**Lab-1**

**HTML File**  
<!DOCTYPE html>  
<html>  
<head>  
 <title>My Portfolio</title>  
 <link rel="stylesheet" href="style.css">  
</head>  
<body>  
 <header><h1>Welcome to My Portfolio</h1></header>  
 <nav>  
 <ul>  
 <li><a href="#">Home</a></li>  
 <li><a href="#">About</a></li>  
 <li><a href="#">Projects</a></li>  
 <li><a href="#">Contact</a></li>  
 </ul>  
 </nav>  
 <section>  
 <h2>About Me</h2>  
 <p>This is a static web page designed using HTML and CSS. It contains information about me and links to various sections of the website.</p>  
 </section>  
 <footer>  
 <p>Copyright © 2025</p>  
 </footer>  
</body>  
</html>

**CSS File**  
body {  
 font-family: Arial, sans-serif;  
 background-color: #f2f2f2;  
 padding: 20px;  
 margin: 0;  
}  
header {  
 background-color: #004080;  
 color: white;  
 padding: 10px;  
 text-align: center;  
}  
nav ul {  
 list-style-type: none;  
 padding: 0;  
 display: flex;  
 justify-content: center;  
 background-color: #333;  
}  
nav ul li {  
 margin: 0 15px;  
}  
nav ul li a {  
 color: white;  
 text-decoration: none;  
 padding: 10px;  
 display: block;  
}  
nav ul li a:hover {  
 background-color: #555;  
}  
section {  
 margin-top: 20px;  
}  
footer {  
 background-color: #004080;  
 color: white;  
 text-align: center;  
 padding: 10px;  
 position: fixed;  
 width: 100%;  
 bottom: 0;  
}

**Lab-2**

<!DOCTYPE html>  
<html>  
<head>  
 <title>Dynamic Web Page</title>  
 <style>  
 body {  
 font-family: Arial, sans-serif;  
 padding: 20px;  
 }  
 h1 {  
 color: darkgreen;  
 }  
 #time {  
 font-weight: bold;  
 font-size: 20px;  
 color: darkred;  
 }  
 </style>  
</head>  
<body>  
 <h1>Welcome to My Dynamic Web Page</h1>  
 <p>Current Time: <span id="time">Loading...</span></p>  
 <button onclick="updateTime()">Update Time</button>  
  
 <script>  
 function updateTime() {  
 const now = new Date();  
 const formatted = now.toLocaleTimeString();  
 document.getElementById("time").textContent = formatted;  
 }  
  
 // Auto-update every second  
 setInterval(updateTime, 1000);  
 </script>  
</body>  
</html>

**Lab-3**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

<title>XML Data Submission Example</title>

<script>

function validateAndSend() {

const name = document.getElementById('name').value.trim();

const email = document.getElementById('email').value.trim();

const errorDiv = document.getElementById('error');

const responseDiv = document.getElementById('response');

errorDiv.textContent = '';

responseDiv.textContent = '';

if (!name) {

errorDiv.textContent = 'Name is required.';

return false;

}

if (!email || !email.includes('@')) {

errorDiv.textContent = 'Valid email is required.';

return false;

}

// Create XML data

const xmlData = `<user><name>${name}</name><email>${email}</email></user>`;

// Send XML to server using AJAX (XHR)

const xhr = new XMLHttpRequest();

xhr.open('POST', 'process.php', true);

xhr.setRequestHeader('Content-Type', 'text/xml');

xhr.onreadystatechange = function () {

if (xhr.readyState === 4) {

if (xhr.status === 200) {

responseDiv.textContent = xhr.responseText;

} else {

responseDiv.textContent = 'Error communicating with server.';

}

}

};

xhr.send(xmlData);

}

</script>

</head>

<body>

<h1>Submit Your Details</h1>

<div id="error" style="color:red;"></div>

<form onsubmit="event.preventDefault(); validateAndSend();">

<label>Name: <input type="text" id="name" /></label><br /><br />

<label>Email: <input type="text" id="email" /></label><br /><br />

<button type="submit">Send Data</button>

</form>

<hr />

<div id="response" style="color:green;"></div>

</body>

</html>

**Lab-4**

<?php

// Read raw XML data from POST body

$xmlString = file\_get\_contents('php://input');

if (!$xmlString) {

http\_response\_code(400);

echo "No XML data received.";

exit;

}

// Parse XML

libxml\_use\_internal\_errors(true);

$xml = simplexml\_load\_string($xmlString);

if ($xml === false) {

http\_response\_code(400);

echo "Invalid XML format.";

exit;

}

$name = trim((string)$xml->name);

$email = trim((string)$xml->email);

if (!$name || !$email) {

http\_response\_code(400);

echo "Name and Email are required in XML.";

exit;

}

// (Optional) Further processing like saving to database could be done here

// Return a success message

echo "Received data for user: $name with email: $email";

?>

**Lab-5**

**1. package.json**

{  
 "name": "web-app",  
 "version": "1.0.0",  
 "main": "server.js",  
 "scripts": {  
 "start": "node server.js"  
 },  
 "dependencies": {  
 "express": "^4.18.2"  
 }  
}

**2. server.js (Back-end)**

const express = require('express');  
const path = require('path');  
const app = express();  
const PORT = 3000;  
  
app.use(express.static(path.join(\_\_dirname, 'public')));  
app.use(express.json());  
  
app.post('/submit', (req, res) => {  
 const { name, message } = req.body;  
 console.log(`Received: ${name} - ${message}`);  
 res.json({ status: 'success', reply: `Hello, ${name}! Your message was received.` });  
});  
  
app.listen(PORT, () => {  
 console.log(`Server running at http://localhost:${PORT}`);  
});

**3. public/index.html (Front-end)**

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8" />  
 <meta name="viewport" content="width=device-width, initial-scale=1.0"/>  
 <title>Contact Form</title>  
 <link rel="stylesheet" href="style.css" />  
</head>  
<body>  
 <div class="container">  
 <h1>Contact Us</h1>  
 <form id="contactForm">  
 <input type="text" id="name" placeholder="Your Name" required />  
 <textarea id="message" placeholder="Your Message" required></textarea>  
 <button type="submit">Send</button>  
 </form>  
 <p id="response"></p>  
 </div>  
 <script src="script.js"></script>  
</body>  
</html>

**4. public/style.css**

body {  
 font-family: Arial, sans-serif;  
 background: #f4f4f4;  
 display: flex;  
 justify-content: center;  
 align-items: center;  
 height: 100vh;  
}  
  
.container {  
 background: white;  
 padding: 2rem;  
 border-radius: 8px;  
 box-shadow: 0 0 10px rgba(0,0,0,0.1);  
}  
  
input, textarea {  
 width: 100%;  
 margin-bottom: 1rem;  
 padding: 0.5rem;  
}  
  
button {  
 padding: 0.5rem 1rem;  
 background: #007BFF;  
 color: white;  
 border: none;  
 cursor: pointer;  
}

**5. public/script.js**

document.getElementById('contactForm').addEventListener('submit', async (e) => {  
 e.preventDefault();  
 const name = document.getElementById('name').value;  
 const message = document.getElementById('message').value;  
  
 const response = await fetch('/submit', {  
 method: 'POST',  
 headers: { 'Content-Type': 'application/json' },  
 body: JSON.stringify({ name, message })  
 });  
  
 const result = await response.json();  
 document.getElementById('response').textContent = result.reply;  
});