CIS-413 ASSIGNMENT 1

Due Date: Thursday, February 18th, 2016.

General

- This assignment is only being submitted to the drop-box.

- Do not ftp this to our server.

- Work individually only.

- Collaboration, group work, etc. is strictly prohibited.

- If you notice any typo, errors or something that seems out of place let me know so that I can alert the class.

- As always keep an eye on Blackboard during the project period for any information that may be reported.

- Zip your entire lastname folder into a Zip Archive for the drop-box.

- I do not accept formats other than zip so if you decide not to follow instructions you will earn grade = 0.

- Make sure you html file is html5 compliant and validates at https://validator.w3.org/

- When copying and pasting the meta tags the double quotes may throw validation errors. Just re-type them in your html editor.

- Update events to use addEventListener().

- Keep all script and css files external.

- Use the Bootstrap framework.

At the end of this assignment your assignment folder should be arranged as follows:

```
lastname
        |---index.html
        |
        |---css  - {bootstrap}
        |
        |—js - {bootstrap}
        |                    |
        |--- fonts  - {bootstrap}
        |
        |--- styles
        |             |--- (any additional styles you may need)
        |
        |--- jsgame
        |             |--- fourArray.js
        |             |--- game.js
        |
```

The index.html is where the game will reside. All external JavaScript files for the game will be in the **jsgame** folder as indicated in the figure.

Any additional css needed will reside in the **styles** folder.   The **css**, **js**, and **fonts** folders all belong to bootstrap. Use the latest edition of bootstrap available.

index.html

Consider the index.html. Include the following <meta> tags:

```
<meta name="description" content="The Department of Computer Informa-
tion Systems at Buffalo state College provides a four year undergradu-
ate degree program in information technology, systems administration,
network administration, internet programming, database programming,
and project management." />
```

```
<meta name="keywords" content="buffalo state college, computer infor-
mation systems, cis, buffalo, undergraduate, IT, college, SUNY, State
University of New York, information technology, 413, internet program-
ming, xhtml, css, javascript" />
```

Unscramble Game

Create a game that grabs a four letter word from an array and asks the player to unscramble it. An array of four letter words is provided in the assignment archive. The game will make use of JavaScript string functions and arrays so make sure to review these topics thoroughly before running to code.

Included in the project archive is an html file named unscrambled.html. This file contains basic JavaScript functions that you will need to make the game as well as form elements and an unordered list. The contents of this file will be used to construct you index.html file. Part of what you are required to do is place these elements in the proper location in your CSS template and make use of Bootstrap. The external JavaScript file that contains the array will be located in **jsgame** folder. All Javascript that we create will also be in an external file (game.js) in the **jsgame** folder.

Basically, repeat what we did with Rock, Paper, Scissors by updating the events, using Bootstrap, etc.

The basic functionality of the code generates a random integer, uses this integer as an index into the array to select a word and then scramble the word. Game play is as follows:

- The player has four chances to unscramble the word; your code must keep track of and decrement (increment) this number.

- The player enters a guess in the text box, and clicks the button. Is the word the player entered the word the game is looking for?

- The game updates and displays the appropriate status messages in the unordered list depending on game state.

- The new game button will generate a new word and reset the game state including the counter and status message.

You are required to complete the game by adding the needed attributes to the text box, the buttons; other html tags as needed and of course the JavaScript. All the JavaScript code will be placed in the script tag in the head section of the page. Wherever you see wwww in the file think of the word that should be substituted during game play.

You are also required to style the form (and any other html) and make sure it appears neatly in your document. Bootstrap components or css should accomplish this for you. The text in the unordered list represents game state. These messages in the demon-

stration file are there for your reference. Feel free to modify them to better communicate to the player the beginning, middle (game play) and end of the game.

There are three other html files in the archive. These files need to be studied because they all show a technique that may be useful or needed to complete the project. The scoping file in particular demonstrates the way JavaScript shares variables between functions and script level code. Make sure you study and understand this important file.

The other files demonstrate how to read and write to a tag using the innerHTML property. This will be needed in order to update the list item text in the unordered list. In particular, you should pay attention the use of the id-attribute and the getElementById() method.

Caution

Make sure you inspect the code for consistency. I have tried to name all the tags that need id's-attributes and I tested the events. However, something may have slipped past so be sure to examine everything and test as you go to avoid any copy and paste bugs or problems that I may have inadvertently caused. If you notice something send me an email and I will communicate it to the class. The file is in xhtml 1.0 and needs to be updated to html5. Using the Bootstrap layout should automatically take care of this.