Round 2 Evaluation

Week 11 (Section B)

Question 1 (html)

Do necessary corrections

Find and fix the missing elements

Shipping Name: [   ]
Billing Name: [   ]
Email: [   ]
Card Type: [Select a Credit Card ▾]
Card #: [   ]
Expiry: [- - - - - - - - - - - - - 📅]
☑ Keep me informed
[Submit] [Clear]

[Select a Credit Card ▾]

Select a Credit Card
Visa
MasterCard

2025			
Jan	Feb	Mar	**Apr**
May	Jun	Jul	Aug
Sep	Oct	Nov	Dec
Clear			This month

```html
<form method="POST">
    <label for="shippingName">Shipping Name: <input id="shippingName" name="shippingName" type="text"></label><br>
    <label>Billing Name: <input name="billingName" value="text"></label><br>
    <label>Email: <input name="email" type="text">
    </label><br>
    <label>Card Type:
      <select name="cardType">
        <option value="">Select a Credit Card</option>
      </select>
    </label><br>
    <label>Card #: <input name="cardNumber" type="number">
    </label><br>
    <label>Expiry: <input name="expiryDate" type="date">
    </label><br>
    <label><input type="checkbox" name="keepInformed" checked> Keep me informed</label><br>
</form>
```
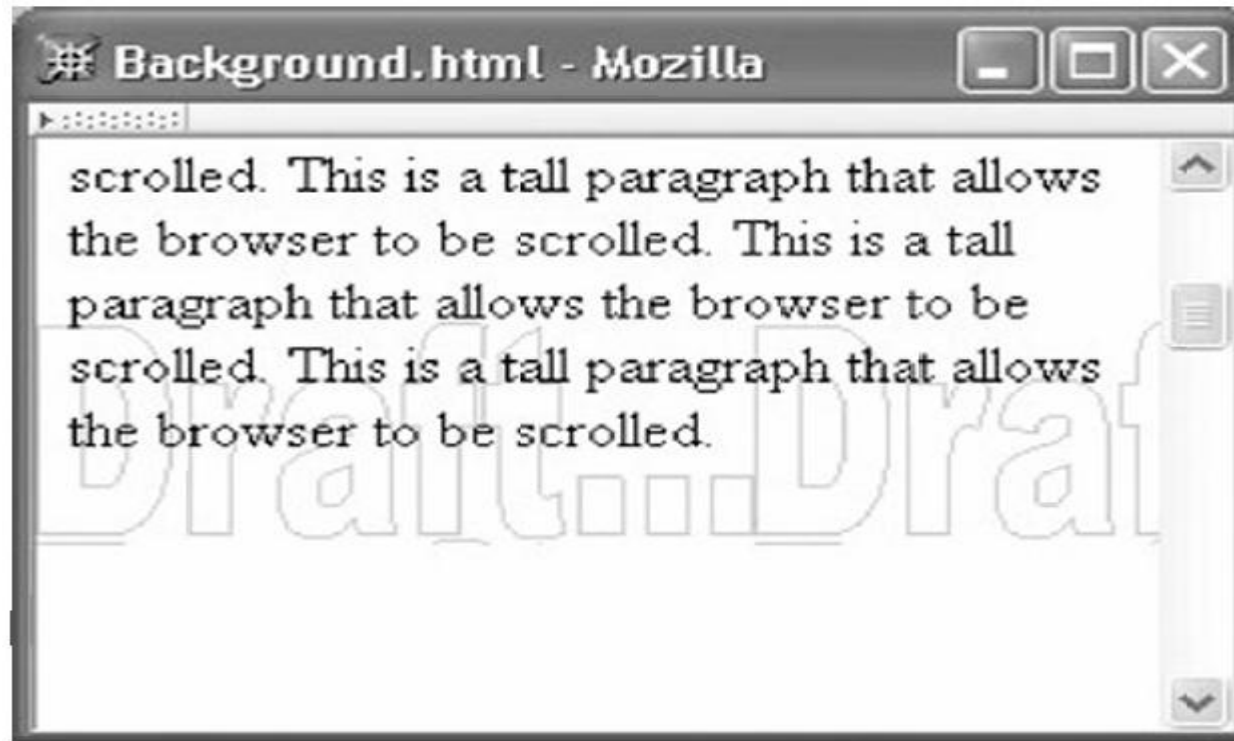
Question 2 (css)

Question 2 (css)

Give a style sheet rule for the body element of a document that will cause a background image to be repeated across the vertical center of the browser client area. The image should remain in the center of the window even if the window is scrolled (see Fig. below in which "Draft..." is an image).

