COMP 2015 – Final Exam

Due 11:59pm to the Dropbox > 'Final Exam' folder on D2L (learn.bcit.ca)

This is an open-book exam. You may use any resources except another person. **Submissions are compared with the submissions of other students, and evidence of collaboration can result in a failing grade for the entire course.**

Submission

Seven JavaScript files (one per question), named **question1.js**, **question2.js**, … , **question7.js**

Compress these **seven files** into a zip called **firstname-lastname.zip** and upload your zip to the 'Final Exam' dropbox folder on D2L

Instructions

The exam consists of seven questions. For each question, create a file named 'question1.js', 'question2.js', … 'question7.js'. Your answers will be tested with an HTML file that links to these files, e.g.

```
<head>
      …
      <script src="question1.js"></script>
      <script src="question2.js"></script>
      …
</head>
```

so please make sure to name your files exactly as noted.

Notes:

Please read the questions carefully and answer them exactly as described! Submissions will be tested on actual HTML elements, so if you are asked to add a 2px solid red border to an image with ID 'img1', your code will have to target the ID correctly and add the correct border in order to receive full marks for the question.

Your files will be tested one at a time, so you don't need to worry about any inter-script conflicts. I suggest you write and test each script in isolation.

The exam is worth a total of 46 marks.

Question 1 - from Lessons 1 and 2   (8 marks)

Show all the JavaScript code (**do not use jQuery**) necessary to do the following **after the window has finished loading**:

- Use DOM 0 to resize the width of the first image on the page to 100

- Include your name in a **single-line** JavaScript comment

- Use a **multi-line** JavaScript comment to describe what the document, navigator, window and style objects are

Question 2 - from Lesson 2 (4 marks)

Show all the JavaScript code (**do not use jQuery**) necessary to do the following **after the window has finished loading**:

- Using DOM 1, put a **red solid 4px** border around **all** images

- **Alert** how many **days** are left until Canada Day (July 1st) 2018

Question 3 - from Lesson 3   (8 marks)

Show all the JavaScript code (**do not use jQuery**) necessary to do the following **after the window has finished loading**:

- Write a **function** that loops through all of a page's hyperlinks and disables any link that has the word "**bcit**" in its **href** attribute.

- Call the function

Question 4 - from Lesson 3 (8 marks)

Show all the JavaScript code (you may use jQuery) necessary to do the following **after the window has finished loading**:

- For **each** paragraph on the page, assign an **anonymous** function to the **onclick** event that adds the **class 'clicked'** to the element and changes the **background color** to **yellow**

- For **each** paragraph on the page, assign an **anonymous** function to the **onmouseover** event that changes the **font style** to **italic** (for this, use style.fontStyle = 'italic')

Question 5 - from Lesson 4   (4 marks)

Show all the code necessary to do the following:

- Using **jQuery**, change the text color of all paragraphs to red

- Using **jQuery**, when an image with id '**img1**' is **clicked**, change its **width** to **50px**

- Using **JavaScript** (**not jQuery**), when an image with id '**img2**' is **double-clicked**, change its **width attribute** to **50**

Surround all of the above code in the $(document).ready() jQuery function

Question 6 - from Lesson 5 (6 marks)

Show all the JavaScript code (**do not use jQuery**) necessary to do the following **after the window has finished loading**:

- Using DOM scripting (i.e. document.createElement(…)) create the following elements (in order):

    1. An **H1** element, with **text node** inside it containing the text 'DOM Scripting'

    2. A **div**, **200px height** and **200px width**, with **red background**

    3. An **image**, **inside the div** with src '**a.jpg**' and ID '**img3**'

- When the image with ID '**img3**' is **clicked**, it moves **100px to the right** after a **3 second delay**. Note: the image only needs to move once

Question 7 - from Lesson 6   (8 marks)

Show all the JavaScript code (**do not use jQuery**) necessary to do the following:

Create **three** Book objects (i.e. **three separate variables**)

Each Book object must have fields for

- **title** (e.g. "The Art of the Deal")

- **author** (e.g. "Donald Trump")

- **yearPublished** (e.g. 1987)

- a **function/method** called **readBook**, which **logs** a message to the **console** (e.g. "I know **words**... I have the **best words**").

Create the **first** book using the **Object Literal** technique.

Create the **second** book using the **Prototype** pattern.

Create the **third** book using a **Class.**

Then use a '**for in**' loop to **alert** all the enumerable data of **one** of your objects.