1.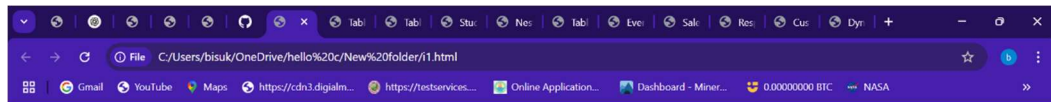 1.Create a Table with Heading and Caption: Create a table that contains a heading row with three columns: "Product", "Price", and "Quantity". Include a caption at the top of the table stating "Product List". Ensure that the table has a cellpadding of 10px and cellspacing of 5px.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Product List Table</title>
    <style>
        table {
            border-collapse: separate;
            border-spacing: 5px;
            width: 50%;
            margin: 20px auto;
            text-align: left;
        }
        th, td {
            padding: 10px;
            border: 1px solid black;
        }
        caption {
            font-size: 1.2em;
            font-weight: bold;
            margin-bottom: 10px;
        }
    </style>
</head>
<body>
    <table>
        <caption>Product List</caption>
        <tr>
            <th>Product</th>
            <th>Price</th>
            <th>Quantity</th>
        </tr>
        <tr>
            <td>Apple</td>
            <td>$1.00</td>
            <td>10</td>
        </tr>
        <tr>
            <td>Banana</td>
            <td>$0.50</td>
            <td>20</td>
        </tr>
        <tr>
```
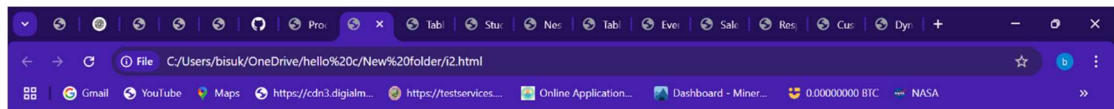
```
            <td>Orange</td>
            <td>$0.75</td>
            <td>15</td>
        </tr>
    </table>
</body>
</html>
```


2. 2.Design Table with Colspan and Rowspan • Design a table with 4 rows and 6 columns.
   Merge the first two columns in the second row using colspan and merge the first two rows
   of the third column using rowspan. The table should contain the following data: o Row 1:
   "Name", "Age", "Gender", "Country" o Row 2: "John Doe", 28, Male, USA o Row 3: "Jane
   Smith", 30, Female, Canada o Row 4: "Mike Johnson", 40, Male, UK • Set the table width
   to 80% of the page width and apply a background color of light gray to the header.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Table with Colspan and Rowspan</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
```

```html
            text-align: center;
        }
        th {
            background-color: lightgray;
        }
    </style>
</head>
<body>
    <table>
        <tr>
            <th>Name</th>
            <th>Age</th>
            <th rowspan="2">Gender</th>
            <th>Country</th>
        </tr>
        <tr>
            <td colspan="2">John Doe, 28</td>
            <td>USA</td>
        </tr>
        <tr>
            <td>Jane Smith</td>
            <td>30</td>
            <td>Female</td>
            <td>Canada</td>
        </tr>
        <tr>
            <td>Mike Johnson</td>
            <td>40</td>
            <td>Male</td>
            <td>UK</td>
        </tr>
    </table>
</body>
</html>
```

Name	Age	Gender	Country
John Doe, 28		Gender	USA
Jane Smith	30	Female	Canada
Mike Johnson	40	Male	UK

3. 3.Create a Table with Specific Height and Width: Create a table with 5 rows and 3 columns. Set the height of the first column to 100px, the second column to 150px, and the third column to 200px. Ensure the table takes up 100% of the page width. Add alternating row colors for visual clarity.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Table with Specific Height and Width</title>
    <style>
        table {
            width: 100%;
            border-collapse: collapse;
            margin: 20px auto;
        }
        th, td {
            border: 1px solid black;
            text-align: center;
        }
        /* Setting column widths */
        th:nth-child(1), td:nth-child(1) { height: 100px; }
        th:nth-child(2), td:nth-child(2) { height: 150px; }
        th:nth-child(3), td:nth-child(3) { height: 200px; }

        /* Alternating row colors */
        tr:nth-child(even) { background-color: #f2f2f2; }
        tr:nth-child(odd) { background-color: #ffffff; }
    </style>
</head>
<body>
```

