FINAL EXAM – DECEMBER 2014
CSC 105 ♦ INTERACTIVE WEB DOCUMENTS
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This is an open-book, open-notes exam.

All answers should be written in your exam booklet(s). Start with the questions that you know how to do, and try not to spend too long on any one question. Partial credit will be granted where appropriate if you show your work. You will have two hours and twenty minutes. Good luck!

Document Object Model (16 points)

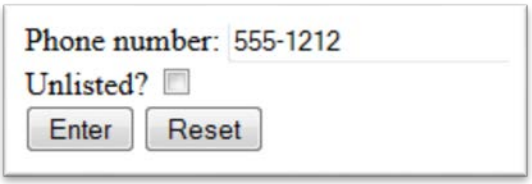
Consider the HTML below. Write a line or two of Javascript that would accomplish the following tasks, or say "Not possible" if it cannot be done using the techniques taught in class.

```
<body>
<img src="pic1.jpg" id="pic" /><br />
File:  <input type="text" readonly id="name" value="pic1.jpg"
/><br />
Editable? <input type="checkbox" id="edit" /><br />
<select id="file">
<option value="pic1.jpg">Photo 1</option>
<option value="pic2.jpg">Photo 2</option>
<option value="pic3.jpg">Photo 3</option>
</select>
</body>
```

a.) Change the displayed image so that it shows the contents of the file **`pic2.jpg`**.
b.) Change the text displayed within the text input box to **`pic2.jpg`**.
c.) Copy the current value of the popup menu element into the text input box.
d.) Change the background color of the page to yellow.
e.) Put a 1 pixel solid gray border all the way around the image.
f.) Move the image 1 inch to the right of its default position.
g.) Change the popup menu's current selection to the second option.
h.) Create a message window showing the current source file displayed by the image tag.

Forms (20 points)

The HTML below is supposed to generate the form shown at right. The form is intended to report the phone number and the checkbox value (if checked) when the **Enter** button is pressed. Unfortunately, the markup is full of errors. Identify each of the mistakes, and rewrite the HTML correctly.




```
<form href="process.html" method="post">
<label>Phone number: </label>
<input name="phone" value="555-1212" /><br>
<label>Unlisted? </label>
<input type="checkbox" value="unlist" checked="no" /><br>
<button text="Enter">
<button text="Reset" action="reset">
</form>
```

Everything Named Bob (12 points)

In the web page fragment below, the word "Bob" has been used in a number of identifier roles. Suppose that you wanted to change this so that it uses different identifiers wherever possible. In order for the page to function as intended, some uses of "Bob" will have to remain the same as each other even as they are replaced with some other identifier. Using their alphabetic labels, list all groups of identifiers that must be kept together to avoid breaking the page.

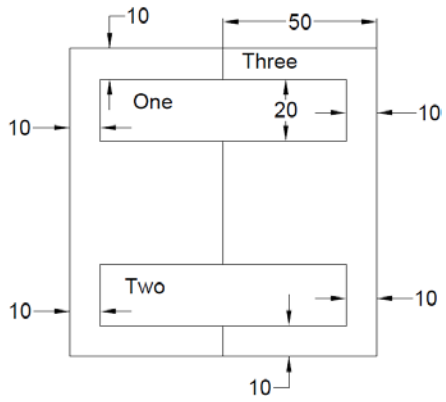
```
<script src="cookie.js"></script>
<script>
function Bob(Bob) {
    Bob = document.getElementById(Bob).value
    setCookie("Bob",Bob)
}
</script>
<input type="text" id="Bob" value="Bob" onChange="Bob('Bob')" />
```

A B C D E F G H I J

Layout (16 points)

Consider the following piece of HTML:

```
<body>
<div id="one">One</div>
<div id="two">Two</div>
<div id="three">Three</div>
</body>
```



Suppose that you wanted the layout to look like the picture at right, where all dimensions are a percentage of the window size (i.e., 10 means 10%). Write a short set of CSS rules that would produce the desired result. (Don't worry about the coloring or the borders; just the dimensions and positioning.)

Cookies (16 points)

True or false?

a.) Cookies set without an expiration date last forever.
b.) You can delete a cookie by setting an expiration date in the past.
c.) If you set a persistent cookie, shut down the computer, and then return to the same web site, it will still be available.
d.) All stored cookies are accessed through the document object model via **`document.cookie`**.
e.) Cookies set in one browser will be visible to the same site in a different browser.
f.) Cookies set by one web site are usually visible to any other web site that knows the appropriate key.
g.) Even if you don't know what key values have been used to store cookies, you can figure it out by looking at **`document.cookie`**.
h.) Cookies were given their name by an obscure employee at Microsoft.

Javascript (20 points)

Rewrite the Javascript function shown below in order to accomplish the stated goals. For each item, you only need to rewrite the lines that will change.

```
<script>
function moveIt() {
  for (i = 0; i < 10; i++) {
    setTimeout('document.getElementById("box").style.bottom = "'+10*i+'px"',100*i)
  }
}
</script>
```

<style> #box {height: 25px; width: 25px; background-color: red; position: relative; }</style>

a.) Move the element leftwards instead of upwards
b.) Move half as far, in the same amount of time and same number of steps.
b.) Move the same distance, in the same amount of time, with double the number of steps
c.) Move an element with any arbitrary id (supplied as an a parameter to the function).
d.) Describe how you would change the function to move the box **relative to its starting position**. (You don't need to write the code for this one, just describe the steps.)