**Assignment 1**

**Question 1**

HTML

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Assignment 1 - Question 1</title>

    <link href="ass1\_q1.css" rel="stylesheet">

</head>

<body>

    <div class="container">

        <script type="text/javascript" language="javascript" src="ass1\_q1.js">

        </script>

    </div>

</body>

</html>

CSS

.container{

    border: 3px solid black;

    width: 31rem;

    padding: 0 1em 1em 1em;

}

JAVASCRIPT

//define books and authors

var books = [

    { title: "Data Structures and Algorithm Analysis in C++",

      publisher: "Pearson",

      authors: [

       {firstName: "Mark", lastName: "Weiss" }]

      },

    { title: "Foundations of Finance",

      publisher: "Pearson",

      authors: [

       {firstName: "Arthur", lastName: "Keown" },

       {firstName: "John", lastName: "Martin" }]

      },

    { title: "Literature for Composition",

      publisher: "Longman",

      authors: [

       {firstName: "Sylvan", lastName: "Barnet" },

       {firstName: "William", lastName: "Cain" },

       {firstName: "William", lastName: "Burto" }]

      }

 ];

function outputBooks() {

  //add 'let' so that each scope has it's own variable

    for (let i=0; i<books.length; i++) {

       document.write("<h2>" + books[i].title + "</h2>");

       document.write("<strong>" + books[i].publisher + "</strong>"+ "<br>" + "<br>");

       outputAuthors(books[i]);

    }

 function outputAuthors(book) {

    for (let i=0; i<book.authors.length; i++) {

      document.write("Author's Name: ");

      document.write(book.authors[i].firstName + ' ' + book.authors[i].lastName + "<br>");

    }

 }

}

 outputBooks();

**Question 2**

HTML

<html lang="en">

<head>

    <meta charset="utf-8" />

    <meta name="viewport" content="initial-scale=1.0,maximum-scale=1.0,width=device-width">

    <title>Assignment 1 - Question 2 </title>

    <link href="ass1\_q2.css" rel="stylesheet" />

    <script src="ass1\_q2\_data.js" type="text/JavaScript"></script>

    <script src="ass1\_q2\_functions.js" type="text/JavaScript"></script>

</head>

<body>

    <div class="title">

        <h1>Shopping Cart</h1>

    </div>

    <table class="table-fill">

        <thead>

            <tr>

                <th colspan="2">Product</th>

                <th>#</th>

                <th>Price</th>

                <th>Amount</th>

            </tr>

        </thead>

        <tbody>

            <script src="ass1\_q2\_start.js"></script>

        </tbody>

    </table>

</body>

</html>

CSS

*There was no change in CSS.*

JAVASCRIPT

*FILE: ass1\_q2\_functions.js*

/\* define functions here \*/

function outputCartRow(file, title, quantity, price, total) {

    document.write('<tr>');

    document.write('<td><img src="img/' + file + '"></td>');

    document.write('<td>' + title + '</td>');

    document.write('<td>' + quantity + '</td>');

    document.write('<td>$' + price.toFixed(2) + '</td>');

    document.write('<td>$' + total.toFixed(2) + '</td>');

    document.write('</tr>');

}

function calculateTotal(quantity, price) {

    return quantity \* price;

}

function calcualteSubtotal(quantities, prices) {

    var subtotal = 0;

    for (var i = 0; i < quantities.length; i++) {

        subtotal = subtotal + calculateTotal(quantities[i],prices[i]);

    }

    return subtotal;

}

function calculateTax(subtotal) {

    return subtotal \* .1;

}

function calculateShipping(subtotal) {

    return subtotal > 1000 ? 0 : 40;

}

function calculateGrandTotal(subtotal, tax, shipping) {

    return subtotal + tax + shipping;

}

*FILE: ass1\_q2\_start.js*

/\* add loop and other code here ... in this simple exercise we are not

   going to concern ourselves with minimizing globals, etc \*/

   for (var i = 0; i < 3; i++) {

      outputCartRow(filenames[i], titles[i], quantities[i], prices[i], calculateTotal(quantities[i], prices[i]));

  }

  let subtotal = calcualteSubtotal(quantities, prices);

  let tax = calculateTax(subtotal);

  let shipping = calculateShipping(subtotal);

  let grandTotal = calculateGrandTotal(subtotal, tax, shipping);

  // subtotal row

  document.write('<tr class="totals">');

  document.write('<td colspan="4">Subtotal</td>');

  document.write('<td>$' + subtotal.toFixed(2) + '</td>');

  document.write('</tr>');

  // tax row

  document.write('<tr class="totals">');

  document.write('<td colspan="4">Tax</td>');

  document.write('<td>$' + tax.toFixed(2) + '</td>');

  document.write('</tr>');

  // shipping row

  document.write('<tr class="totals">');

  document.write('<td colspan="4">Shipping</td>');

  document.write('<td>$' + shipping.toFixed(2) + '</td>');

  document.write('</tr>');

  // grand total row

  document.write('<tr class="totals focus">');

  document.write('<td colspan="4">Grand Total</td>');

  document.write('<td>$' + grandTotal.toFixed(2) + '</td>');

  document.write('</tr>');

NOTE: I have all of my code on GitHub: