Lab 02: Working with JavaScript

Objective(s):

1. Learn Basic JavaScript
2. Working with DOM

Lab Task(s):

Exercises

1. Write a JavaScript function to get the values of First and Last name of the following form.

```
!DOCTYPE html>
<html>
      <head>
         <meta charset=utf-8 />
         <title>Return first and last name from a form </title>
      </head>
<body>
     <form id="form1" onsubmit="getFormvalue()">
        First name:
        <input type="text" name="fname" value="David"><br>
        Last name:
        <input type="text" name="lname"     value="Beckham"><br>
        <input type="submit" value="Submit">
     </form>
</body>
</html>
```

2. Write a JavaScript program to set the background color of a paragraph.

```
<!DOCTYPE html>
<html>

<head>
    <meta charset=utf-8 />
    <title>JS Bin</title>
</head>
```

```
<body>
    <input type="button" value="Click to set paragraph background
color" onclick="set_background()">
    <p>w3resource JavaScript Exercises</p>
    <p>w3resource PHP Exercises</p>
</body>

</html>
```

3. Here is a sample html file with a submit button. Write a JavaScript function to get the value of the href, hreflang, rel, target, and type attributes of the specified link.

```
<!DOCTYPE html>
<html>

<head>
    <meta charset=utf-8 />
</head>

<body>
    <p><a id="w3r" type="text/html" hreflang="en-us" rel="nofollow"
target="_self"
            href="http://www.w3resource.com/">w3resource</a></p>
    <button onclick="getAttributes()">Click here to get attributes
value</button>
</body>

</html>
```

4. Here is a sample html file with a submit button. Now modify the style of the paragraph text (such as fontSize, fontFamily, color, etc.)through javascript code.

```
<!DOCTYPE html>
<html><br>

<head>
    <meta charset=utf-8 />
    <title>JS DOM paragraph style</title>
```

```
</head>

<body>
    <p id='text'>JavaScript Exercises - w3resource</p>
    <div>
        <button id="jsstyle" onclick="js_style()">Style</button>
    </div>
</body>

</html>
```

5. Write a JavaScript function to add rows to a table.

```
<!DOCTYPE html>
<html>

<head><br>
    <meta charset=utf-8 />
    <title>Insert row in a table - w3resource</title>
</head>

<body>
    <table id="sampleTable" border="1">
        <tr>
            <td>Row1 cell1</td>
            <td>Row1 cell2</td>
        </tr>
        <tr>
            <td>Row2 cell1</td>
            <td>Row2 cell2</td>
        </tr>
    </table><br>
    <input type="button" onclick="insert_Row()" value="Insert row">
</body>

</html>
```

6. Given the following HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>
    <div class="header">
    </div>
    <section id="container">
        <ul>
            <li class="first">one</li>
            <li class="second">two</li>
            <li class="third">three</li>
        </ul>
        <ol>
            <li class="first">one</li>
            <li class="second">two</li>
            <li class="third">three</li>
        </ol>
    </section>
    <div class="footer">
    </div>
</body>
```

Write the code necessary to do the following:

1. Select the `section` with an id of `container` without using `querySelector`.
2. Select the `section` with an id of `container` using `querySelector`.
3. Select all of the list items with a class of "second".
4. Select a list item with a class of third, but only the list item inside of the `ol` tag.
5. Give the `section` with an id of `container` the text "Hello!".
6. Add the class `main` to the `div` with a class of `footer`.
7. Remove the class `main` on the `div` with a class of `footer`.
8. Create a new `li` element.
9. Give the `li` the text "four".
10. Append the `li` to the `ul` element.
11. Loop over all of the `li`s inside the `ol` tag and give them a background color of "green".
12. Remove the div with a class of `footer`.

7. Given the following HTML, create a `script.js` file to complete the first two parts.

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>DOM Exercise</title>
    <style>
        div {
          width: 50px;
          height: 50px;
          display: inline-block;
        }
        .brown{
          background-color: brown;
        }
        .green{
          background-color: green;
        }
        .blue{
          background-color: blue;
        }
        .purple{
          background-color: purple;
        }
        .yellow{
          background-color: yellow;
        }
        .car1 {
         background-color: #8C9C12;
        }
        .car2 {
         background-color: #1DA788;
        }
        .car1, .car2 {
            margin-left: 0;
        }
    </style>
</head>
<body>
    <h1 id="change_heading">Change Me!</h1>
    SELECTED COLOR <span class="selected">None!</span>
    <section>
        <div class="brown"></div>
        <div class="green"></div>
        <div class="blue"></div>
        <div class="yellow"></div>
    </section>
    <h2>Race!</h2>
    <button>Start the race!</button>
    <br>
    <div class="car1"></div>
    <br>
    <div class="car2"></div>
    <script src="script.js"></script>
</body>
```

```
</html>
```

1. Add the necessary code to wait for the DOM to load to make sure that anything you manipulate in the DOM has loaded. You can do this either using window.onload or adding an event listener for DOMContentLoaded.

2. Replace the text "Change me" with "Hello World!".

3. When a user hovers over one of the colored boxes change the text to display the color that is being hovered over.

4. Create a new div element.

5. Give your new div a class of purple and style it so that it has a background color of purple.

6. Append your new div to the page to the section tag.

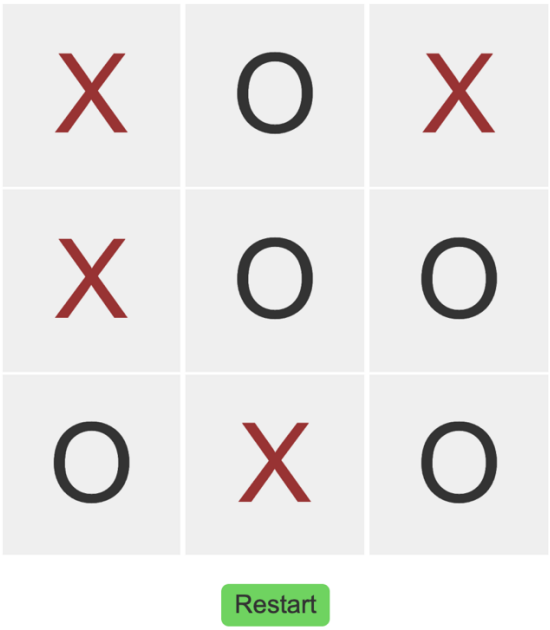
8. For this task you will be combining your knowledge of DOM access and events to build a todo app!

   As a user, you should be able to:

   - Add a new todo (by submitting a form)
   - Mark a todo as completed (cross out the text of the todo)
   - Remove a todo

   Now using localStorage, try to store your todos so that if you refresh the page you do not lose what you have added to the list! As a super bonus, try to also save todos that you have marked as complete!

9. Create a Tic Tac Toe game with two players. Following is a sample output.


X O X
X O O
O X O
Restart