

# Lahore Garrison University

DHA Phase 6 Lahore



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# Lab 8 Deliverable: Simple Calculator App

## 1. HTML (index.html)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Lab 8 - JavaScript Basics Calculator</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    <h1>Simple Calculator</h1>
    <div class="calculator">
      <input type="number" id="num1" placeholder="Enter first number">
      <input type="number" id="num2" placeholder="Enter second
number">
      <div class="buttons">
        <button id="addBtn">+</button>
        <button id="subtractBtn">-</button>
        <button id="multiplyBtn">×</button>
        <button id="divideBtn">÷</button>
      </div>
      <p id="result">Result: <span>0</span></p>
    </div>
    <script src="script.js"></script>
  </body>
</html>
```

## 2. CSS (style.css)

```
body {
  font-family: Arial, sans-serif;
  background-color: #f0f4f8;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
}
```

```

.container {
  background: white;
  padding: 30px;
  border-radius: 10px;
  box-shadow: 0 4px 10px rgba(0,0,0,0.1);
  text-align: center;
  width: 300px;
}
input {
  width: 80%;
  padding: 10px;
  margin: 10px 0;
  font-size: 1em;
}
.buttons button {
  padding: 10px 15px;
  margin: 5px;
  font-size: 1.2em;
  cursor: pointer;
}
#result {
  margin-top: 15px;
  font-size: 1.1em;
  font-weight: bold;
}

```

### 3. JavaScript (script.js)

```

const num1 = document.getElementById('num1');
const num2 = document.getElementById('num2');
const result = document.querySelector('#result span');
function add(a, b) {
  return a + b;
}
function subtract(a, b) {
  return a - b;
}
function multiply(a, b) {
  return a * b;
}
function divide(a, b) {
  if (b === 0) {

```

```

    alert('Cannot divide by zero!');
    console.error('Attempted to divide by zero.');
```

```

    return 'Error';
  }
  return a / b;
}
document.getElementById('addBtn').addEventListener('click', () =>
  calculate('add'));
document.getElementById('subtractBtn').addEventListener('click', () =>
  calculate('subtract'));
document.getElementById('multiplyBtn').addEventListener('click', () =>
  calculate('multiply'));
document.getElementById('divideBtn').addEventListener('click', () =>
  calculate('divide'));
function calculate(operation) {
  const a = parseFloat(num1.value);
  const b = parseFloat(num2.value);
  if (isNaN(a) || isNaN(b)) {
    alert('Please enter valid numbers!');
    console.warn('Invalid input detected.');
```

```

    return;
  }
  let output;
  switch (operation) {
    case 'add':
      output = add(a, b);
      break;
    case 'subtract':
      output = subtract(a, b);
      break;
    case 'multiply':
      output = multiply(a, b);
      break;
    case 'divide':
      output = divide(a, b);
      break;
    default:
      console.error('Unknown operation');
      return;}
  result.textContent = output;
  console.log(`Operation: ${operation}, Result: ${output}`);
}

```

**Output:**

# Simple Calculator

5

10

+

-

×

÷

Clear

Result: **15**

Last:  $5 + 10 = 15$