

# University of Central Florida

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE

## COMPUTER SCIENCE DIVISION

### CIS 4004 Web Based Information Technology

#### Assignment 3

**Due, Wednesday, April 5, 2023 for 100% credit**

**Thursday, April 6, 2023 for 90% credit**

**Friday, April 7, 2023 for 80% credit**

**Saturday, April 8, 2023 for 70% credit**



#### Assignment scope

This assignment is focused on writing PHP and will create an electronic version of a Bingo board. This assignment will require students to randomly generate a Bingo board.

#### Resources

##### xampp

1. Use the popular bundled tool XAMPP (i.e. pronounced 'zamp')
  - a. <https://www.apachefriends.org/download.html>
2. What to do with XAMPP once installed
  - a. Run **XAMPP**
  - b. Click the **Start** button for **Apache**
  - c. Your source code should go in the **xampp/htdocs** folder, wherever you installed **XAMPP**
  - d. To view in the web browser you would type **localhost/bingo.php**; if you added additional folder(s) under the **htdocs** folder, include that in your URL (example:  
localhost/CIS4004/Assignment3/bingo.php)

**Files provided**

1. bingo\_template.php
2. bingo.css
3. jquery-2.1.0.js

**Assignment submission**

Create a single folder for the files. Compress the folder and submit the compressed file (e.g. .zip)

**Tasks**

Activity	
<b>bingo.css</b>	<ol style="list-style-type: none"> <li>1. Modify the provided style settings               <ol style="list-style-type: none"> <li>a. html, body                   <ol style="list-style-type: none"> <li>i. background-color</li> <li>ii. color</li> </ol> </li> <li>b. .data                   <ol style="list-style-type: none"> <li>i. background-color</li> <li>ii. color</li> </ol> </li> <li>c. .title                   <ol style="list-style-type: none"> <li>i. color</li> </ol> </li> <li>d. table tr:nth-child(3) td:nth-child(3)                   <ol style="list-style-type: none"> <li>i. color</li> </ol> </li> </ol> </li> </ol>
<b>bingo.php</b>	<ol style="list-style-type: none"> <li>1. In the <b>&lt;head&gt;</b> use the <b>&lt;style&gt;</b> element to include bingo.css               <ol style="list-style-type: none"> <li>a. Inside the open/close <b>&lt;style&gt;</b> tags nest escaping to PHP                   <ol style="list-style-type: none"> <li>i. include 'bingo.css';</li> </ol> </li> </ol> </li> </ol>
<b>bingo.php</b>	<ol style="list-style-type: none"> <li>2. In the <b>&lt;head&gt;</b> use the <b>&lt;script&gt;</b> element to include jquery-2.1.0.js               <ol style="list-style-type: none"> <li>a. Inside the open <b>&lt;script&gt;</b> tag                   <ol style="list-style-type: none"> <li>i. type="text/javascript"</li> <li>ii. src="jquery-2.1.0.js"</li> </ol> </li> </ol> </li> </ol>
<b>bingo.php</b>	<ol style="list-style-type: none"> <li>3. In the <b>&lt;head&gt;</b> use the <b>&lt;script&gt;</b> element to define JavaScript/jQuery function <b>setFree()</b> <ol style="list-style-type: none"> <li>i. Declare loop control variable <b>row</b> initialized to <b>-1</b></li> <li>ii. Iterate through the rows of the table, use jQuery selector to select <b>"table tr"</b>, append function call <b>each()</b>, pass to function <b>each()</b> anonymous function to</li> </ol> </li> </ol>

	<p>do the following</p> <ol style="list-style-type: none"> <li>1. Increment variable <b>row</b> by <b>1</b></li> <li>2. Declare variable <b>currentRow</b> set equal to jQuery selector <b>\$(this)</b></li> <li>3. If the value of <b>row</b> equals <b>2</b> <ol style="list-style-type: none"> <li>a. Reference variable <b>currentRow</b>, append function <b>find()</b>, pass as an argument <b>"td:eq(2)"</b>, append function call <b>text()</b>, pass as an argument <b>"FREE"</b></li> </ol> </li> </ol>
<b>bingo.php</b>	<ol style="list-style-type: none"> <li>4. In the <b>&lt;body&gt;</b>, inside the escaping to PHP do the following <ol style="list-style-type: none"> <li>a. Define constant <b>SIZE</b> with the value of <b>5</b></li> <li>b. Define constant <b>BR</b> with the value of <b>"&lt;br /&gt;\n"</b></li> <li>c. Declare variable <b>columns</b> set equal to the array constructor <ol style="list-style-type: none"> <li>i. Call function <b>range()</b>, passing arguments <b>1, 15</b></li> <li>ii. Call function <b>range()</b>, passing arguments <b>16, 30</b></li> <li>iii. Call function <b>range()</b>, passing arguments <b>31, 45</b></li> <li>iv. Call function <b>range()</b>, passing arguments <b>46, 60</b></li> <li>v. Call function <b>range()</b>, passing arguments <b>61, 75</b></li> </ol> </li> <li>d. Declare variable <b>bingo_card</b> set equal to the array constructor</li> <li>e. Iterate five times for each row <ol style="list-style-type: none"> <li>i. Declare variable <b>\$random_keys</b> set equal to function call <b>array_rand()</b>, passing arguments <ol style="list-style-type: none"> <li>1. array <b>\$columns</b> with index of the loop control variable</li> <li>2. <b>5</b></li> </ol> </li> <li>ii. Declare variable <b>\$random_values</b> set equal to function call</li> </ol> </li> </ol> </li> </ol>

**array\_intersect\_key()**, passing arguments

1. array **\$columns** with index of the loop control variable
  2. function call **array\_flip()**, passing variable **\$random\_keys**
- iii. Set variable **\$bingo\_card** equal to function call **array\_merge()** passing arguments
1. variable **\$bingo\_card**
  2. variable **\$random\_values**
- f. Build the HTML by doing the following
- i. Create an **<h1>** the word **Bingo** using class **title**
  - ii. Create a **<div>** with the id **board**
    1. Create a **<table>** with class **container**
    2. Iterate through the **5** rows
      - a. Create a **<tr>** with class **row**
        - i. Create a **<td>** with class **data**, concatenate variable **\$bingo\_card** with index of the loop control variable
        - ii. Create a **<td>** with class **data**, concatenate variable **\$bingo\_card** with index of the loop control variable + **5**
        - iii. Create a **<td>** with class **data**, concatenate variable **\$bingo\_card** with index of the loop control variable + **10**
        - iv. Create a **<td>** with class **data**,

	<p>concatenate variable <b>\$bingo_card</b> with index of the loop control variable + <b>15</b></p> <p>v. Create a <b>&lt;td&gt;</b> with class <b>data</b>, concatenate variable <b>\$bingo_card</b> with index of the loop control variable + <b>20</b></p> <p>b. Create the closing <b>&lt;/tr&gt;</b> for the row</p> <p>3. Call JavaScript function <b>setFree()</b> to update the FREE space</p> <p>4. Create the closing <b>&lt;/table&gt;</b> for the table</p> <p>iii. Create the closing <b>&lt;/div&gt;</b> for id='board'</p>
<b>Test Cases</b>	
<b>Test Case 1</b>	Rendered PHP page looks similar to Figure 1
<b>Test Case 2</b>	Reloading the page results in a new Bingo board



Figure 1 bingo.php