**University of Wolverhampton**

**School of Engineering, Computational and Mathematical Sciences**

**5CS020 Human-Computer Interaction**

**Workshop 3 – HTML, CSS and JavaScript**

**Part 2 JavaScript**

A script is a small piece of program that can add interactivity to your website. For example, a script could generate a pop-up alert box message, or provide a dropdown menu. This script could be written using JavaScript. You can write various small functions, called event handlers using any of the scripting language and then you can trigger those functions using HTML attributes.

You can keep JavaScript code in a separate file and then include it wherever it's needed, or you can define functionality inside HTML document itself.

**External JavaScript**

If you are going to define a functionality which will be used in various HTML documents then it's better to keep that functionality in a separate JavaScript file and then include that file in your HTML documents. A JavaScript file will have extension as .js and it will be included in HTML files using <script> tag. Consider we define a small function using JavaScript in script.js which has following code

function Hello() {

alert("Hello, World");

}

Now let's make use of the above external JavaScript file in our following HTML document

<!DOCTYPE html>

<html>

<head>

<title>JavaScript External Script</title>

<script src = "script.js" type = "text/javascript"/></script>

</head>

<body>

<input type = "button" onclick = "Hello();" name = "ok" value = "Click Me" />

</body>

</html>

Produces



And when you click the button

Graphical user interface, application, Word

Description automatically generated

**Internal Script**

You can write your script code directly into your HTML document. Usually we keep script code in header of the document using <script> tag, otherwise there is no restriction and you can put your source code anywhere in the document but inside <script> tag.

<!DOCTYPE html>

<html>

<head>

<title>JavaScript Internal Script</title>

<script type = "text/JavaScript">

function Hello() {

alert("Hello, World");

}

</script>

</head>

<body>

<input type = "button" onclick = "Hello();" name = "ok" value = "Click Me" />

</body>

</html>

Produces



And when you click the button

Graphical user interface, application, Word

Description automatically generated

**Event Handlers**

Event handlers are nothing but simply defined functions which can be called against any mouse or keyboard event. Let's write one simple function EventHandler() in the header of the document. We will call this function when any user brings mouse over a paragraph.

<!DOCTYPE html>

<html>

<head>

<title>Event Handlers Example</title>

<script type = "text/JavaScript">

function EventHandler() {

alert("I'm event handler!!");

}

</script>

</head>

<body>

<p onmouseover = "EventHandler();">Bring your mouse here to see an alert</p>

</body>

</html>

Produces

Text

Description automatically generated with medium confidence

And when you hover over the text

Graphical user interface, application, Word

Description automatically generated

That’s it for today.