

Practical Lab 2

Student ID: _____

Student Name: _____

Q1. Test the following JavaScript codes:

```
<html>
  <head>
    <script type="text/javascript">
      function display() {
        //get user input
        var input = document.getElementById("input").value;

        //display result
        alert("You entered: " + input);
      }
    </script>
  </head>
  <body>

    Enter: <input id="input" name="input" >
    <br><br>

    <!-- click the button, call the javascript function display() -->
    <button type="button" onclick="display();">

    Click me to display your input</button>
    <br><br>

  </body>
</html>
```

Q2. Test the following JavaScript codes:

```
<html>
  <head>
    <script type="text/javascript">
      function calcResult() {
        var y = 5;
        var x = y + 2;

        // display result
        document.getElementById("result").innerHTML = x;
      }
    </script>
  </head>
  <body>

    <p>y equals 5, calculate x = y + 2, and display x:</p>

    <button onclick="calcResult()">Try it</button>
    <br><br>

    Result: <p id="result"></p>

  </body>
</html>
```

Q3. Based on **Q1** & **Q2**, use JavaScript to implement an e-commerce order form as follows:

Shopping Cart

Products	Price	Quantity	Subtotal
Product A	\$10	<input type="text" value="2"/>	0
Product B	\$15	<input type="text" value="1"/>	0
Product C	\$20	<input type="text" value="3"/>	0
Total		0	0

Shopping Cart

Products	Price	Quantity	Subtotal
Product A	\$10	<input type="text" value="2"/>	20
Product B	\$15	<input type="text" value="1"/>	15
Product C	\$20	<input type="text" value="3"/>	60
Total		6	95

Press “Update” to update the order form before submission.

Key: 1. Get user's input (e.g. quantity)
2. Calculate result (e.g. subtotal, total)
3. Display on the form

Q4. Based on **Q3**, use JavaScript to implement an e-commerce order form as follows:

Shopping Cart

Products	Price	Quantity	Subtotal
Product A	\$10	<input type="text" value="0"/>	0
Product B	\$15	<input type="text" value="0"/>	0
Product C	\$20	<input type="text" value="0"/>	0
Total		0	0

Shopping Cart

Products	Price	Quantity	Subtotal
Product A	\$10	<input type="text" value="2"/>	20
Product B	\$15	<input type="text" value="0"/>	0
Product C	\$20	<input type="text" value="0"/>	0
Total		2	20

Without pressing “Update” button, every time you change the quantity of any product, the total quantity, subtotal, and total amount will be **updated automatically**.

Key: 1. html number validation – quantity only accept number as input
2. Set default value, and min/max value for each quantity input
3. Real time update, all results are automatically updated

Answer:

Q3.

```
<!DOCTYPE html>
<html>
<head>
<style>
table {
    font-family: arial, sans-serif;
    border-collapse: collapse;
    width: 400px;
}
td, th {
    width:100px;
    text-align: center;
    padding: 8px;
}
th {
    background-color: #4CAF50;
    color: white;
}
</style>
</head>
<body>

<h1>Shopping Cart</h1>
<FORM ACTION="http://www.rebol.com/cgi-bin/test-cgi.cgi">
<table>
<tr>
<th>Products</th>
<th>Price</th>
<th>Quantity</th>
<th>Subtotal</th>
</tr>
<tr>
<td>Product A<input type="hidden" name="ProductA" id="ProductA" value="ProductA"/></td>
<td>$10<input type="hidden" name="ProductAprice" id="ProductAprice" value="10"/></td>
<td><input id="ProductAquantity" name="ProductAquantity" type="number" value="0" min="0"
max="10"/></td>
<td><p id="ProductAsubtotal">0</p><input id="ProductAtotal" name="ProductAtotal"
type="hidden"/></td>
</tr>
<tr>
<td>Product B<input type="hidden" name="ProductB" id="ProductB" value="ProductB"/></td>
<td>$15<input type="hidden" name="ProductBprice" id="ProductBprice" value="15"/></td>
<td><input id="ProductBquantity" name="ProductBquantity" type="number" value="0" min="0"
max="10"/></td>
<td><p id="ProductBsubtotal">0</p><input id="ProductBtotal" name="ProductBtotal"
type="hidden"/></td>
</tr>
<tr>
<td>Product C<input type="hidden" name="ProductC" id="ProductC" value="ProductC"/></td>
<td>$20<input type="hidden" name="ProductCprice" id="ProductCprice" value="20"/></td>
<td><input id="ProductCquantity" name="ProductCquantity" type="number" value="0" min="0"
max="10"/></td>
```

```

        <td><p id="ProductCsubtotal">0</p><input id="ProductCtotal" name="ProductCtotal"
type="hidden"/></td>
    </tr>
    <tr>
        <th></th>
        <th>Total</th>
        <th><p id="Quantity" >0</p><input id="totalQuantity" name="total" type="hidden"/></th>
        <th><p id="Price" >0</p><input id="totalPrice" name="totalPrice" type="hidden"/></th>
    </tr>
    <tr>
        <td></td>
        <td></td>
        <td><button type="button" onclick="updateCart();">Update</button></td>
        <td><button type="submit">Submit</button></td>
    </tr>
</table>
<br/><br/>

</FORM>

<script type="text/javascript">

function calcSubTotal(productName){

    var quantity = parseInt(document.getElementById(productName+'quantity').value);
    if(quantity > 0){
        var price = parseInt(document.getElementById(productName+'price').value);

        var subtotal = price * quantity;
        document.getElementById(productName+"subtotal").innerHTML = subtotal;
        document.getElementById(productName+"total").value = subtotal;
        return subtotal;
    }
    document.getElementById(productName+"subtotal").innerHTML = 0;
    document.getElementById(productName+"total").value = 0;
    return 0;
}

function updateCart(){

    var total = calcSubTotal('ProductA')+calcSubTotal('ProductB')+calcSubTotal('ProductC');
    var quantity =
parseInt(document.getElementById('ProductAquantity').value)+parseInt(document.getElementById('P
roductBquantity').value)+parseInt(document.getElementById('ProductCquantity').value);

    document.getElementById("Quantity").innerHTML = quantity;
    document.getElementById("totalQuantity").value = quantity;

    document.getElementById("Price").innerHTML = total;
    document.getElementById("totalPrice").value = total;
}
</script>
</body>
</html>

