Pool 1

-ART BY NAVEEN

1.Create a static website using HTML tables.

```
<html>

<head>
    <style>
        table,
        th,
        td {
            border: 1px solid black;
        }
    </style>
</head>

<body>
    <table style="width:100%">
        <tr>
            <th>Firstname</th>
            <th>Lastname</th>
            <th>Age</th>
        </tr>
        <tr>
            <td>Priya</td>
            <td>Sharma</td>
            <td>24</td>
        </tr>
        <tr>
            <td>Arun</td>
            <td>Singh</td>
            <td>32</td>
        </tr>
        <tr>
            <td>Sam</td>
            <td>Watson</td>
            <td>41</td>
```

```
        </tr>
    </table>
</body>

</html>
```

2.Write a HTML program to demonstrate different types of Lists.

```
<html>

<body>

    <h2>Unordered List (ul)</h2>
    <ul>
        <li>Item 1</li>
        <li>Item 2</li>
        <li>Item 3</li>
        <li>Item 4</li>
    </ul>

    <h2>Ordered List (ol)</h2>
    <ol>
        <li>First Item</li>
        <li>Second Item</li>
        <li>Third Item</li>
        <li>Fourth Item</li>
    </ol>
</body>

</html>
```

3.Create Registration form using HTML forms

```
<html>

<body>
```

```
    <h2>User Registration Form</h2>

    <form action="#" method="post">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br>

        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required><br>

        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required><br>

        <label for="gender">Gender:</label>
        <select id="gender" name="gender" required>
            <option value="male">Male</option>
            <option value="female">Female</option>
            <option value="other">Other</option>
        </select>

        <button type="submit">Register</button>
    </form>

</body>

</html>
```

4.Demonstrate different types of CSS with an example.

```
<html>

<head>
    <link rel="stylesheet" href="styles.css">
    <style>
        h2 {
            color: green;
        }
    </style>
```

```
</head>

<body>

    <h1 style="color: blue;">This is a Heading with Inline Styles</h1>
    <h2>This is a Heading with Internal Styles</h2>
    <h3>This is a paragraph with external styles.</h3>

</body>

</html>
```

```
h3 {
  color: brown;
}
```

5.Write a HTML Program to Create a Bio-Data form.

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

<body>

    <h2>Bio-Data Form</h2>

    <form action="#" method="post">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br>

        <label for="age">Age:</label>
        <input type="number" id="age" name="age" required><br>

        <label for="gender">Gender:</label>
        <select id="gender" name="gender" required>
            <option value="male">Male</option>
            <option value="female">Female</option>
            <option value="other">Other</option>
        </select><br>
```

```
        <label for="address">Address:</label>
        <textarea id="address" name="address" rows="2"
required></textarea><br>

        <label for="bio">Brief Bio:</label>
        <textarea id="bio" name="bio" rows="2" required></textarea><br>

        <button type="submit">Submit</button>
    </form>

</body>

</html>
```

6.Write the CSS rules for a simple static website.

a) Rule for a background image is left top of the page, tiling horizontally. The image should remain in place when the user scrolls up or down.

```
<!DOCTYPE html>

<head>
    <style>
        body {
            background-image:
url('https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcRXL6YrRuHXonTPo
VGjjV855XJ2ofOuq2UFscSEJkAGM_nkHzng4PBTYb-wow&s');
            background-position: left top;
            background-repeat: no-repeat;
            background-attachment: fixed;
        }
    </style>
</head>

<body>
```

```
</body>

</html>
```

b) All paragraphs text 1.5 times larger than the base font of the system and colors it red (inline, embedded and external style sheet).

