Lesson 01 Demo 02

Creating HTML Elements for JSON Server

Objective: To create an HTML file that displays a table with data from a JSON server

Tools required: Visual Studio Code and json-server

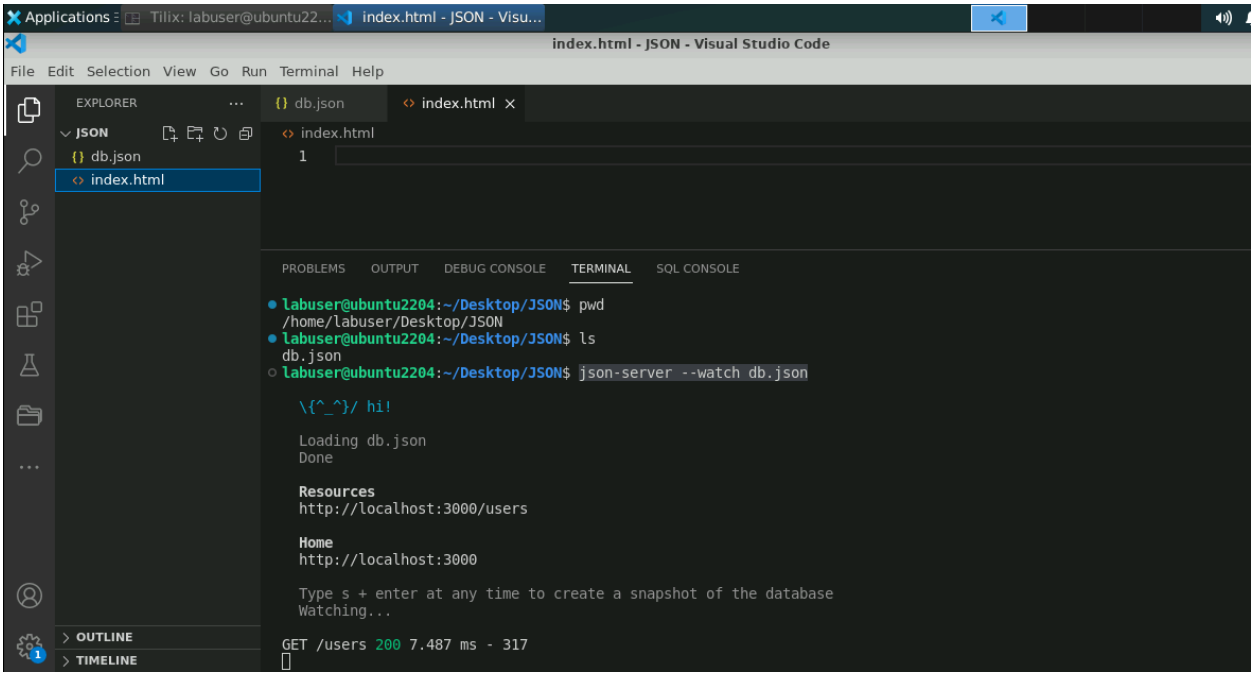
Prerequisites: Perform Lesson 01 Demo 01 and ensure **db.json** is active and running on **localhost:3000**

Steps to be followed:

1. Create an HTML file

Step 1: Create an HTML file

1.1 Open the Visual Studio Code editor and create a file named **index.html**



1.2 Add the following HTML and CSS code to the file:

```
<!DOCTYPE html>
<html>
<head>
  <title>JSON Server Demo</title>
  <style>
    table, th, td {
      border: 1px solid black;
      border-collapse: collapse;
    }
    th, td {
      padding: 10px;
    }
  </style>
</head>
<body>
  <h1>JSON Server Demo</h1>
  <table id="user-table">
    <thead>
      <tr>
        <th>ID</th>
        <th>Name</th>
        <th>Email</th>
        <th>Phone</th>
      </tr>
    </thead>
    <tbody>
      <!-- The table body will be populated with the data from the JSON server -->
    </tbody>
  </table>
<script>
</script>
</body>
</html>
```

```html
<!DOCTYPE html>
<html>
<head>
    <title>JSON Server Demo</title>
    <style>
        table,
        th,
        td {
            border: 1px solid black;
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        th,
        td {
            padding: 10px;
        }
    </style>
</head>

<body>
    <h1>JSON Server Demo</h1>
    <table id="user-table">
        <thead>
            <tr>
                <th>ID</th>
                <th>Name</th>
                <th>Email</th>
                <th>Phone</th>
            </tr>
        <tbody>
            <!-- The table body will be populated with the data from the JSON server -->
        </tbody>
    </table>
    <script>
    </script>
</body>
</html>
```

