# Lesson 04 – Event handling with JQuery

## Session 1 Worksheet

Resources: <http://www.w3schools.com/jquery/jquery_ref_events.asp>

<http://www.w3schools.com/jquery/jquery_ref_effects.asp>

### Exercise 1a:

Using Netbeans, create a project called C273\_L04ToDoList. Create a new HTML file named **exercise1a.html** to write the jQuery code to change the header text from “Heading 1” to “Hello World” upon clicking the [**Change Heading 1**] button .

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| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10**  **11**  **12**  **13**  **14**  **15**  **16**  **17**  **18**  **19**  **20**  **21**  **22**  **23**  **24**  **25**  **26** | <!DOCTYPE html>  <html>  <head>  <title>Exercise 3</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <script src="js/jquery-3.5.1.min.js" type="text/javascript"></script>  <script>  $(document).ready(function () {  $("#btn1").click(function () {  $("#heading1").text("Hello World");  });  });  </script>  <style>  .required { color: #FF0000; }  </style>  </head>  <body>  <h1 id="heading1">Heading 1</h1>  <p id="magic">Point your mouse pointer here!!!</p>  <input type="button" id="btn1" value="Change Heading 1">  </body>  </html> |

Line 7 – Link the document to the jQuery library hosted in the Content Delivery Network (CDN) in google.

Line 9 – All jQuery code is inside a document ready event. This is to prevent any jQuery code from running before the document is finished loading (is ready).

Line 11 – $("#btn1") retrieves the element of id “btn1”, which is the <input> element in Line 24. click() method is used handle button clicks to this selector.

Line 12 – $("#heading1") retrieves the element of id “heading1”, which is the <h1> element in Line 22. text() method is used to change the text contents of that selector.

Run it to test out the desired effect.

#### jQuery Code

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| <script>  $(document).ready(function () {  alert("test");  // Mouse clicks an id-btn object  $("#btn1").click(function () {  // Sets the content of selected (html) of id-heading1 elements  $("#heading1").html("<b>Hello World</b>");  });  })  </script> |

### exercise1b

**TODO:** Copy and paste exercise1a.html to create a duplicate file and rename the duplicate file as **exercise1b.html**. Extend exercise1b.html with jQuery code to do the following:

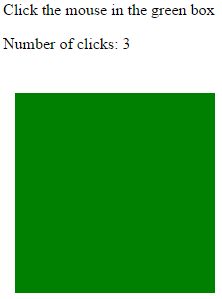
* Change the colour of the paragraph text “Point your mouse pointer here!!!” from black to red (Use the style class “required”), when the mouse is over the text.
* When the mouse is over the button,
  + Replace the text of [Replace] button with “Hello World” and
  + Make the “Heading 1” text disappear and
  + Replace the paragraph text “Point your mouse pointer here!!!” with the fontawesome icon , when the mouse is over the [**Replace with icon**] button

#### jQuery Code

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| <script>  $(document).ready(function () {  $("#btn1").hover(function () {  $(this).val("Hello World");  $("#heading1").hide();  $("#magic").html("<i class = 'fa fa-dove'></i>");  });  $("#magic").hover(function () {  $(this).toggleClass("required");  })  });  </script> |

### Exercise 2a:

Create a new HTML file named **exercise2a.html** and write the jQuery code to display the number of clicks in the green box.



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| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10**  **11**  **12**  **13**  **14**  **15**  **16**  **17**  **18**  **19**  **20**  **21**  **22**  **23**  **24**  **25**  **26**  **27**  **28**  **29**  **30** | <!DOCTYPE html>  <html>  <head>  <title>Exercise 2a</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <script src="js/jquery-3.5.1.min.js" type="text/javascript"></script>  <style>  .greenbox {  position:absolute;  top:100px;  left:20px;  height:200px;  width:200px;  background-color:green  }  </style>  <script>  $(document).ready(function () {  });  </script>  </head>  <body>  Click the mouse in the green box  <p>Number of clicks: <span id="numClicks"></span></p>  <div class="greenbox"></div>  </body>  </html> |

