Lab 3 – CSS/JavaScript

Objective

After this lab session, you will
- Review on how to do a cascading menu with CSS
- Get a brief understanding of JavaScript
- Learn how to create web pages using both HTML code and JavaScript
- Learn the different functions in JavaScript

Introduction

1. JavaScript is a light-weight programming language

2. JavaScript ≠ Java

3. JavaScript can be

    a. embedded inside a HTML file directly
    b. stored as a stand-alone file, and called by a HTML file

CSS Cascading Menu

1. A sequence of screen shots shows how the menu works. Try out the code. Can you change the menu to have a horizontal expansion at the first level and vertical for the second level?
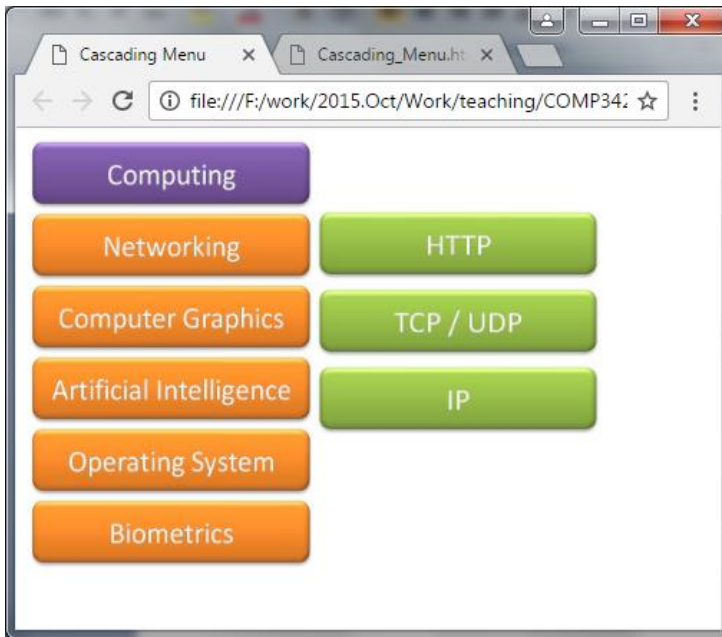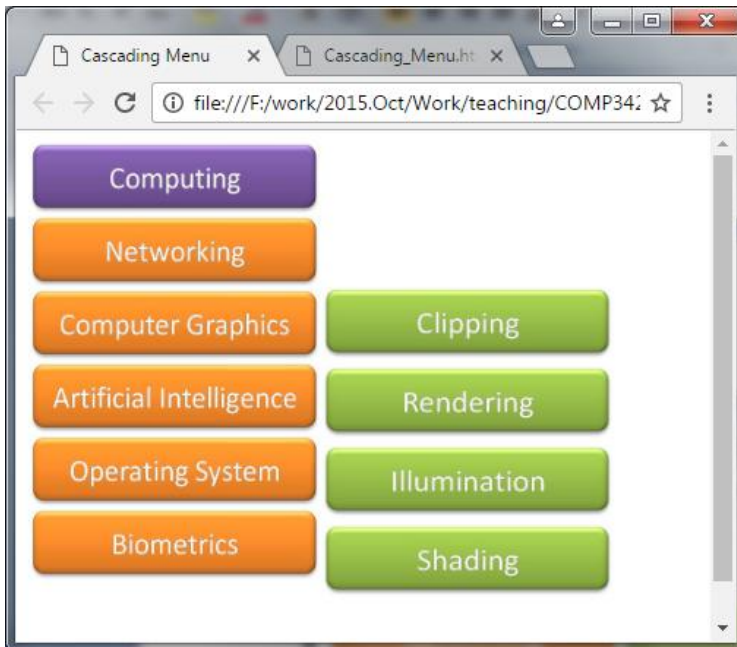
Initial screen
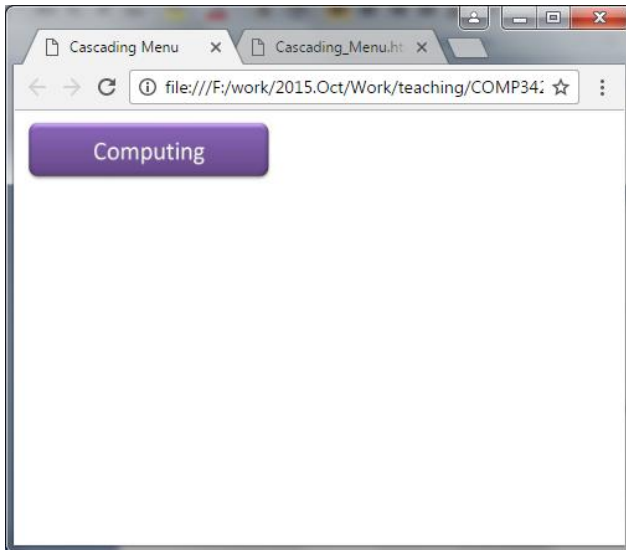
When mouse cursor is placed on top of the COMPUTING BUTTON

