

1. Select an <h2> tag with id of text and change its inner text to "Hello World".

ANS:

JavaScript can be used to achieve this action by first selecting the tag with the id "text" and then changing its inner text property to "Hello World" using the getElementById method. That's what we can do:

```
<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Change Inner Text of <h2> Tag</title>

</head>

<body>

<h2 id="text">Old Text</h2>

<script>

// Select the <h2> tag with id of "text"

var h2Element = document.getElementById("text");

// Change its inner text to "Hello World"

h2Element.innerText = "Hello World";

</script>

</body>

</html>
```

There is a <h2> tag in this HTML document with the id "text". The <script> tag's JavaScript code uses getElementById to select this element by its id and then modifies its inner text property to "Hello World". "Hello World" will be the new inner text of the <h2> tag when you open this HTML file in a browser.

2. Apply following style to the same h2 using Javascript DOM Method.

colour: red,
fontWeight: bold,
textTransform: uppercase

ANS:

```

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Change Inner Text and Apply Styles to <h2> Tag</title>
</head>
<body>
<h2 id="text">Old Text</h2>

<script>
// Select the <h2> tag with id of "text"
var h2Element = document.getElementById("text");

// Change its inner text to "Hello World"
h2Element.innerText = "Hello World";

// Apply styles to the <h2> element
h2Element.style.color = "red";
h2Element.style.fontWeight = "bold";
h2Element.style.textTransform = "uppercase";
</script>
</body>
</html>

```

3. Create a simple calculator that takes the input from input1, input 2 and add them together.

ANS:

```

<!DOCTYPE html>
<html lang="en">
<head>

```

```
<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Simple Calculator</title>

</head>

<body>

  <h2>Simple Calculator</h2>


  <label for="input1">Input 1:</label>

  <input type="number" id="input1"><br><br>


  <label for="input2">Input 2:</label>

  <input type="number" id="input2"><br><br>


  <button onclick="addInputs()">Add</button><br><br>


  <p id="result"></p>


  <script>

    function addInputs() {

      // Get the values from input1 and input2

      var input1Value = parseFloat(document.getElementById("input1").value);
      var input2Value = parseFloat(document.getElementById("input2").value);


      // Check if the input values are valid numbers
      if (isNaN(input1Value) || isNaN(input2Value)) {

        document.getElementById("result").innerText = "Please enter valid numbers.";

      } else {

        // Add the input values together

        var sum = input1Value + input2Value;

        // Display the result

        document.getElementById("result").innerText = "Result: " + sum;
```

```
    }  
  }  
</script>  
</body>  
</html>
```

Simple Calculator

Input 1:

Input 2:

Result: 36

4. What is the error in the following code?

```
<!DOCTYPE html>  
  
<p class="text">Hello World!</p>  
  
<html>  
  
<body>  
  
<script>  
document.getElementById("text").innerHTML = "Hi JS DOM!"; </script>  
  
</body>  
  
</html>
```

ANS:

The `<script>` tag makes an error in the code because it attempts to use `document.getElementById("text")` to get an element with the id "text," but the HTML code that is provided does not have any elements with that id.

The `<p>` tag is the sole element with the class "text"; it reads, "Hello World!"

Either add an id attribute to the `<p>` tag or modify the JavaScript code to select the element by its class name in order to remedy the problem. Here are two potential solutions:

Add an id attribute to the `<P>` tag:

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

```
<body>
<p id="text" class="text">Hello World!</p>
<script>
document.getElementById("text").innerHTML = "Hi JS DOM!";
</script>
</body>
</html>
```

Select the element by its class name:

```
<!DOCTYPE html>
<html>
<body>
<p class="text">Hello World!</p>
<script>
document.querySelector(".text").innerHTML = "Hi JS DOM!";
</script>
</body>
</html>
```

5. Using JS Dom select a button and set its onclick event to logging hello in the console.

ANS:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Button Click Logging</title>
</head>
<body>
  <button id="myButton">Click Me</button>
```

```

<script>

// Select the button element
var button = document.getElementById("myButton");

// Set onclick event to log "Hello" in the console
button.onclick = function() {
    console.log("Hello");
};
</script>
</body>
</html>

```

6. Using alert, prevent a person from leaving the screen using JS DOM.

ANS:

```

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Prevent Leaving Screen</title>
</head>
<body>
<h2>Try to leave the page...</h2>

<script>

window.addEventListener('beforeunload', function(event) {
    // Cancel the event as stated by the standard.
    event.preventDefault();

    // Chrome requires returnValue to be set.

```

```
        event.returnValue = "";
    });
</script>
</body>
</html>
```

7. Select all the h2 tags on screen and change their colour to purple.

ANS:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Change Color of All h2 Tags</title>
</head>
<body>
    <h2>First Heading</h2>
    <h2>Second Heading</h2>
    <h2>Third Heading</h2>

    <script>
        // Select all h2 tags
        var h2Elements = document.getElementsByTagName("h2");

        // Loop through each h2 element and change its color to purple
        for (var i = 0; i < h2Elements.length; i++) {
            h2Elements[i].style.color = "purple";
        }
    </script>
</body>
```

</html>

8. Create a new <h4> tag on the screen using JS DOM.

ANS:

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>Create New h4 Tag</title>
```

```
</head>
```

```
<body>
```

```
<!-- Existing content -->
```

```
<h2>Existing Content</h2>
```

```
<script>
```

```
  // Create a new h4 element
```

```
  var newH4 = document.createElement("h4");
```

```
  // Set text content for the new h4 element
```

```
  newH4.textContent = "This is a new h4 tag created using JavaScript DOM.";
```

```
  // Append the new h4 element to the body or any other desired location
```

```
  document.body.appendChild(newH4);
```

```
</script>
```

```
</body>
```

```
</html>
```

9. Remove an element from the screen using js dom.

ANS:


```

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Remove Element from Screen</title>
</head>
<body>
  <div id="container">
    <p>This is the element to be removed.</p>
  </div>

  <button onclick="removeElement()">Remove Element</button>

  <script>
    function removeElement() {
      // Get a reference to the element to be removed
      var elementToRemove = document.querySelector("#container p");

      // Remove the element from the DOM
      elementToRemove.remove(); // Or:
      elementToRemove.parentNode.removeChild(elementToRemove);
    }
  </script>
</body>
</html>

```

10. Get the number of <p> tags on the screen using JS DOM.

ANS:

```
<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Count <p> Tags using JS DOM</title>

</head>

<body>

<p>This is the first paragraph.</p>

<p>This is the second paragraph.</p>

<p>This is the third paragraph.</p>


<script>

  // Get all <p> tags

  var paragraphs = document.getElementsByTagName("p");


  // Get the number of <p> tags

  var numberOfParagraphs = paragraphs.length;


  // Log the number of <p> tags to the console

  console.log("Number of <p> tags: " + numberOfParagraphs);

</script>

</body>

</html>
```