```html
    <table>
        <tr>
            <th>Column 1</th>
            <th>Column 2</th>
            <th>Column 3</th>
        </tr>
        <tr>
            <td>Row 1, Col 1</td>
            <td>Row 1, Col 2</td>
            <td>Row 1, Col 3</td>
        </tr>
        <tr>
            <td>Row 2, Col 1</td>
            <td>Row 2, Col 2</td>
            <td>Row 2, Col 3</td>
        </tr>
        <tr>
            <td>Row 3, Col 1</td>
            <td>Row 3, Col 2</td>
            <td>Row 3, Col 3</td>
        </tr>
        <tr>
            <td>Row 4, Col 1</td>
            <td>Row 4, Col 2</td>
            <td>Row 4, Col 3</td>
        </tr>
        <tr>
            <td>Row 5, Col 1</td>
            <td>Row 5, Col 2</td>
            <td>Row 5, Col 3</td>
        </tr>
    </table>
</body>
</html>
```
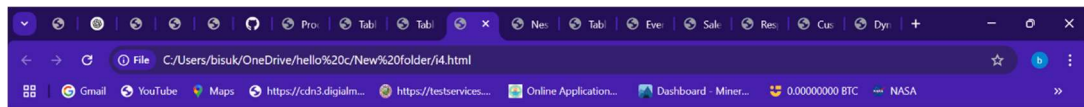
4. Design a Table with Multiple Headers and Footers: Design a table for a student database with the following columns: "Student ID", "Name", "Subject", "Grade", "Teacher". Add multiple header rows: one for the main title and another for the column names. Also, include a footer that calculates the total number of students.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student Database Table</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
        }
        thead tr:first-child th {
            background-color: lightblue;
            font-size: 1.2em;
        }
        thead tr:nth-child(2) th {
            background-color: #f2f2f2;
        }
        tfoot {
            background-color: lightgray;
```

```html
            font-weight: bold;
        }
    </style>
</head>
<body>
    <table>
        <thead>
            <tr>
                <th colspan="5">Student Database</th>
            </tr>
            <tr>
                <th>Student ID</th>
                <th>Name</th>
                <th>Subject</th>
                <th>Grade</th>
                <th>Teacher</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>101</td>
                <td>John Doe</td>
                <td>Mathematics</td>
                <td>A</td>
                <td>Mr. Smith</td>
            </tr>
            <tr>
                <td>102</td>
                <td>Jane Smith</td>
                <td>Science</td>
                <td>B+</td>
                <td>Mrs. Johnson</td>
            </tr>
            <tr>
                <td>103</td>
                <td>Mike Brown</td>
                <td>History</td>
                <td>A-</td>
                <td>Mr. Williams</td>
            </tr>
        </tbody>
        <tfoot>
            <tr>
                <td colspan="5">Total Students: 3</td>
            </tr>
        </tfoot>
    </table>
</body>
```

```
</html>
```

