

University of Washington, CSE 154

Lab 10: Final Exam Practice

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Basic lab instructions

- Make sure to click the **Attendance Check-In** link on the Labs page to get your participation points.
- You may want to **bring your textbook** to labs to look up syntax and examples.
- Have a question? **Ask a TA** for help, or look at the book or [lecture slides](#).
- We encourage you to **talk to your classmates**; it's okay to share code and ideas during lab.
- You don't have to finish all of the exercises. Just do as much as you can in the allotted time. You don't need to finish the rest after you leave the lab; there is no homework from lab.

Exercise 1: HTML/CSS Interpreting

Draw what the following HTML/CSS would look like in the browser. (For an image, just draw a smiley face.)

```
<!DOCTYPE html><html><body>
<h1>What a <em>great</em> page!!</h1>
<div id="content">
  
  <div>
    <p>
      I never saw a purple cow,
      I never hope to see one.
      But I can tell you anyhow
      I'd rather <em class="sp">see</em>
      than be one.</p>
  </div>
  <p>Copyright 2007<br />CSE.</p>
  <p>This <br /> is <br />
    the <br /> end!</p>
</div>
<div>What about me?</div>
</body></html>
```

HTML

```
| *           { margin: 0; }
| body       { font-size: 24px; }
| #content   { width: 33%;
|             margin: auto;
|             border: 2px black dashed; }
| p img      { float: right; }
| em         { font-weight: bold; }
| em.sp      { font-size: 48px;
|             text-decoration: underline; }
| #content > p { background-color: #ccc;
|             float: right; }
```

CSS

Exercise 2: JavaScript/DOM

Write JavaScript code so that when the page loads, *all* tables will taken on a "chess board" appearance by coloring every other cell with a black background and white text.

- For even rows (#0, 2, 4, etc.), even cells should be changed; for odd rows (#1, 3, 5, etc.), odd cells should be changed. (The page's CSS file has a class named `chess` that you can attach to the affected black cells.)
- Note that the number of rows in one table should not affect the striping for another table.

Name	Home	Bounces	Height	Weight	Age
Snuggles	FabricLand	7	2'7"	34 lbs	12
Horseface	PonyVille	13	6'1"	217 lbs	37
Cornelius	Nebraska	3	3'1"	52 lbs	24
Tigger	Hundred-Acre Wood	1000	4'8"	85 lbs	15

Exercise 3: Ajax/XML

Write the complete JavaScript code to fetch XML data about rectangles and display it on the current page.

- The data comes from a page `rect.php` in the same directory as your code. When contacted with no parameters, it outputs a group of rectangles to draw on the page, such as:

```
<shapes>
  <rectangle x="10" y="40" width="100" height="30" color="FFFF00" />
  <rectangle x="190" y="10" width="20" height="60" color="9000DD" />
  <rectangle x="30" y="120" width="90" height="55" color="00BB88" />
</shapes>
```

XML

- Process the XML and display each rectangle as an absolutely-positioned `div` of the right position/ size/ color. Add it to the `div` with `id` of `rectanglearea`:

```
<body> ... <div id="rectanglearea"></div> ... </body>
```

HTML

Exercise 4: PHP

Write a PHP web service `lookup.php` that looks up a name in a file and outputs a URL about the person.

- You will be given a full name as a GET parameter `name`. Assume that the parameter is always passed.
- Read data from a file `employees.txt`. Full name, username, and position are separated by tabs:

Morgan Doocy	mdoocy	Devourer of Souls!!!!
Conner Q. Reilly	con74	Director of Archives
Marla Jeffries	mjeff	Lamination Tzar

- If the name is matched, output a URL with the employee's name/title, in the following format:

`http://www.awesomeco.com/PositionNameWithoutSpaces/userName`

- For example, `lookup.php?name=Conner+Q.+Reilly` produces the following output:

<code>http://www.awesomeco.com/DirectorofArchives/con74</code>
--

- If the name is not matched, output the URL: `http://www.awesomeco.com/`

Exercise 5: SQL

Write an SQL query to show all actors who share the same last name and were in a movie together. Display the first names, last name, and movie name. Do not match up an actor with him/herself. Order by last name.

```

+-----+-----+-----+-----+
| first_name | first_name | last_name | name |
+-----+-----+-----+-----+
| Bill (I)   | Frankie J. | Allison   | Ocean's Eleven |
| Anthony   | Frankie J. | Allison   | Ocean's Eleven |
| Anthony   | Bill (I)   | Allison   | Ocean's Eleven |
| J. Todd   | Sharon     | Anderson  | Fargo          |
| ...       | ...       | ...       | ...           |
| Elenor    | Rowan     | Witt     | Matrix, The   |
| Ben (I)   | Samuel E. | Wright   | Little Mermaid, The |
+-----+-----+-----+-----+

```

134 rows in set

SQL

Recall that the imdb database contains the following tables:

actors				movies			roles		
id	first_name	last_name	gender	id	name	year	actor_id	movie_id	role
433259	William	Shatner	M	112290	Fight Club	1999	433259	313398	Capt. James T. Kirk
797926	Britney	Spears	F	209658	Meet the Parents	2000	797926	342189	Herself
...					

Exercise 6: PHP, HTML, SQL

Write the PHP code to display all the results from the preceding SQL query in two ordered lists.

- The first list should show last names that start with A-J inclusive, and the second shows K-Z names.
- Write a function `display_last_names` that displays these two lists, as shown below:

```
<!DOCTYPE html>
<html>
...
<body>
  <?php
    display_last_names ();
  ?>
</body>
</html>
```

PHP

Your code should produce the following output (abbreviated):

```
<ol>
<li>Allison, Anthony / Bill (I): Ocean's Eleven</li>
<li>Allison, Anthony / Frankie J.: Ocean's Eleven</li>
<li>Allison, Bill (I) / Frankie J.: Ocean's Eleven</li>
<li>Anderson, George (IV) / Jo (I): JFK</li>
...
<li>Jones, Annette / James Earl: Star Wars</li>
<li>Jones, Annette / Linda (I): Star Wars</li>
<li>Jones, James Earl / Linda (I): Star Wars</li>
</ol>
<ol>
<li>Kennedy, Caroline / Ethel (II): JFK</li>
<li>Kennedy, Caroline / Jacqueline (I): JFK</li>
...
<li>Witt, Elenor / Rowan: Matrix, The</li>
<li>Wright, Ben (I) / Samuel E.: Little Mermaid, The</li>
</ol>
```

HTML

- You may have to give unique names to columns in your query, so you can access the columns in your PHP code. Do not use `print/echo` statements. You do not need to check for MySQL errors.