Question3 (JS)

Question 4 (JS)

4.12. Write a function `median()` that accepts a one-dimensional array containing an odd number of integers as its single argument and returns the median value stored in the array (this is the value of the middle element of a sorted version of the array). The argument array should not be modified.

Keywords to Recognize in Good Answers

- ✓ Math.floor(...)

- ✓ arr.slice() or [...arr]

- ✓ .sort((a, b) => a - b)

- ✓ return sortedArray[middleIndex]

The median is the middle value of a sorted list of numbers.
- ✓ If the list has an **odd number** of elements, the median is the **center value**.
- ✓ If the list has an **even number**, the median is the **average of the two center values**.

Demonstrate how you practically run this example by briefly explaining your thoughts and minimal possible code.

4.10. What is the output of the following JavaScript program? Explain why this output is produced.

```
function rusty(a) {
  this.x = a;
  return;
}
var o1 = new Object();
var o2 = new Object();
o1.rusty = rusty;
o2.rusty = o1.rusty;
o1.rusty(1);
o2.rusty(2);
window.alert(o1.x + "," + o2.x);
```

Question 5 (Event Loop)

Q5: Writ a detailed technical note on JS event loop mechanism. Use block diagram/call stack, code snippet , queues and promise description to get full reward to answer

Compulsory Bonus Question 6

(a) Assume yourself as future supervisor of BSCS 633 IAD course

Briefly explain the one-topic that you love to teach/explain/speak about. You can pick the topic that is even not covered yet in class but is tightly relevant to IAD.
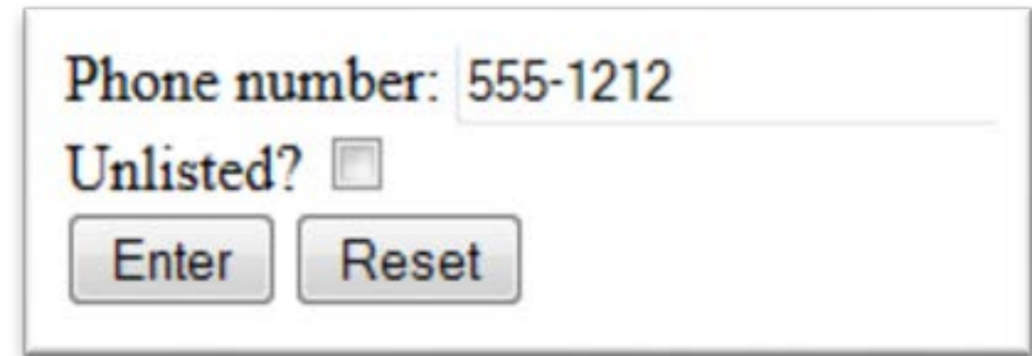
(b) Design/propose, one best question for final exam

Round 2 Evaluation

Week 11 (Section A)

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.

Phone number: 555-1212
Unlisted? ☐
Enter   Reset

```
<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>
```