4. 5.Nesting Tables with Captions: Create a table containing three rows and four columns. In one of the cells, nest another table with 2 rows and 2 columns. The nested table should have a caption that reads "Nested Table". Ensure the nested table's background color is different from the outer table.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Nesting Tables</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
            border: 2px solid black;
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
        }
        caption {
            font-weight: bold;
            padding: 5px;
        }
        .outer-table {
            background-color: lightgray;
        }
```
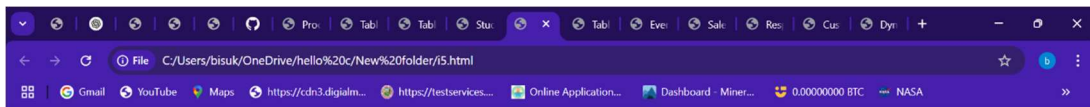
```html
        .nested-table {
            width: 100%;
            background-color: lightblue;
        }
    </style>
</head>
<body>
    <table class="outer-table">
        <caption>Main Table</caption>
        <tr>
            <th>Column 1</th>
            <th>Column 2</th>
            <th>Column 3</th>
            <th>Column 4</th>
        </tr>
        <tr>
            <td>Data 1</td>
            <td>Data 2</td>
            <td rowspan="2">
                <table class="nested-table">
                    <caption>Nested Table</caption>
                    <tr>
                        <td>Nested 1</td>
                        <td>Nested 2</td>
                    </tr>
                    <tr>
                        <td>Nested 3</td>
                        <td>Nested 4</td>
                    </tr>
                </table>
            </td>
            <td>Data 3</td>
        </tr>
        <tr>
            <td>Data 4</td>
            <td>Data 5</td>
            <td>Data 6</td>
        </tr>
    </table>
</body>
</html>
```
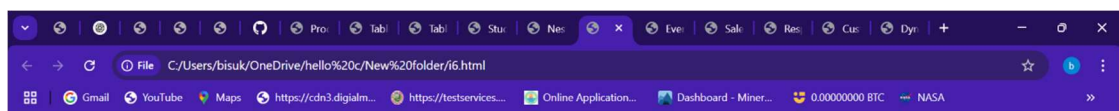
5. 6.Table with Background Image and Custom Cell Padding: Create a table with 4 rows and 2 columns, where each cell has a custom cellpadding of 15px. Apply a background image to the entire table (using the background attribute) and ensure the text inside the cells is readable. Include some dummy text for the cells.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Table with Background Image</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
            border: 2px solid black;
            background-image:
url('https://source.unsplash.com/800x600/?texture'); /* Replace with your
image URL */
            background-size: cover;
            background-position: center;
            color: white; /* Ensures text readability */
        }
        th, td {
            border: 1px solid black;
            padding: 15px;
            background-color: rgba(0, 0, 0, 0.6); /* Adds transparency for
better text contrast */
        }
        caption {
            font-weight: bold;
```

```html
            padding: 5px;
            font-size: 1.2rem;
            color: white;
            background-color: black;
        }
    </style>
</head>
<body>
    <table>
        <caption>Table with Background Image</caption>
        <tr>
            <th>Column 1</th>
            <th>Column 2</th>
        </tr>
        <tr>
            <td>Lorem ipsum dolor sit amet.</td>
            <td>Consectetur adipiscing elit.</td>
        </tr>
        <tr>
            <td>Vestibulum ante ipsum primis.</td>
            <td>In faucibus orci luctus.</td>
        </tr>
        <tr>
            <td>Aliquam erat volutpat.</td>
            <td>Donec facilisis orci.</td>
        </tr>
    </table>
</body>
</html>
```
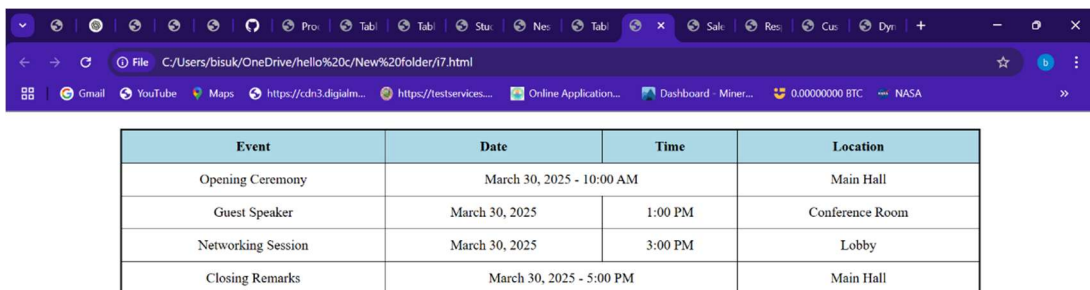
6. **7.Table with Multiple Column Span (Colspan): Create a table for an event schedule. The first row should have 4 columns: "Event", "Date", "Time", "Location". In the second row, merge the "Date" and "Time" columns using colspan. Ensure that the background color of the header row is light blue and the font is bold.**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Event Schedule</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
            border: 2px solid black;
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
        }
        th {
            background-color: lightblue;
            font-weight: bold;
        }
    </style>
</head>
<body>
    <table>
        <tr>
            <th>Event</th>
            <th>Date</th>
            <th>Time</th>
            <th>Location</th>
        </tr>
        <tr>
            <td>Opening Ceremony</td>
            <td colspan="2">March 30, 2025 - 10:00 AM</td>
            <td>Main Hall</td>
        </tr>
        <tr>
            <td>Guest Speaker</td>
            <td>March 30, 2025</td>
            <td>1:00 PM</td>
            <td>Conference Room</td>
        </tr>
        <tr>
```