1.3 Add the following JavaScript code within the **<script>** tag in the file:

```
<script>
  // Use the fetch API to get the data from the JSON server
  fetch('http://localhost:3000/users')
  .then(response => response.json()) // Convert the response to JSON
  .then(data => {
    // Get the table body element
    let tbody = document.getElementById('user-
table').getElementsByTagName('tbody')[0];
    // Loop through the data array
    for (let user of data) {
      // Create a new table row element
      let tr = document.createElement('tr');
```

```
        // Create four table cell elements for each user property
        let td_id = document.createElement('td');
        let td_name = document.createElement('td');
        let td_email = document.createElement('td');
        let td_phone = document.createElement('td');
        // Set the text content of each table cell to the user property value
        td_id.textContent = user.id;
        td_name.textContent = user.name;
        td_email.textContent = user.email;
        td_phone.textContent = user.phone;
        // Append the table cells to the table row
        tr.appendChild(td_id);
        tr.appendChild(td_name);
        tr.appendChild(td_email);
        tr.appendChild(td_phone);
        // Append the table row to the table body
        tbody.appendChild(tr);
      }
    })
    .catch(error => {
      // Handle any errors
      console.error(error);
    });
</script>
```

```
db.json    index.html ×
index.html > html > body > script > then() callback
34      <script>
35          // Use the fetch API to get the data from the JSON server
36          fetch('http://localhost:3000/users')
37          .then(response => response.json()) // Convert the response to JSON
38          .then(data => {
39              // Get the table body element
40              let tbody = document.getElementById('user-table').getElementsByTagName('tbody')[0];
41              // Loop through the data array
42              for (let user of data) {
43                  // Create a new table row element
44                  let tr = document.createElement('tr');
45                  // Create four table cell elements for each user property
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47                  let td_name = document.createElement('td');
48                  let td_email = document.createElement('td');
49                  let td_phone = document.createElement('td');
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51                  td_id.textContent = user.id;
52                  td_name.textContent = user.name;
53                  td_email.textContent = user.email;
54                  td_phone.textContent = user.phone;
55                  // Append the table cells to the table row
56                  tr.appendChild(td_id);
57                  tr.appendChild(td_name);
58                  tr.appendChild(td_email);
59                  tr.appendChild(td_phone);
60                  // Append the table row to the table body
61                  tbody.appendChild(tr);
62              }
63          })
64          .catch(error => {
65              // Handle any errors
66              console.error(error);
67          });
68      </script>
69  </body>
70  </html>
```
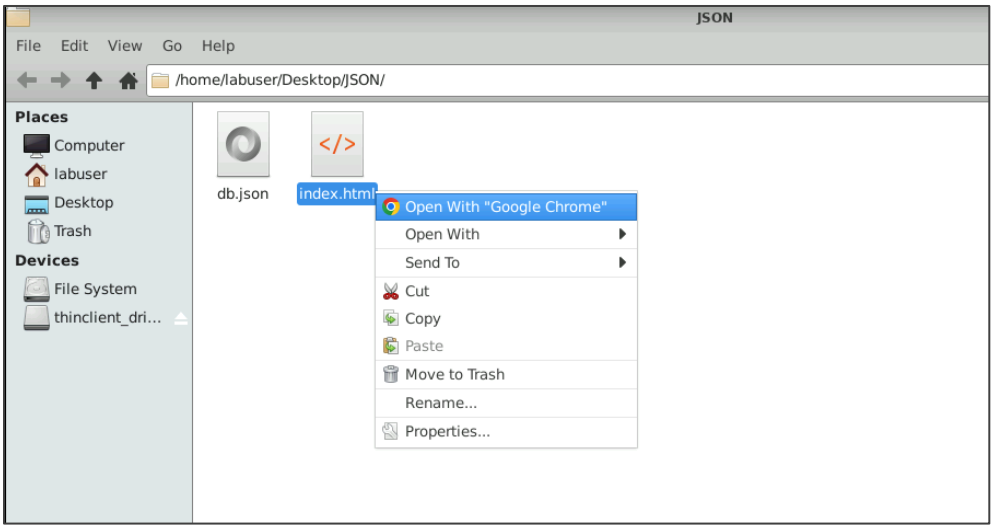
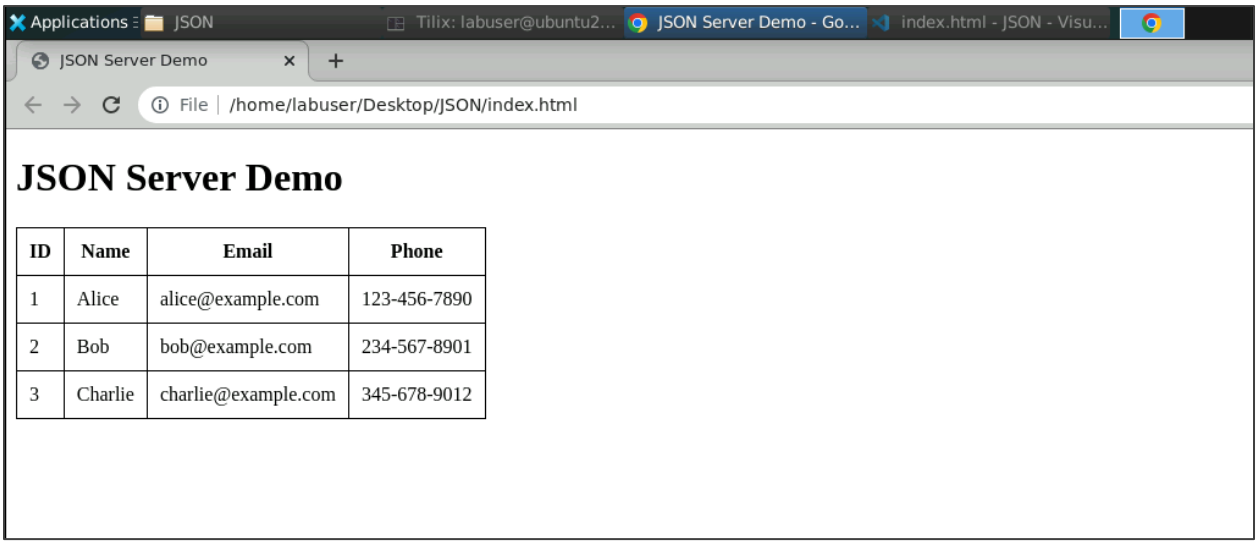

1.4 Save and open the file in a web browser to see the result





You should see a table with data fetched from the JSON server.

By following these steps, you have successfully created an HTML file that fetches and displays user data from a JSON server in a table format, combining HTML, CSS, and JavaScript to interact with a REST API.