

1. Functions and Prototyping.

Source code:

```
<!DOCTYPE html>
<html>
<head>
  <style>
    /* CSS styles */
    .result {
      font-weight: bold;
    }
  </style>
</head>
<body>
  <h1>Function Example</h1>

  <label for="num1">Number 1:</label>
  <input type="number" id="num1" />
  <br />
  <label for="num2">Number 2:</label>
  <input type="number" id="num2" />
  <br />

  <button onclick="calculateSum()">Calculate Sum</button>
  <button onclick="calculateProduct()">Calculate Product</button>

  <p>Sum: <span id="sumResult" class="result"></span></p>
  <p>Product: <span id="productResult" class="result"></span></p>

  <script>
    // JavaScript functions
    function calculateSum() {
      var num1 = parseInt(document.getElementById("num1").value);
      var num2 = parseInt(document.getElementById("num2").value);
      var sum = num1 + num2;
      document.getElementById("sumResult").textContent = sum;
    }

    function calculateProduct() {
      var num1 = parseInt(document.getElementById("num1").value);
      var num2 = parseInt(document.getElementById("num2").value);
      var product = num1 * num2;
      document.getElementById("productResult").textContent = product;
    }
  </script>
```

```
</body>
</html>
```

2. Working with Functions.

Source code:

```
<!DOCTYPE html>
<html>
<head>
  <style>
    /* CSS styles */
    .result {
      font-weight: bold;
    }
  </style>
</head>
<body>
  <h1>Working with Functions</h1>

  <button onclick="greet()">Click to Greet</button>
  <button onclick="calculate()">Click to Calculate</button>

  <p id="greetingResult" class="result"></p>
  <p id="calculationResult" class="result"></p>

  <script>
    // JavaScript functions
    function greet() {
      var name = prompt("Enter your name:");
      var greeting = "Hello, " + name + "!";
      document.getElementById("greetingResult").textContent = greeting;
    }

    function calculate() {
      var num1 = parseInt(prompt("Enter the first number:"));
      var num2 = parseInt(prompt("Enter the second number:"));
      var sum = num1 + num2;
      var product = num1 * num2;
      var result = "Sum: " + sum + ", Product: " + product;
      document.getElementById("calculationResult").textContent = result;
    }
  </script>
</body>
```

```
</html>
```

3. IIFEs, Callbacks, and Closures.

Source code:

```
<!DOCTYPE html>
<html>
<head>
  <style>
    /* CSS styles */
    .result {
      font-weight: bold;
    }
  </style>
</head>
<body>
  <h1>IIFEs, Callbacks, and Closures</h1>

  <button onclick="iifeExample()">IIFE Example</button>
  <button onclick="callbackExample()">Callback Example</button>
  <button onclick="closureExample()">Closure Example</button>

  <p id="iifeResult" class="result"></p>
  <p id="callbackResult" class="result"></p>
  <p id="closureResult" class="result"></p>

  <script>
    // IIFE Example
    function iifeExample() {
      var result = (function () {
        var message = "IIFE Example";
        return message;
      })();
      document.getElementById("iifeResult").textContent = result;
    }

    // Callback Example
    function longRunningOperation(callback) {
      setTimeout(function () {
        var result = "Callback Example";
        callback(result);
      }, 2000);
    }
  </script>
</body>
</html>
```

```

function callbackExample() {
  longRunningOperation(function (result) {
    document.getElementById("callbackResult").textContent = result;
  });
}

// Closure Example
function closureExample() {
  function outerFunction() {
    var outerVariable = "Closure Example";

    function innerFunction() {
      return outerVariable;
    }

    return innerFunction;
  }

  var closureFunction = outerFunction();
  var result = closureFunction();
  document.getElementById("closureResult").textContent = result;
}
</script>
</body>
</html>

```

4. Maps and Classes.

Source code:

```

<!DOCTYPE html>
<html>
<head>
  <style>
    /* CSS styles */
    .result {
      font-weight: bold;
    }
  </style>
</head>
<body>
  <h1>Maps and Classes Example</h1>

```

```

<button onclick="mapExample()">Map Example</button>
<button onclick="classExample()">Class Example</button>

<p id="mapResult" class="result"></p>
<p id="classResult" class="result"></p>

<script>
    // JavaScript Map Example
    function mapExample() {
        var fruits = new Map();

        // Add items to the map
        fruits.set("apple", 5);
        fruits.set("banana", 3);
        fruits.set("orange", 7);

        // Access items in the map
        var appleCount = fruits.get("apple");
        var bananaCount = fruits.get("banana");
        var orangeCount = fruits.get("orange");

        // Display the results
        var result = "Apple count: " + appleCount + ", Banana count: " +
bananaCount + ", Orange count: " + orangeCount;
        document.getElementById("mapResult").textContent = result;
    }

    // JavaScript Class Example
    class Person {
        constructor(name, age) {
            this.name = name;
            this.age = age;
        }

        introduce() {
            return "My name is " + this.name + " and I'm " + this.age + " years
old.";
        }
    }

    function classExample() {
        var person = new Person("prasad", 23);
        var introduction = person.introduce();
        document.getElementById("classResult").textContent = introduction;
    }

```

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