the selected element |
| $(document).ready(function(){     $("h2").next(); }); | |
| nextAll() | returns **all next** sibling elements of the selected element |
| $(document).ready(function(){     $("h2").nextAll(); }); | |
| nextUntil() | returns **all next** sibling elements between **two given arguments** |
| $(document).ready(function(){     $("h2").nextUntil("h6"); }); | |
| prev(), | returns descendant elements of the selected element |
| $(document).ready(function(){     $("div").find("span"); }); | |
| prevAll() | returns descendant elements of the selected element |
| $(document).ready(function(){     $("div").find("span"); }); | |
| prevUntil() | returns descendant elements of the selected element |
| $(document).ready(function(){     $("div").find("span"); }); | |

**Filtering:**

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| first() | returns the first element of the specified elements |
| $(document).ready(function(){     $("div").first(); }); | |
| last() | returns the last element of the specified elements |
| $(document).ready(function(){     $("div").last(); }); | |
| eq() | returns an element with a **specific index number** of the selected elements |
| $(document).ready(function(){     $("p").eq(1); });  Note :Start from 0. | |
| filter() | returns all elements that match the criteria |
| $(document).ready(function(){     $("p").filter(".intro"); }); | |
| not() | returns all elements that do not match the criteria |
| $(document).ready(function(){     $("p").not(".intro"); }); Note**:** The not() method is the opposite of filter(). | |

**JQUERY AJAX**

* exchanging data with a server, and updating parts of a web page - without reloading the whole page.

**What About jQuery and AJAX?**

* provides several methods for AJAX functionality
* load the external data directly into the selected HTML elements of your web page using Http Get or Http Post.

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| load() | simple, but powerful AJAX method  loads data from a server and puts the returned data into the selected element |
| **Syntax:**  $(*selector*).load(*URL,data,callback*);  **URL:**  URL parameter specifies the URL you wish to load  **Data:**  specifies a set of querystring key/value pairs to send along with the  request  **callback :**  function to be executed after the load() method is completed  Parameters:  responseTxt - contains the resulting content if the call succeeds  statusTxt - contains the status of the call  xhr - contains the XMLHttpRequest object  Example 1:  $(document).ready(function(){  $("button").click(function(){  $("#div1").**load("demo\_test.txt #p1");**  });  });  Example 2:  $(document).ready(function(){  $("button").click(function(){  $("#div1").**load("demo\_test.txt", function(responseTxt, statusTxt, xhr)**{  if(statusTxt == "success")  alert("External content loaded successfully!");  if(statusTxt == "error")  alert("Error: " + xhr.status + ": " + xhr.statusText);}); });}); | |

**GET vs POST Methods:**