

## Week 5 Lab 1

### The Document Object Model

#### 1. createElement

- i. Create a new html file and name it 'DOM.html' using a code editor of your choice.
- ii. In DOM.html, fill in HTML5 doctype declaration, html, head, title and body elements.
- iii. Between body element opening and closing tags, write the following code:

```
<button onclick="create()"> Click me! </button>
```

- iv. Between script element opening and closing tags, write the following code:

```
function create(){  
    var newElement = document.createElement("INPUT");  
    document.body.appendChild(newElement);  
}
```

- v. Save DOM.html, open it in your browser and observe the results.

#### 2. createTextNode

- i. In DOM.html, edit the javascript code as follows:

```
function create(){  
    var newElement = document.createElement("p");  
    newElement.appendChild(document.createTextNode("Hello World!"));  
    document.body.appendChild(newElement);  
}
```

- ii. Save DOM.html, open it in your browser and observe the results.

#### 3. removeChild

- i. In DOM.html, edit the javascript code as follows:

```
function create(){  
    var list = document.getElementById("myList");  
    list.removeChild(list.childNodes[0]);  
}
```

- ii. Edit your html code as follows:

```
<ul id="myList">  
    <li>Good morning</li>  
    <li>Good afternoon</li>  
    <li>Good evening</li>  
</ul>
```

```
<button onclick="create()"> Click me! </button>
```

- iii. Save DOM.html, open it in your browser and observe the results.

#### **4. childNodes**

- i. In DOM.html, edit the javascript code as follows:

```
function create(){  
    var child = document.body.childNodes;  
    for (var i=0; i<child.length; i++){  
        document.write(child[i].nodeName+"<br>");  
    }  
}
```

- ii. Edit your html code as follows:

```
<h1>Hello World!</h1>  
<p>Text goes here..</p>  
<button onclick="create()"> Click me! </button>
```

- iii. Save DOM.html, open it in your browser and observe the results.

## 5. **setAttribute**

- i. In DOM.html, edit the javascript code as follows:

```
function create(){  
    document.getElementsByTagName("H1")[0].setAttribute("class", "red");  
    document.getElementsByTagName("P")[0].setAttribute("class", "blue");  
}
```

- ii. Your html code remains as before:

```
<h1>Hello World!</h1>  
<p>Text goes here..</p>  
<button onclick="create()"> Click me! </button>
```

- iii. Add <style></style> element in DOM.html and add the following CSS code between style tags:

```
.red {  
    color: red;  
}
```

```
.blue {  
    color: blue;  
}
```

- iv. Save DOM.html, open it in your browser and observe the results.

## 6. setInterval, clearInterval

- i. In DOM.html, edit the javascript code as follows:

```
var t = setInterval(clock, 1000);  
  
function clock() {  
    var date = new Date();  
    var time = date.toLocaleTimeString();  
    document.getElementById("myClock").innerHTML = time;  
}  
  
function startClock() {  
    t = setInterval(clock, 1000);  
}  
  
function stopClock() {  
    clearInterval(t);  
    alert("Clock is stopped! Click 'start' to restart clock.");  
}
```

- ii. Edit your html code as follows:

```
<p id="myClock"></p>
```

```
<button onclick="stopClock()"> Stop </button>
```

```
<button onclick="startClock()"> Start </button>
```

- iii. Save DOM.html, open it in your browser and observe the results.