Lab Assessment 11

# Explanation of JavaScript Concepts Used

This assessment demonstrates the use of fundamental JavaScript concepts. Below is a breakdown of the code and the concepts I have applied in the lab assessment 11:

## Alerts

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|  | The code uses the `alert` method to display messages and variable values to the user. Alerts are used here to showcase outputs or intermediate steps, such as greeting the user ("Hello world") or displaying the value of variables. |

## 2.Variables and Arithmetic Operations:

Variables are declared using `var` and `let`. Arithmetic operations like addition are performed on these variables, and the results are displayed using alerts. For example:  
- A variable `x` is declared and assigned the value 10.  
- The expression `x + 10` is evaluated and the result is displayed.

## 3. Functions and Scope

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| A function `s()` is defined and invoked in the script. It demonstrates the use of: - Local scope with the `let` keyword. The variable `y` is declared within the function and is accessible only inside it. - Basic arithmetic within the function to manipulate the value of `y` and display the result. |  |

### 4. Arrays and Loops

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|  | An array `a` is defined with a sequence of numbers. A `for` loop is used to iterate over the array, and specific elements are displayed using alerts. The loop includes: - Conditional iteration controlled by the `i` variable. - Increment adjustments within the loop body (`i += 3`), which modifies the flow of iteration. |

## Code:

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| <!DOCTYPE html>  <html lang="en">  <head>    <meta charset="UTF-8">    <meta name="viewport" content="width=device-width, initial-scale=1.0">    <title>Lab Assessment 11</title>  </head>  <body>    <script>      alert("Hello world");      var x = 10;      alert(x);      alert(x + 10);      function s() {        let y = 10;        alert( y + 20);      }      s();      let a = [1,2,3,4,5];      for (let i = 0; i < 5; i++) {        alert(a[i]);        i+=3;      }    </script>  </body>  </html> |

## Conclusion:

This assessment highlights key JavaScript concepts including alerts, variable manipulation, function definition, and array iteration. These foundational techniques are essential for understanding and building dynamic web applications.