```
            <td>Networking Session</td>
            <td>March 30, 2025</td>
            <td>3:00 PM</td>
            <td>Lobby</td>
        </tr>
        <tr>
            <td>Closing Remarks</td>
            <td colspan="2">March 30, 2025 - 5:00 PM</td>
            <td>Main Hall</td>
        </tr>
    </table>
</body>
</html>
```


Event	Date	Time	Location
Opening Ceremony	March 30, 2025 - 10:00 AM		Main Hall
Guest Speaker	March 30, 2025	1:00 PM	Conference Room
Networking Session	March 30, 2025	3:00 PM	Lobby
Closing Remarks	March 30, 2025 - 5:00 PM		Main Hall

7. **8.(optional) Table with Footer and Dynamic Content: Create a table with 6 rows and 4 columns to display the sales data of a store. Include a footer row where the total sales are calculated by summing the values in the "Sales" column. The footer should be aligned to the center and have a background color of dark gray. AKB**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Sales Data Table</title>
    <style>
        table {
            width: 80%;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
            border: 2px solid black;
```

```css
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
        }
        th {
            background-color: lightblue;
            font-weight: bold;
        }
        tfoot td {
            background-color: darkgray;
            font-weight: bold;
            text-align: center;
        }
    </style>
</head>
<body>
    <table id="salesTable">
        <thead>
            <tr>
                <th>Product</th>
                <th>Category</th>
                <th>Price ($)</th>
                <th>Sales ($)</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>Laptop</td>
                <td>Electronics</td>
                <td>1200</td>
                <td class="sales">5000</td>
            </tr>
            <tr>
                <td>Smartphone</td>
                <td>Electronics</td>
                <td>800</td>
                <td class="sales">4200</td>
            </tr>
            <tr>
                <td>Table</td>
                <td>Furniture</td>
                <td>300</td>
                <td class="sales">2100</td>
            </tr>
            <tr>
                <td>Shoes</td>
                <td>Fashion</td>
```
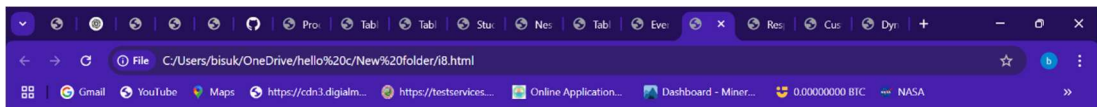
```html
            <td>100</td>
            <td class="sales">1300</td>
          </tr>
          <tr>
            <td>Washing Machine</td>
            <td>Appliances</td>
            <td>700</td>
            <td class="sales">3200</td>
          </tr>
        </tbody>
        <tfoot>
          <tr>
            <td colspan="3">Total Sales</td>
            <td id="totalSales">0</td>
          </tr>
        </tfoot>
    </table>

    <script>
        function calculateTotalSales() {
            let total = 0;
            document.querySelectorAll(".sales").forEach(cell => {
                total += parseInt(cell.innerText);
            });
            document.getElementById("totalSales").innerText = total;
        }

        // Call the function on page load
        calculateTotalSales();
    </script>
</body>
</html>
```

8. **9.Responsive Table with Nested and Multi-Row Spans: Design a table that displays employee information. The first row should be for headings, while the second row should contain merged cells for "Name" and "Job Title" using rowspan. Nest a small table inside one of the cells with employee contact details. Set a maximum table width of 600px, and ensure it is responsive (adjusting based on the screen size).**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Responsive Employee Table</title>
    <style>
        table {
            width: 100%;
            max-width: 600px;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
            border: 2px solid black;
        }
        th, td {
            border: 1px solid black;
            padding: 10px;
        }
        th {
            background-color: lightblue;
            font-weight: bold;
        }
        .nested-table {
            width: 100%;
            border-collapse: collapse;
            background-color: lightgray;
```

```html
        }
        .nested-table th, .nested-table td {
            border: 1px solid black;
            padding: 5px;
            font-size: 14px;
        }
        @media (max-width: 600px) {
            table, th, td {
                font-size: 14px;
                padding: 5px;
            }
        }
    </style>
</head>
<body>
    <table>
        <thead>
            <tr>
                <th>Name</th>
                <th>Job Title</th>
                <th>Department</th>
                <th>Contact Info</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td rowspan="2">John Doe</td>
                <td rowspan="2">Software Engineer</td>
                <td rowspan="1">IT</td>
                <td rowspan="2">
                    <table class="nested-table">
                        <caption>Contact Details</caption>
                        <tr>
                            <th>Email</th>
                            <td>johndoe@example.com</td>
                        </tr>
                        <tr>
                            <th>Phone</th>
                            <td>+123456789</td>
                        </tr>
                    </table>
                </td>
            </tr>
            <tr>
                <td>Development</td>
            </tr>
            <tr>
                <td rowspan="2">Jane Smith</td>
```
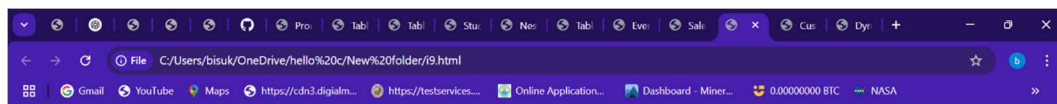
```html
            <td rowspan="2">HR Manager</td>
            <td rowspan="1">HR</td>
            <td rowspan="2">
                <table class="nested-table">
                    <caption>Contact Details</caption>
                    <tr>
                        <th>Email</th>
                        <td>janesmith@example.com</td>
                    </tr>
                    <tr>
                        <th>Phone</th>
                        <td>+987654321</td>
                    </tr>
                </table>
            </td>
        </tr>
        <tr>
            <td>Recruitment</td>
        </tr>
    </tbody>
    </table>
</body>
</html>
```


9. 10.Table with Custom Background Color and Borders: Create a table with 5 rows and 3 columns. Set the table's background color to #f0f0f0, and apply a custom border to each cell with a 2px solid blue line. The first row should have a dark gray background and white text, while the second row should have a light green background. Apply a height of 50px to each row.

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

