**Question**

Implement some basic HTML, CSS, JavaScript concepts.

**Source Code**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>HTML Display</title>

<style>

body {

text-align: center;

font-family: Arial, sans-serif;

font-size: 20px;

margin: 20px;

}

.container {

display: flex;

justify-content: space-around;

align-items: flex-start;

width: 90%;

margin: auto;

}

.left-box {

width: 60%;

}

.pattern-box, .equation-box {

border: 2px solid black;

padding: 15px;

margin-bottom: 15px;

display: inline-block;

width: 80%;

text-align: center;

}

.right-box {

width: 35%;

border: 2px solid black;

padding: 15px;

text-align: left;

}

pre {

font-family: monospace;

font-size: 18px;

}

.equation {

font-size: 24px;

font-weight: bold;

}

.frame-container {

margin-top: 30px;

border: 2px solid black;

width: 90%;

margin-left: auto;

margin-right: auto;

padding: 15px;

}

.table-container {

margin-top: 30px;

width: 90%;

margin-left: auto;

margin-right: auto;

border-collapse: collapse;

}

table, th, td {

border: 2px solid black;

text-align: center;

padding: 8px;

}

th {

background-color: #f2f2f2;

}

#content-pane {

margin-top: 15px;

border: 2px solid black;

padding: 15px;

min-height: 150px;

text-align: left;

}

</style>

</head>

<body>

<h2>Application Development Lab 9</h2>

<div class="container">

<div class="left-box">

<div class="pattern-box">

<h3>Diamond Pattern</h3>

<pre id="pattern"></pre>

</div>

<div class="equation-box">

<h3>Mathematical Equation</h3>

<p class="equation">(x + y)<sup>2</sup> = x<sup>2</sup> + y<sup>2</sup> + 2xy</p>

</div>

</div>

<div class="right-box">

<h3>Grocery Shop List</h3>

<ul>

<li>Fruits

<ol>

<li>Apple</li>

<li>Banana</li>

<li>Grapes</li>

</ol>

</li>

<li>Vegetables

<ol>

<li>Carrot</li>

<li>Potato</li>

<li>Tomato</li>

</ol>

</li>

<li>Dairy Products

<ol>

<li>Milk</li>

<li>Cheese</li>

<li>Butter</li>

</ol>

</li>

<li>Snacks

<ol>

<li>Chips</li>

<li>Biscuits</li>

<li>Namkeen</li>

</ol>

</li>

<li>Beverages

<ol>

<li>Tea</li>

<li>Coffee</li>

<li>Juice</li>

</ol>

</li>

</ul>

</div>

</div>

<div class="frame-container">

<h3>Course Information</h3>

<table width="100%">

<tr>

<td width="30%" valign="top">

<ul>

<li><a href="#" onclick="loadContent('about')">About Us</a></li>

<li><a href="#" onclick="loadContent('c')">Course 1: C</a></li>

<li><a href="#" onclick="loadContent('cpp')">Course 2: C++</a></li>

<li><a href="#" onclick="loadContent('java')">Course 3: Java</a></li>

<li><a href="#" onclick="loadContent('python')">Course 4: Python</a></li>

</ul>

</td>

<td>

<div id="content-pane">Click a course to display details.</div>

</td>

</tr>

</table>

</div>

<div class="table-container">

<h3>Internship Data</h3>

<table width="100%">

<tr>

<th colspan="2">Organization Logo</th>

<th colspan="7">Internship Data</th>

</tr>

<tr>

<th>S.No.</th>

<th>Candidate Name</th>

<th>DOB</th>

<th>Job Code</th>

<th>Job Title</th>

<th>Date of Joining</th>

<th>Duration</th>

<th>Stipend</th>

<th>Qualification</th>

</tr>

<tr>

<td>1</td>

<td>John Doe</td>

<td>2000-05-12</td>

<td>101</td>

<td>Software Intern</td>

<td>2024-01-10</td>

<td>6 Months</td>

<td>$500</td>

<td>B.Tech CSE</td>

</tr>

<tr>

<td>2</td>

<td>Jane Smith</td>

<td>2001-08-20</td>

<td>102</td>

<td>Data Analyst Intern</td>

<td>2024-02-01</td>

<td>3 Months</td>

<td>$400</td>

<td>B.Sc. Statistics</td>

</tr>

<tr>

<td>3</td>

<td>Michael Brown</td>

<td>1999-12-15</td>

<td>103</td>

<td>Web Developer Intern</td>

<td>2024-03-05</td>

<td>4 Months</td>

<td>$450</td>

<td>BCA</td>

</tr>

<tr>

<td>4</td>

<td>Sarah Wilson</td>

<td>2002-02-10</td>

<td>104</td>

<td>AI/ML Intern</td>

<td>2024-01-15</td>

<td>5 Months</td>

<td>$550</td>

<td>B.Tech AI/ML</td>

</tr>

<tr>

<td>5</td>

<td>David Johnson</td>

<td>2000-07-25</td>

<td>105</td>

<td>Cybersecurity Intern</td>

<td>2024-02-20</td>

<td>6 Months</td>

<td>$600</td>

<td>M.Tech Cybersecurity</td>

</tr>

</table>

</div>

<script>

function generateDiamond(rows) {

let pattern = "";

let n = Math.floor(rows / 2);

for (let i = 0; i <= n; i++) {

pattern += " ".repeat(n) + "\* ".repeat(i \* 2 + 1) + "\n";

}

for (let i = n - 1; i >= 0; i--) {

pattern += " ".repeat(n) + "\* ".repeat(i \* 2 + 1) + "\n";

}

return pattern;

}

document.getElementById("pattern").textContent = generateDiamond(7);

</script>

<script>

function loadContent(page) {

const content = {

"about": "<h2>About Us</h2><p>Welcome to our online learning platform! We offer high-quality programming courses to help students and professionals enhance their skills.</p>",

"c": "<h2>Course 1: C Programming</h2><p>The C programming language is the foundation of modern software development. It is widely used in system programming, embedded systems, and game development.</p>",

"cpp": "<h2>Course 2: C++ Programming</h2><p>C++ is an extension of C with object-oriented features. It is used in high-performance applications such as game engines, financial systems, and real-time simulations.</p>",

"java": "<h2>Course 3: Java Programming</h2><p>Java is a versatile and platform-independent language used for enterprise applications, mobile development (Android), and web applications.</p>",

"python": "<h2>Course 4: Python Programming</h2><p>Python is a beginner-friendly and powerful language widely used in web development, data science, AI, and automation.</p>"

};

document.getElementById("content-pane").innerHTML = content[page];

}

</script>

</body>

</html>

**Output**