**Hint:**

* Create a global variable “num” and initialise it to 0.
* Create a click() event listener on the selector “.greenbox”,
  + Increase the value of “num” by 1
  + Use the html() method on the selector “#numClicks” to display the value of “num”

**Challenge**: Show total number of left or right clicks. Use a contextmenu() event listener for right click.

#### jQuery Code

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| <script>  $(document).ready(function () {  var num = 0;  $("#numClicks").text(num);  $(".greenbox").click(function () {  num += 1;  $("#numClicks").text(num);  });  $(".greenbox").contextmenu(function () {  num += 1;  $("#numClicks").text(num);  });  });  </script> |

### Exercise 2b:

Create a new HTML file named **exercise2b.html** and write the jQuery code to increase or decrease the quantity by 1 depending whether the user clicks “-1” or “+1”.



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**Hint:**

* Create a global variable “num” and initialise it to 0.
* Create a click() event listener on the selector “#down”,
  + Decrease the value of “num” by 1
  + Use the val() method on the selector “#qty” to display the value of “num”
* Try repeating the above steps for selector “#up”

#### jQuery Code

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| <script>  $(document).ready(function () {  var num = 0;  // Mouse clicks an object  $("#down").click(function () {  // Everytime when it clicks , the number decreases by 1  num--;  // Sets the content of selected (html) elements for id numClicks  // Everything when it clicks , the number decreases by 1  $("#qty").val(num);  });  // Mouse clicks an object  $("#up").click(function () {  // Everytime when it clicks , the number increases by 1  num++;  // Sets the content of selected (html) elements for id numClicks  // Everything when it clicks , the number increases by 1  $("#qty").val(num);  });  });  </script> |

### Exercise 2c:

Create a new HTML file named **exercise2c.html** and write the jQuery code to display the selected Pizza Toppings in the text area when the user checks each topping.

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|  | When the user clicks on the Submit button, the following alert will pop-up    The user confirms by clicking the “OK” button, and the following alert will pop-up. Otherwise, the form will not be submitted.    Upon clicking the “OK” button, it informs that the form is submitted. |

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| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10**  **11**  **12**  **13**  **14**  **15**  **16**  **17**  **18**  **19**  **20**  **21**  **22**  **23**  **24**  **25**  **26**  **27**  **28**  **29**  **30**  **31**  **32**  **33**  **34**  **35**  **36**  **37**  **38**  **39**  **40** | <!DOCTYPE html>  <html>  <head>  <title>Exercise 2c</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <link href="css/bootstrap.min.css" rel="stylesheet" type="text/css"/>  <script src="js/jquery-3.5.1.min.js" type="text/javascript"></script>  <script>  $(document).ready(function () {    });  </script>  </head>  <body>  <div class="container">  <br/>  <form id="pizzaform">  <div class="form-group">  <label>Pick your pizza toppings:</label>  </div>  <div class="checkbox">  <label><input type="checkbox" value="Tomatoes"> Tomatoes</label><br/>  <label><input type="checkbox" value="Salami"> Salami</label><br/>  <label><input type="checkbox" value="Pineapple"> Pineapple</label><br/>  <label><input type="checkbox" value="Canadian bacon"> Canadian bacon</label><br/>  <label><input type="checkbox" value="Anchovies"> Anchovies</label><br/>  <label><input type="checkbox" value="Extra Cheese"> Extra Cheese</label>  </div>  <div class="form-group">  <label for="results">Pizza Toppings:</label>  <textarea id="results" rows="10" cols="20" class="form-control"></textarea>  </div>  <img src="images/PizzaMan.gif" alt=""/><br/><br/>  <input type="submit" class="btn btn-default" value="Submit"/>  </form>  </div>  </body>  </html> |