```html
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Custom Table</title>
    <style>
        table {
            width: 100%;
            background-color: #f0f0f0;
            border-collapse: collapse;
            margin: 20px auto;
            text-align: center;
        }
        th, td {
            border: 2px solid blue;
            padding: 10px;
            height: 50px;
        }
        th {
            background-color: darkgray;
            color: white;
            font-weight: bold;
        }
        tr:nth-child(2) {
            background-color: lightgreen;
        }
    </style>
</head>
<body>
    <table>
        <thead>
            <tr>
                <th>Column 1</th>
                <th>Column 2</th>
                <th>Column 3</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>Row 1, Col 1</td>
                <td>Row 1, Col 2</td>
                <td>Row 1, Col 3</td>
            </tr>
            <tr>
                <td>Row 2, Col 1</td>
                <td>Row 2, Col 2</td>
                <td>Row 2, Col 3</td>
            </tr>
            <tr>
```

```html
            <td>Row 3, Col 1</td>
            <td>Row 3, Col 2</td>
            <td>Row 3, Col 3</td>
        </tr>
        <tr>
            <td>Row 4, Col 1</td>
            <td>Row 4, Col 2</td>
            <td>Row 4, Col 3</td>
        </tr>
        <tr>
            <td>Row 5, Col 1</td>
            <td>Row 5, Col 2</td>
            <td>Row 5, Col 3</td>
        </tr>
    </tbody>
  </table>
</body>
</html>
```


10. **11.Table with Dynamic Row and Column Sizes: Create a table with 3 rows and 3 columns. The first column should have a fixed width of 100px, the second column should have a width of 50%, and the third column should take up the remaining space. Ensure that the first row is merged using colspan across the second and third columns. Apply specific background colors to each row (row 1: blue, row 2: yellow, row 3: pink).**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Dynamic Table</title>
    <style>
```

```css
        table {
            width: 100%;
            border-collapse: collapse;
            text-align: center;
        }
        th, td {
            border: 2px solid black;
            padding: 10px;
        }
        /* Column Widths */
        .col-1 {
            width: 100px;
        }
        .col-2 {
            width: 50%;
        }
        .col-3 {
            width: auto; /* Takes remaining space */
        }
        /* Row Background Colors */
        .row-1 {
            background-color: blue;
            color: white;
        }
        .row-2 {
            background-color: yellow;
        }
        .row-3 {
            background-color: pink;
        }
    </style>
</head>
<body>
    <table>
        <tr class="row-1">
            <th class="col-1">Column 1</th>
            <th colspan="2">Merged Header (Columns 2 & 3)</th>
        </tr>
        <tr class="row-2">
            <td class="col-1">Row 2, Col 1</td>
            <td class="col-2">Row 2, Col 2</td>
            <td class="col-3">Row 2, Col 3</td>
        </tr>
        <tr class="row-3">
            <td class="col-1">Row 3, Col 1</td>
            <td class="col-2">Row 3, Col 2</td>
            <td class="col-3">Row 3, Col 3</td>
        </tr>
```
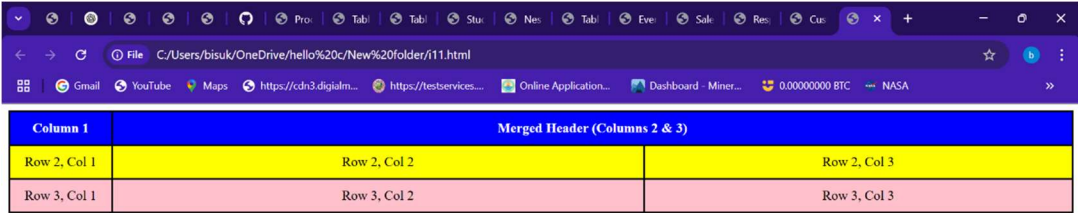
```
    </table>
</body>
</html>
```

Column 1	Merged Header (Columns 2 & 3)	
Row 2, Col 1	Row 2, Col 2	Row 2, Col 3
Row 3, Col 1	Row 3, Col 2	Row 3, Col 3