```
<html>

<head>
    <link rel="stylesheet" href="styles.css">
    <style>
        p {
            font-size: 1.5em;
            color: red;
        }
    </style>

</head>

<body>
    <p style="font-size: 1.5em; color: red;">This is a paragraph with
inline style.</p>
    <p>This is a paragraph with embedded style.</p>
    <p>This is a paragraph from external.</p>
</body>

</html>
```

c) Rule for all H1 & H2 elements a padding of 0.5em, a grooved border style and a margin of 0.5em. (Box Model)

```
<!DOCTYPE html>
```

```
<head>
    <style>
        h1,
        h2 {
            padding: 0.5em;
            border-style: groove;
            margin: 0.5em;
        }
    </style>
</head>

<body>
    <h1>Hi i am h1</h1>
    <h2>Hi i am h2</h2>
</body>

</html>
```

```
p {
  font-size: 1.5em;
  color: red;
}
```

7.Write a HTML program to demonstrate iFrames.

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

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>iFrame Example</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 20px;
        }
```

```
    </style>
</head>

<body>
    <h2>iFrame Example</h2>

    <!-- Inline iFrame -->
    <h3>Inline iFrame</h3>
    <iframe src="welcome.html" width="600" height="300"></iframe>

    <!-- External Content iFrame -->
    <h3>External Content iFrame</h3>
    <iframe src="greetings.html" width="600" height="300"></iframe>

</body>

</html>
```

```
<h1>Hello</h1>
```

```
<h1>welcome</h1>
```

8.Write a java script to perform addition of matrices

```
<html>

<body>

    <h2>Matrix Addition</h2>

    <script>
        function addMatrices(matrixA, matrixB) {
            var result = [];

            for (var i = 0; i < matrixA.length; i++) {
                result[i] = [];
                for (var j = 0; j < matrixA[i].length; j++) {
                    result[i][j] = matrixA[i][j] + matrixB[i][j];
```

```
                }
            }

            return result;
        }

        var matrixA = [
            [1, 2, 3],
            [4, 5, 6],
            [7, 8, 9]
        ];

        var matrixB = [
            [9, 8, 7],
            [6, 5, 4],
            [3, 2, 1]
        ];

        var resultMatrix = addMatrices(matrixA, matrixB);

        document.write("Matrix A:");
        document.write(matrixA);

        document.write("<br>Matrix B:");
        document.write(matrixB);

        document.write("<br>Result Matrix:");
        document.write(resultMatrix);
    </script>

</body>

</html>
```

9.Write a java script to demonstrate functions.

```
<html>
```

```
<body>

    <h2>Simple Calculator</h2>

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

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

    <button onclick="add()">add</button>

    <p id="result">Result will be displayed here.</p>

    <script>
        // Function to perform calculations based on user input

        function add() {
            var num1 = parseInt(document.getElementById('num1').value);
            var num2 = parseInt(document.getElementById('num2').value);
            var resultElement = document.getElementById('result');
            var result = num1 + num2;
            resultElement.textContent = 'Result: ' + result;
        }

    </script>

</body>

</html>
```

10.Write a java script to demonstrate DOM.

```
<html>

<body>
```

```
    <h2>Simple Calculator</h2>

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

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

    <button onclick="add()">add</button>

    <p id="result">Result will be displayed here.</p>

    <script>
        // Function to perform calculations based on user input

        function add() {
            var num1 = parseInt(document.getElementById('num1').value);
            var num2 = parseInt(document.getElementById('num2').value);
            var resultElement = document.getElementById('result');
            var result = num1 + num2;
            resultElement.textContent = 'Result: ' + result;
        }

    </script>

</body>

</html>
```

11.Write a java script to demonstrate DOM collections.

```
<html>

<body>
```

```
    <h2>JavaScript HTML DOM</h2>

    <p>Hello World!</p>

    <p>Hello Norway!</p>

    <p>Click the button to change the color of all p elements.</p>

    <button onclick="myFunction()">Try it</button>

    <script>
        function myFunction() {
            const myCollection = document.getElementsByTagName("p");
            for (let i = 0; i < myCollection.length; i++) {
                myCollection[i].style.color = "red";
            }
        }
    </script>

</body>

</html>
```

12.Develop a student registration from with Validation support using pattern attribute in java script.

```
<html>
<html>
<fieldset>
    <legend>REGISTRATION-FORM:</legend>

    <body>
        <form name="biodataForm" method="post">
            <label for="name">Name:</label>
            <input type="text" id="name" name="name"
pattern="^[A-Za-z\s]{2,30}$" required
                title="Enter a valid name (2-30 characters)"><br>
            <label for="email">Email:</label>
```

```
            <input id="email" name="email"
pattern="^[A-Za-z0-9\s]{2,30}[@][A-Za-z\s]{2,30}[.][A-Za-z\s]{2,30}$"
                required title="Enter a valid email address"><br>
            <label>Dob:</label>
            <input type="date" required><br>
            <label for="phone">Phone Number:</label>
            <input type="tel" id="phone" name="phone"
pattern="^[0-9]\d{9}$" required
                title="Enter a valid 10-digit phone"> <br>
            <label>Address</label>
            <textarea rows="4"></textarea><br>
            <label for="gender">Gender:</label><br>
            male<input type="radio" name="gender">
            female<input type="radio" name="gender"><br><br>
            <input type="submit" value="Submit">
            <input type="submit" value="Reset">
        </form>
    </body>

</html>
```

13.Develop a student registration from with Validation support using JavaScript event handling in java script.

```
<html>
</head>

<body>

    <h2>Student Registration Form</h2>

    <form id="registrationForm">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required>
        <span class="error" id="nameError"></span>

        <label for="email">Email:</label>
```

```
        <input type="email" id="email" name="email" required>
        <span class="error" id="emailError"></span>

        <label for="age">Age:</label>
        <input type="text" id="age" name="age" required>
        <span class="error" id="ageError"></span>

        <button id="btn">Submit</button>
    </form>

    <script>
        // Function to validate the form
        var x = document.getElementById("btn");
        x.addEventListener("click", validateForm);
        function validateForm() {
            var isValid = true;

            // Name validation
            var nameInput = document.getElementById('name');
            var nameError = document.getElementById('nameError');
            if (nameInput.value.trim() === '') {
                nameError.textContent = 'Name is required.';
                isValid = false;
            } else {
                nameError.textContent = '';
            }

            // Email validation
            var emailInput = document.getElementById('email');
            var emailError = document.getElementById('emailError');
            if (emailInput.value.trim() === '') {
                emailError.textContent = 'Email is required.';
                isValid = false;
            } else {
                emailError.textContent = '';
            }

            // Age validation
            var ageInput = document.getElementById('age');
            var ageError = document.getElementById('ageError');
```

```
            if (ageInput.value.trim() === '') {
                ageError.textContent = 'Age is required.';
                isValid = false;
            } else {
                ageError.textContent = '';
            }

            if (isValid) {
                // Submit the form or perform further actions
                alert('Form submitted successfully!');
            }
        }
    </script>

</body>

</html>
```

14.Write a program to demonstrate Mouse Events and Key Events.

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

<body>

    <h2>Mouse and Key Events Demo</h2>

    <div id="eventArea" onmouseover="logEvent('Mouse Over')"
onmouseout="logEvent('Mouse Out')"
        onclick="logEvent('Mouse Clicked')" ondblclick="logEvent('Double
Clicked')" tabindex="0"
        onkeydown="logEvent('Key Down: ' + event.key)"
onkeyup="logEvent('Key Up: ' + event.key)"
        onkeypress="logEvent('Key Pressed: ' + event.key)">
        Hover over, click, or double click in this area. Press a key to
observe key events.
    </div>
```

```
    <div id="eventLog">
        <h3>Event Log</h3>
    </div>

    <script>
        // Function to log events
        function logEvent(eventMessage) {
            var eventLog = document.getElementById('eventLog');
            var eventItem = document.createElement('p');
            eventItem.textContent = eventMessage;
            eventLog.appendChild(eventItem);
        }
    </script>

</body>

</html>
```

15.Write a java script to demonstrate creation and modification of objects.

```
<html>

<body>

    <script>
        function createPerson(name, age, gender) {
            return {
                name: name,
                age: age,
                gender: gender
            };
        }

        function displayPersonInfo(person) {
            document.write("<br>Name: " + person.name);
            document.write("<br>Age: " + person.age);
```

```
            document.write("<br>Gender: " + person.gender);
        }

        var person1 = createPerson("John Doe", 25, "Male");

        document.write("Initial Information:");
        displayPersonInfo(person1);

        person1.age = 26;
        person1.gender = "Other";
        document.write("<br><br><br>\nModified Information:");
        displayPersonInfo(person1);
    </script>

</body>

</html>
```

16.Write a java script to demonstrate String handling methods.