**Hint:**

* Create a click() event listener on the selector “[type=checkbox]”,
  + Select all the checked option and loop through each one with the each() method.
  + Use the val() method on the current checkbox being selected $(this) in order to retrieve the topping. Concatenate the current topping to a string.
  + Display the toppings on the selector “#results” using the val() method.
* Create a submit() event listener on the selector “#pizzaform”,
  + Use the val() method on the selector “#results” in order to retrieve the existing value in the text area.
  + Call the confirm() method to request for user’s input
    - If yes, call the alert() method with the “Order submitted” message
    - Otherwise, prevent the form from submitting

#### jQuery Code

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| <script>  $(document).ready(function () {  $("#bg").attr("src", "images/thesopranos.jpg");  $("#bg").css({"object-fit": "scale-down", "width": "100%", "height": "100%"});  $("img").css('display', 'inline-block');  // when the checkbox is clicked  $("[type=checkbox]").click(function () {  var message = "";  // those checkboxs that have been checked  $("[type=checkbox]:checked").each(function () {  message += $(this).val() + "\n";  })  $("#results").val(message);  });  // When id-pizzaform The submit button is clicked  $("#pizzaform").submit(function () {  // get the value of element id-results  var message = $("#results").val();  var tmp = confirm("Are you sure you wish to have the following toppings? \n\n" + message);  if (tmp) {  alert("Order submitted");  return true  } else {  return false;  }  })  $("#b4").click(function () {  var audio = document.getElementById('audio');  audio.currentTime = 0;  audio.play();  });  });  </script> |

### Exercise 2d:

Create a new HTML file named **exercise2d.html** and write the jQuery code to do the following:

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|  | * Click on the “+” icon to hide the “Add New Todo” text field. Click it again to show it. * User fills up the “Add New Todo” text field and hits the “Enter” key to insert the new todo in the list below. * User clicks on the trash icon to remove that item from the list. * User clicks on any list item to cross out that item (i.e. mark as completed) |

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| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10**  **11**  **12**  **13**  **14**  **15**  **16**  **17**  **18**  **19**  **20**  **21**  **22**  **23**  **24**  **25**  **26**  **27**  **28**  **29**  **30**  **31**  **32**  **33**  **34**  **35**  **36**  **37**  **38**  **39**  **40**  **41**  **42**  **43**  **44**  **45**  **46**  **47**  **48**  **49**  **50**  **51**  **52**  **53** | <!DOCTYPE html>  <!--  To change this license header, choose License Headers in Project Properties.  To change this template file, choose Tools | Templates  and open the template in the editor.  -->  <html>  <head>  <title>Exercise 2c</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <link href="css/bootstrap.min.css" rel="stylesheet" type="text/css"/>  <script src="js/jquery-3.5.1.min.js" type="text/javascript"></script>  <link href="css/all.min.css" rel="stylesheet" type="text/css"/>  <script>  $(document).ready(function () {  $(".fa-plus").click(function () {  });  $("input[type='text']").keypress(function (event) {  });  $("table").on("click", ".btn-danger", function (event) {  });  $("table").on("click", "tr", function () {  });  });  </script>  <style>  .completed{  }  </style>  </head>  <body>  <div class="container">  <h3 class="bg-info">TODO List <i class="fa fa-plus"></i></h3>  <form class="form-inline" action="#">  <div class="form-group">  <input type="text" id="todo" class="form-control"/>  </div>  </form>  <table id="todolist" class="table table-striped table-bordered">  </table>  </div>  </body>  </html> |

#### jQuery Code

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| <script>  $(document).ready(function () {  $(".fa-plus").click(function () {  if ($("#todo").is(":visible")) {  $("#todo").hide();  } else {  $("#todo").show();  }  });  $("input[type='text']").keypress(function (event) {  if (event.which == 13) {  var todoText = $(this).val();  $(this).val("");  $("table").append("<tr><td><button class='btn btn-danger'><i class='fas fa-trash-alt'></i> </button>" + todoText + " <td><tr>");  }  });  $("table").on("click", ".btn-danger", function (event) {  $(this).parent().parent().remove();  });  $("table").on("click", "tr", function () {  $(this).toggleClass("completed");  });  $("#b4").click(function () {  var audio = document.getElementById('audio');  audio.currentTime = 0;  audio.play();  });  });  </script> |