1. Write a code to find out whether the year is leap year or not in javascript

```html
<!DOCTYPE html>
<head>
  <script>
    function checkLeapYear() {

        var userInput = parseInt(document.getElementById("yearInput").value);

        function isLeapYear(year) {
          return (year % 4 === 0 && year % 100 !== 0) || (year % 400 === 0);
        }

        if (isLeapYear(userInput)) {
          alert(userInput + " is a leap year.");
        } else {
          alert(userInput+ " is not a leap year.");
        }
      }
  </script>
</head>
<body>
  <h1>Leap Year Checker</h1>
  <input type="text" id="yearInput" placeholder="Enter year">
  <button onclick="checkLeapYear()">Check Leap Year</button>
</body>
</html>
```

2. Fibonacci Series:

```html
<!DOCTYPE html>
  <script>
    function generateFibonacci() {
      var userInput = parseInt(document.getElementById("numberInput").value);
      function fibonacci(n) {
        if (n == 0) {
          return 0;
        } else if (n == 1) {
          return 1;
        } else {
          return fibonacci(n - 1) + fibonacci(n - 2);
        }
      }
```

```
      var fibonacciSeries = [];
      for (var i = 0; i < userInput; i++) {
         fibonacciSeries.push(fibonacci(i));
      }
      alert("Fibonacci Series for " + userInput + " numbers: " +
fibonacciSeries.join(", "));
    }
  </script>
<body>
  <h1>Fibonacci Series Generator</h1>
  <input type="text" id="numberInput" placeholder="Enter a number">
  <button onclick="generateFibonacci()">Generate</button>
</body>
</html>
```

3. Changing attributes dynamically

```
<!DOCTYPE html>
  <script>
    function changeImageSource() {
       // Get the image element by its ID
       var imageElement = document.getElementById("myImage");
       // New source URL
       var newSource = "new_image.jpg";
       // Change the src attribute dynamically
       imageElement.setAttribute("src", newSource);
    }
  </script>
<body>
  <h1>Dynamic Attribute Change</h1>
  <img id="myImage" src="old_image.jpg" alt="Old Image">
  <br>
  <button onclick="changeImageSource()">Change Image Source</button>
</body>
</html>
```

4. Slide show:

```
<html>
<title>slideshow</title>
<body>
<h2 class="w3-center">Manual Slideshow</h2>
```

```html
<div class="w3">
    <img class="mySlides" src="y.jpg" style="width:50%">
    <img class="mySlides" src="yy.jpg" style="width:50%">
    <img class="mySlides" src="yyy.jpg" style="width:50%">
    <img class="mySlides" src="yyyy.jpg" style="width:50%">
    <button class="aa" onclick="plusDivs(-1)">&#10094;Back</button>
    <button class="bb" onclick="plusDivs(1)">&#10095;Forward</button>
  </div>
  <script>
  var slideIndex = 1;
  showDivs(slideIndex);
  function plusDivs(n)
  {
   showDivs(slideIndex += n);
  }
  function showDivs(n)
  {
   var i;
   var x = document.getElementsByClassName("mySlides");
   if (n > x.length)
   {
  slideIndex = 1
   }
   if (n < 1)
   {
  slideIndex = x.length
   }
   for (i = 0; i < x.length; i++)
   {
   x[i].style.display = "none";
   }
   x[slideIndex-1].style.display = "block";
  }
</script>
</body>
</html>
```

5. Onchange:

```html
<html>
<body>
Enter some text:
<input type="text" name="txt" value="Hello" onchange="myFunction(this.value)">
<script>
function myFunction(val)
```

```
{
alert("The input value has changed. The new value is: " + val);
}
</script>
</body>
</html>
```

6. **Resizeto and resizeby:**

```
<!DOCTYPE html>
  <title>Window Resize Demo</title>
  <style>
    body {
      font-family: Arial, sans-serif;
    }

    button {
      margin: 10px;
      padding: 5px 10px;
      font-size: 14px;
    }
  </style>
</head>
<body>
  <h2>Window Resize Demo</h2>
  <p>Click the buttons to resize the window:</p>

  <button onclick="resizeByExample()">Resize by 100 pixels</button>
  <button onclick="resizeToExample()">Resize to 400x300 pixels</button>

  <script>
    function resizeByExample() {
      // Resize the window by 100 pixels in both width and height
      window.resizeBy(100, 100);
    }

    function resizeToExample() {
      // Resize the window to 400x300 pixels
      window.resizeTo(400, 300);
    }
  </script>
</body>
</html>
```

7. Scrollto and scrollBy:

```html
<html>
<body>
  <button onclick="scrollWinTo()" style="position:fixed">Scroll To</button>
  <br><br>
  <button onclick="scrollWinBy()" style="position:fixed">Scroll By</button>
  <br>
<p>
Long Text
</p>
<script>
function scrollWinTo() { window.scrollTo(50, 50);
}
function scrollWinBy() { window.scrollBy(100, 100);
}
</script>
</body>
</html>
```

8. Checkbox:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Checkbox Selection</title>
    <script>
        function checkCheckboxes() {
            var checkboxes = document.getElementsByName('checkbox');
            var checkboxChecked = false;
            for (var i = 0; i < checkboxes.length; i++) {
                if (checkboxes[i].checked) {
                    checkboxChecked = true;
                    break;
                }
            }

            if (checkboxChecked) {
                alert('At least one checkbox is selected.');
            } else {
                alert('No checkbox is selected.');
            }
        }
    </script>
</head>
```

```html
<body>
    <input type="checkbox" name="checkbox" value="Option 1">Option 1<br>
    <input type="checkbox" name="checkbox" value="Option 2">Option 2<br>
    <input type="checkbox" name="checkbox" value="Option 3">Option 3<br>
    <button onclick="checkCheckboxes()">Check</button>
</body>
</html>
```