3.10. Create an HTML document and CSS style sheet that together produce the stairstep effect shown in Figure 3.45. The right sides of the steps should line up in the middle of the document, regardless of the width of the browser window. Also, each step should have the same height as all other steps, regardless of the number of lines of text contained in the step (see the lowest step in the figure, for example).
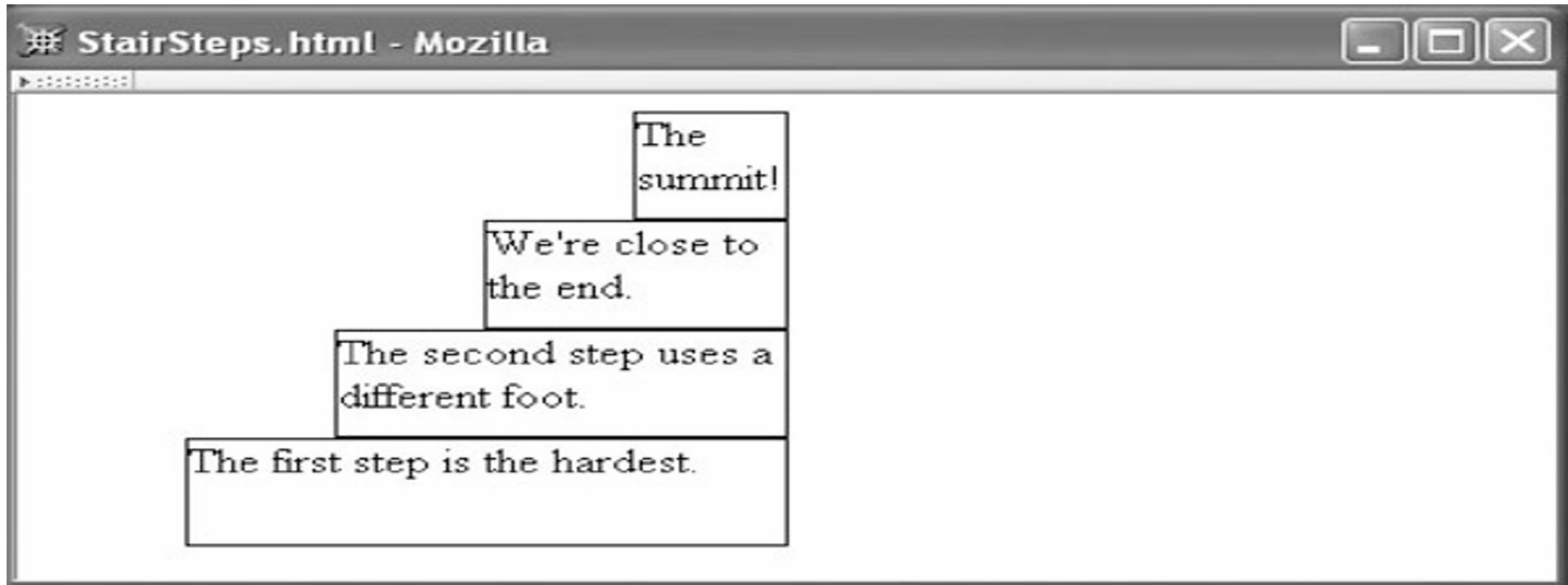

FIGURE 3.45 Stairsteps containing text.

4.10. What is the output of the following JavaScript program? Explain why this output is produced.

```
function rusty(a) {
  this.x = a;
  return;
}
var o1 = new Object();
var o2 = new Object();
o1.rusty = rusty;
o2.rusty = o1.rusty;
o1.rusty(1);
o2.rusty(2);
window.alert(o1.x + "," + o2.x);
```

Q4:Either complete the following using appropriate words or clearly state Restful API design principals on your own ?

Five (5) RESTful APIs Design Principals

✓ _____ : Each request from a client contains all the information

needed for processing, and the server does not store client state.

✓ _____ **Architecture**: The client and server are independent; they

communicate via HTTP requests and responses.

✓ **Uniform** _____: Consistent resource identification (URLs), resource

manipulation via representations (JSON, XML), and standard status codes.

✓ _____ : Responses can be cached to improve performance.

✓ _____ **System**: The client does not need to know whether it is directly

communicating with the server or an intermediary.

Q5: Writ a detailed technical not on JS event loop mechanism. Use block diagram/call stack, code snippet and promise description to get full reward to answer

Q6: Writ a detailed technical note on JS event loop mechanism. Use block diagram/call stack, code snippet and promise description to get full reward to answer

Q7: Recall todays lecture and briefly describe any 3 concepts at your best.

Compulsory Bonus Question 8

(a) Assume yourself as future supervisor of BSCS 633 IAD course

Briefly explain the one-topic that you love to teach/explain/speak about. You can pick the topic that is even not covered yet in class but is tightly relevant to IAD.

(b) Design/propose, one best question for final exam