```

Q4.

```
<!DOCTYPE html>
<html>
```

```
  <head>
    <style>
      table {
        font-family: arial, sans-serif;
        border-collapse: collapse;
        width: 400px;
      }

      td,
      th {
        width: 100px;
        text-align: center;
        padding: 8px;
      }

      th {
        background-color: #4CAF50;
        color: white;
      }
    </style>
  </head>

  <body>
```

```
<!--
```

Possible bonus tasks:

1. html number validation - number only, default value, min/max value
2. using post for better security - method="post"
3. real time update - onchange

```
-->
```

```
  <h1>Shopping Cart</h1>
```

```
  <form action="http://www.rebol.com/cgi-bin/test-cgi.cgi" method="post">
```

```
    <table>
      <tr>
        <th>Products</th>
        <th>Price</th>
        <th>Quantity</th>
        <th>Subtotal</th>
      </tr>
      <tr>
        <td>Product A
          <input type="hidden" name="ProductA" id="ProductA" value="ProductA" />
        </td>
        <td>$10
          <input type="hidden" name="ProductAprice" id="ProductAprice" value="10" /></td>
        <td>
          <input id="ProductAquantity" name="ProductAquantity" type="number" value="0"
min="0" max="10" onchange="updateCart()"/>
        </td>
        <td>
```

```

        <p id="ProductAsubtotal">0</p>
        <input id="ProductAtotal" name="ProductAtotal" type="hidden" value="0" />
    </td>
</tr>
<tr>
    <td>Product B
        <input type="hidden" name="ProductB" id="ProductB" value="ProductB" />
    </td>
    <td>$15
        <input type="hidden" name="ProductBprice" id="ProductBprice" value="15" />
    </td>
    <td>
        <input id="ProductBquantity" name="ProductBquantity" type="number" value="0"
min="0" max="10" onchange="updateCart()"/>
    </td>
    <td>
        <p id="ProductBsubtotal">0</p>
        <input id="ProductBtotal" name="ProductBtotal" type="hidden" value="0" />
    </td>
</tr>
<tr>
    <td>Product C
        <input type="hidden" name="ProductC" id="ProductC" value="ProductC" />
    </td>
    <td>$20
        <input type="hidden" name="ProductCprice" id="ProductCprice" value="20" />
    </td>
    <td>
        <input id="ProductCquantity" name="ProductCquantity" type="number" value="0"
min="0" max="10" onchange="updateCart()"/>
    </td>
    <td>
        <p id="ProductCsubtotal">0</p>
        <input id="ProductCtotal" name="ProductCtotal" type="hidden" value="0" />
    </td>
</tr>
<tr>
    <th>Total</th>
    <th></th>
    <th>
        <p id="Quantity">0</p>
        <input id="totalQuantity" name="total" type="hidden" value="0" />
    </th>
    <th>
        <p id="Price">0</p>
        <input id="totalPrice" name="totalPrice" type="hidden" value="0" />
    </th>
</tr>
<tr>
    <td></td>
    <td></td>
    <td></td>
    <td><button type="submit">Submit</button></td>
</tr>
</table>
</form>

<script type="text/javascript">

```

```
var calcSubTotal = function(productName) {
```

```
    var quantity = parseInt(document.getElementById(productName + 'quantity').value);
    if (quantity > 0) {
        var price = parseInt(document.getElementById(productName + 'price').value);
        var subtotal = price * quantity;
        document.getElementById(productName + "subtotal").innerHTML = subtotal;
        document.getElementById(productName + "total").value = subtotal;
        return subtotal;
    }
```

```
    document.getElementById(productName + "subtotal").innerHTML = 0;
    document.getElementById(productName + "total").value = 0;
    return 0;
}
```

```
function updateCart() {
```

```
    var total = calcSubTotal('ProductA') + calcSubTotal('ProductB') + calcSubTotal('ProductC');
```

```
    var quantity = parseInt(document.getElementById('ProductAquantity').value) +
    parseInt(document.getElementById('ProductBquantity').value) +
    parseInt(document.getElementById('ProductCquantity').value);
```

```
    document.getElementById("Quantity").innerHTML = quantity;
    document.getElementById("totalQuantity").value = quantity;
```

```
    document.getElementById("Price").innerHTML = total;
    document.getElementById("totalPrice").value = total;
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```