ASSIGNMENT NO.1

1. Design a student HTML form validate using JavaScript

StudentForm.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <title>Student Registration Form</title>
   <link rel="stylesheet" href="style.css">
</head>
<body>
   <div class="form-container">
      <h2>Student Registration Form</h2>
      <form id="registrationForm" novalidate>
         <div class="form-group">
            <label for="name">Full Name:</label>
            <input type="text" id="name" name="name" required>
            <small class="error-message" id="nameError"></small>
         </div>

         <div class="form-group">
            <label for="email">Email Address:</label>
            <input type="text" id="email" name="email" required>
            <small class="error-message" id="emailError"></small>
         </div>

         <div class="form-group">
            <label for="phone">Phone Number:</label>
            <input type="text" id="phone" name="phone" required>
            <small class="error-message" id="phoneError"></small>
         </div>

         <div class="form-group">
            <label for="dob">Date of Birth:</label>
            <input type="date" id="dob" name="dob" required min="2000-01-01">

            <!-- <input type="date" id="dob" name="dob" required> -->
            <small class="error-message" id="dobError"></small>
         </div>

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

   <script src="script.js"></script>
</body>
</html>
```

Style.css

```css
body {
    font-family: Arial, sans-serif;
    background: #f0f2f5;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
}

.form-container {
    background-color: white;
    padding: 30px;
    border-radius: 8px;
    box-shadow: 0px 0px 12px rgba(0, 0, 0, 0.1);
    width: 350px;
}

h2 {
    text-align: center;
    margin-bottom: 20px;
}

.form-group {
    margin-bottom: 15px;
    display: flex;
    flex-direction: column;
}

label {
    margin-bottom: 5px;
    font-weight: bold;
}

input[type="text"],
input[type="date"] {
    padding: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
}

button {
    width: 100%;
    padding: 10px;
    background-color: #007bff;
    color: white;
    font-size: 16px;
    border: none;
```

```css
    border-radius: 5px;
    cursor: pointer;
}

button:hover {
    background-color: #0056b3;
}

.error-message {
    color: red;
    font-size: 12px;
    display: none;
}
```

```javascript
// Set max DOB to today - 18 years
window.onload = function () {
    const dobInput = document.getElementById("dob");

    const today = new Date();
    const year = today.getFullYear() - 18;
    const month = String(today.getMonth() + 1).padStart(2, '0');
    const day = String(today.getDate()).padStart(2, '0');

    const maxDate = `${year}-${month}-${day}`;
    dobInput.max = maxDate;
};

document.getElementById("registrationForm").addEventListener("submit", function(event) {
    event.preventDefault(); // Prevent form submission

    // Clear previous errors
    clearErrors();

    // Get field values
    const name = document.getElementById("name").value.trim();
    const email = document.getElementById("email").value.trim();
    const phone = document.getElementById("phone").value.trim();
    const dob = document.getElementById("dob").value;

    let isValid = true;

    // 1. Required Fields
    if (name === "") {
        showError("nameError", "Name is required.");
        isValid = false;
    }
```

```
if (email === "") {
    showError("emailError", "Email is required.");
    isValid = false;
}

if (phone === "") {
    showError("phoneError", "Phone number is required.");
    isValid = false;
}

if (dob === "") {
    showError("dobError", "Date of birth is required.");
    isValid = false;
}

// 2. Email Format
const emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
if (email && !emailPattern.test(email)) {
    showError("emailError", "Enter a valid email address.");
    isValid = false;
}

// 3. Phone Number Validation
const phonePattern = /^\d{10}$/;
if (phone && !phonePattern.test(phone)) {
    showError("phoneError", "Phone number must be exactly 10 digits.");
    isValid = false;
}

// 4. Age Check (18+)
if (dob) {
    const today = new Date();
    const birthDate = new Date(dob);
    let age = today.getFullYear() - birthDate.getFullYear();
    const monthDiff = today.getMonth() - birthDate.getMonth();

    if (monthDiff < 0 || (monthDiff === 0 && today.getDate() < birthDate.getDate())) {
        age--;
    }

    if (age < 18) {
        showError("dobError", "You must be at least 18 years old.");
        isValid = false;
    }