```
<html>

<body>
    <script>
        var originalString = "Hello, World!";
        document.write("Original String: " + originalString);
        var uppercaseString = originalString.toUpperCase();
        document.write("<br>Uppercase: " + uppercaseString);

        var lowercaseString = originalString.toLowerCase();
        document.write("<br>Lowercase: " + lowercaseString);

        var stringLength = originalString.length;
        document.write("<br>Length: " + stringLength);

        var substring = originalString.substring(0, 5);
        document.write("<br>Substring (0 to 5): " + substring);
```

```
        var indexOfComma = originalString.indexOf(",");
        document.write("<br>Index of ',': " + indexOfComma);

        var replacedString = originalString.replace("World", "Universe");
        document.write("<br>Replaced String: " + replacedString);

        var splitArray = originalString.split(",");
        document.write("<br>Split Array: " + JSON.stringify(splitArray));

        var stringWithWhitespace = "   Trim me   ";
        var trimmedString = stringWithWhitespace.trim();
        document.write("<br>Original String with Whitespace: '" +
stringWithWhitespace + "'");
        document.write("<br>Trimmed String: '" + trimmedString + "'");
    </script>

</body>

</html>
```

17.Write a java script to demonstrate Math Object.

```
<html>

<body>

    <script>

        var radians = Math.PI / 180; // Convert degrees to radians

        document.write("<br>Math.sqrt(16) = " + Math.sqrt(16)); // Square
root
        document.write("<br>Math.pow(2, 3) = " + Math.pow(2, 3)); //
Exponential
        document.write("<br>Math.abs(-5) = " + Math.abs(-5)); // Absolute
value
```

```
        document.write("<br>Math.ceil(4.3) = " + Math.ceil(4.3)); //
Ceiling
        document.write("<br>Math.floor(4.7) = " + Math.floor(4.7)); //
Floor
        document.write("<br>Math.round(4.5) = " + Math.round(4.5)); //
Round
        document.write("<br>Math.sin(30 degrees) = " + Math.sin(30 *
radians)); // Sine
        document.write("<br>Math.cos(60 degrees) = " + Math.cos(60 *
radians)); // Cosine
        document.write("<br>Math.tan(45 degrees) = " + Math.tan(45 *
radians)); // Tangent
        document.write("<br>Math.random() = " + Math.random()); // Random
number between 0 and 1

        // Math Constants
        document.write("<br>Math.PI = " + Math.PI); // π
        document.write("<br>Math.E = " + Math.E); // Euler's number
    </script>

</body>

</html>
```

18.Write a java script to demonstrate Pop-up boxes.

```
<html>

<body>

    <h2>popup</h2>

    <button onclick="myFunction()">Try it</button>
    <button onclick="myFunction1()">Try it-1</button>
    <button onclick="myFunction2()">Try it</button>
    <p id="demo"></p>
    <script>
        function myFunction() {
```

```
            alert("I am an alert box!");
        }
        function myFunction1() {
            var txt;
            if (confirm("Press a button!")) {
                txt = "You pressed OK!";
            } else {
                txt = "You pressed Cancel!";
            }
            document.getElementById("demo").innerHTML = txt;
        }
        function myFunction2() {
            let text;
            let person = prompt("Please enter your name:", "Harry
Potter");
            if (person == null || person == "") {
                text = "User cancelled the prompt.";
            } else {
                text = "Hello " + person + "! How are you today?";
            }
            document.getElementById("demo").innerHTML = text;
        }
    </script>

</body>

</html>
```

19.Write a java script to demonstrate Date Object.

```
<html>

<body>
    <script>
        var date = new Date();
        var day = date.getDate();
        var month = date.getMonth() + 1;
        var year = date.getFullYear();
```

```
        document.write("<br>Date is: " + day + "/" + month + "/" + year);
    </script>
</body>

</html>
```

20. Write a java script to demonstrate Arrays.

```
<html>

<body>
    <h1>JavaScript Arrays</h1>

    <p id="demo"></p>

    <script>
        const cars = [
            "Saab",
            "Volvo",
            "BMW"
        ];
        document.getElementById("demo").innerHTML = cars;
    </script>

</body>

</html>
```