When mouse cursor is placed on top of the NETWORKING BUTTON

When mouse cursor is placed on top of the COMPUTER GRAPHICS BUTTON

```
<html>

<head>

<title>Cascading Menu</title>

<style type="text/css">

    img     {width: 200px; height:50px; border:0px}

    div.menu {position:absolute; top:5}

    div.menu div {display:none}

    div.menu div a {display:none}

    div.menu div.networking {position:absolute; top:50px; left:0px}

    div.menu div.graphics {position:absolute; top:100px; left:0px}

    div.menu div.ai {position:absolute; top:150px; left:0px}

    div.menu div.os {position:absolute; top:200px; left:0px}

    div.menu div.biometrics {position:absolute; top:250px; left:0px}

    div.menu:hover div {display:block}

    div.menu div:hover a {display:block}

    a.n1 {position:relative; left:200px; top:-55px}

</style> </head>

<body>

<div class="menu"><img src="img/computing.jpg"></img>


<div class="networking"><img src="img/networking.jpg"></img>

<a href="#" class="n1"><img src="img/networking/http.jpg"></img></a>

<a href="#" class="n1"><img src="img/networking/tcpudp.jpg"></img></a>

<a href="#" class="n1"><img src="img/networking/ip.jpg"></img></a>
```

4

```
</div>

<div class="graphics"><img src="img/graphics.jpg"></img>

<a href="#" class="n1"><img src="img/graphics/clipping.jpg"></img></a>

<a href="#" class="n1"><img src="img/graphics/rendering.jpg"></img></a>

<a href="#" class="n1"><img src="img/graphics/illumination.jpg"></img></a>

<a href="#" class="n1"><img src="img/graphics/shading.jpg"></img></a>

</div>

<div class="ai"><img src="img/ai.jpg"></img></a>

<a href="#" class="n1"><img src="img/ai/ann.jpg"></img></a>

<a href="#" class="n1"><img src="img/ai/ga.jpg"></img></a>

<a href="#" class="n1"><img src="img/ai/fuzzy.jpg"></img></a>

<a href="#" class="n1"><img src="img/ai/rulebased.jpg"></img></a>

</div>

<div class="os"><img src="img/os.jpg"></img></a>

<a href="#" class="n1"><img src="img/os/scheduling.jpg"></img></a>

<a href="#" class="n1"><img src="img/os/vm.jpg"></img></a>

<a href="#" class="n1"><img src="img/os/filesys.jpg"></img></a>

</div>

<div class="biometrics"><img src="img/biometrics.jpg"></img></a>

<a href="#" class="n1"><img src="img/biometrics/finger.jpg"></img></a>

<a href="#" class="n1"><img src="img/biometrics/palm.jpg"></img></a>

<a href="#" class="n1"><img src="img/biometrics/voice.jpg"></img></a>

</div>

</div>  </body> </html>
```

Javascript Basics

2. Create a new web page called **01.html** with the following code, you are going to understand the basic structure of JavaScript in a html file

```
<html>
        <head>
                <title>COMP3421</title>
                <script type="text/javascript">
                document.write("<h1>Hello World!</h1>");
                </script>
        </head>
        <body>
        </body>
</html>
```

3. Create a new web page called **02.html** with the following code, you are going to learn how to link with the external JavaScript and call the **Random** function.

```
<html>
     <head>
            <title>COMP3421</title>
            <script type="text/javascript" src="luckyNumber.js">
            </script>
     </head>
     <body>
            <form>
            <input type="button" value="Click me!" onclick="displaymessage()" />
            </form>
     </body>
</html>
```

Create a JavaScript file called **luckyNumber.js** with the following code, store it in the same directory with **02.html**

```
function displaymessage()
{
        var number = Math.floor( 1 + Math.random() * 50 );
        alert("Your Lucky Number Today is: " + number);
}
```

4. Create a new web page called **03.html** with the following code, you are going to understand how to get the parameters input into the function and use **switch case** to do the conditional checking.

```html
<html>
<head>
<title>COMP3421</title>
<script type = "text/javascript">
function luckymsg()
{
        var msg = "";
        var luckyvalue = document.getElementById("luckyvalue").value;
        switch (luckyvalue)
        {
          case "1":
                msg = "Congratulations! You're so Lucky Today!";
                break;
          case "2":
                msg = "Well, it should be a nice day to you!";
                break;
          case "3":
                msg = "Sorry, you may meet some unlucky things today! Be careful!";
                break;
          default:
                msg = "Error Input!";
        }
        alert(msg);
}
</script>
</head>
<body>
        <h2>Please Input a value [1, 2 or 3]</h2>
        <form>
                <input type="text" id="luckyvalue" />
                <input type="button" value="Calculate!" onclick="luckymsg()" />
        </form>
</body>
</html>
```