    // Ensure DOB is not before year 2000
    const minDOB = new Date("2000-01-01");
    if (birthDate < minDOB) {
```

```
            showError("dobError", "Date of birth cannot be before the year 2000.");
            isValid = false;
        }
    }

    if (isValid) {
        alert("Form submitted successfully!");
        document.getElementById("registrationForm").reset();
    }
});

function showError(id, message) {
    const element = document.getElementById(id);
    element.textContent = message;
    element.style.display = "block";
}

function clearErrors() {
    const errorMessages = document.querySelectorAll(".error-message");
    errorMessages.forEach(msg => {
        msg.textContent = "";
        msg.style.display = "none";
    });
}
```
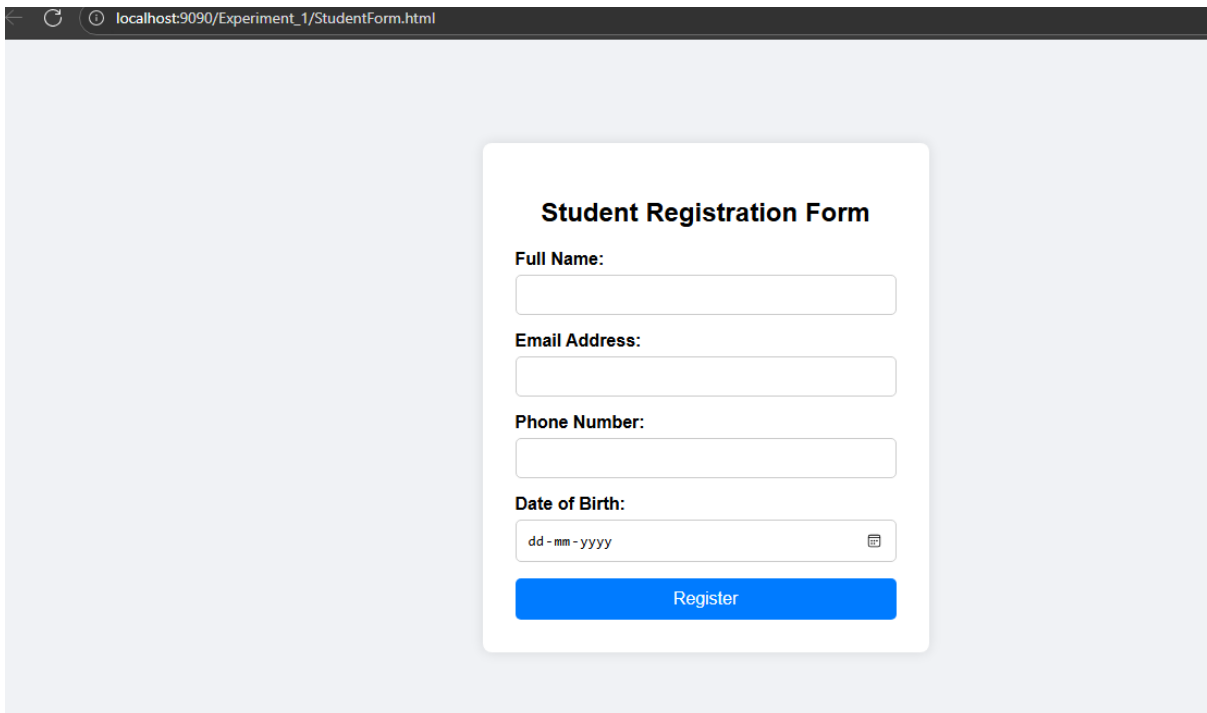
localhost:9090/Experiment_1/StudentForm.html

Student Registration Form

Full Name:

Email Address:

Phone Number:

Date of Birth:

dd - mm - yyyy

Register

Student Registration Form

Full Name:

rutuja

Email Address:

abc@gmail.com

Phone Number:

Phone number is required.

Date of Birth:

16 - 02 - 2004

Register

localhost:9090 says

Form submitted successfully!

OK

Student Registration Form

Full Name:

rutuja

Email Address: