Fall Semester 2023-24

MDI3001 – Advances in Web Technologies

Lab Digital Assessment

Ajax and JSON

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REG. NO.   : 21MID0229
SLOT   : C1+TC1 / L45+L46
DATE   : 12.11.2023
FACULTY   : Mukku Nisanth Kartheek
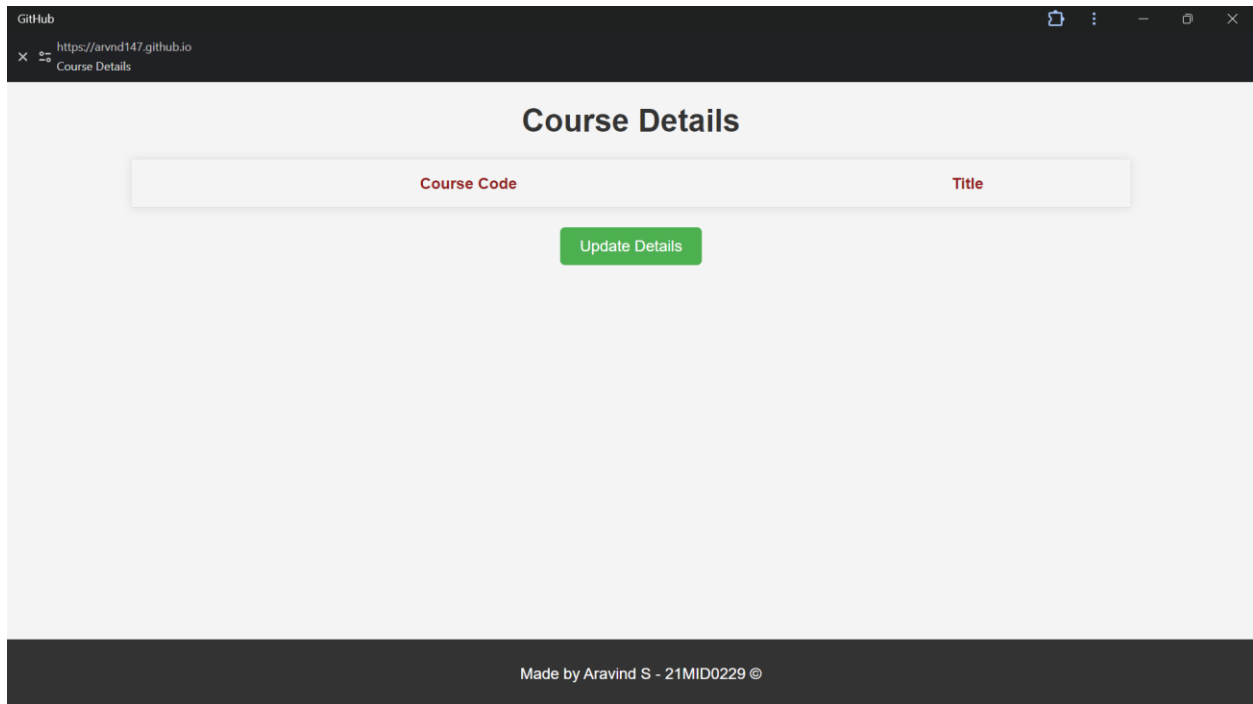**CLASS NO.** : VL2023240104226

Task:

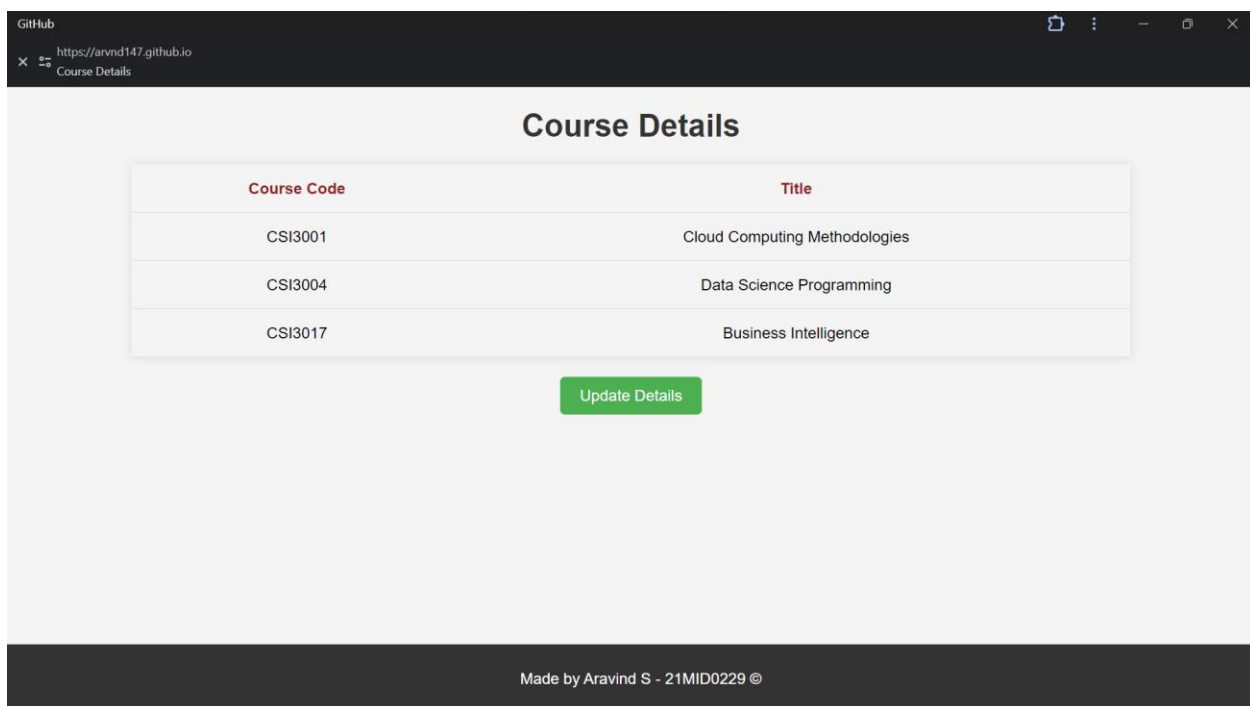Asynchronously loading JSON data.

Deployment Link:

https://arvnd147.github.io/Ajax-and-JSON/

(Deployed in GitHub Pages)

Screenshots of the webpage:

Course Details

Course Code	Title
CSI3001	Cloud Computing Methodologies

Update Details

Course Details

Course Code	Title
CSI3001	Cloud Computing Methodologies
CSI3004	Data Science Programming
CSI3017	Business Intelligence

Update Details

HTML code: (index.html)

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Course Details</title>
    <script src="script.js"></script>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <h1>Course Details</h1>
    <table class="src">
        <tr>
            <th id="code">Course Code</th>
            <th id="title">Title</th>
        </tr>
        <tbody id="courseDetails"></tbody>
    </table>
    <div class="central">
        <button type="button" onclick="loadJSON()">Update Details</button>
    </div>
    <footer>
        <p>Made by Aravind S - 21MID0229 &copy;</p>
    </footer>
</body>
</html>
```
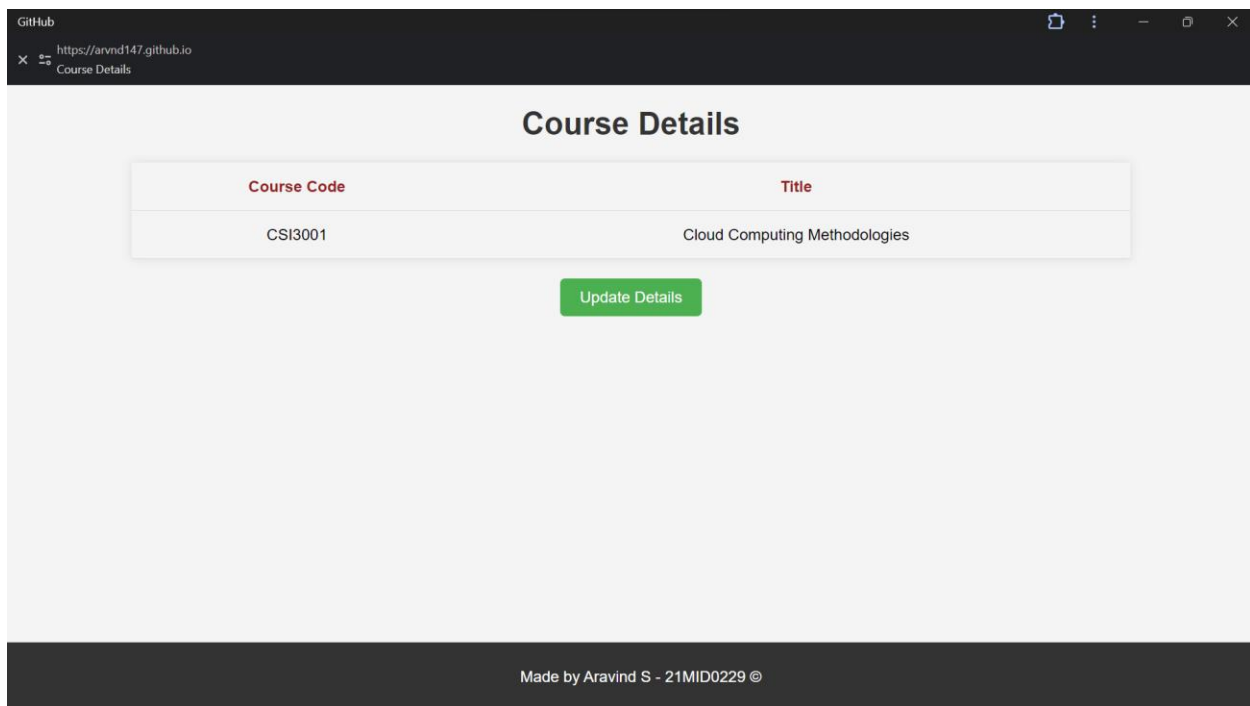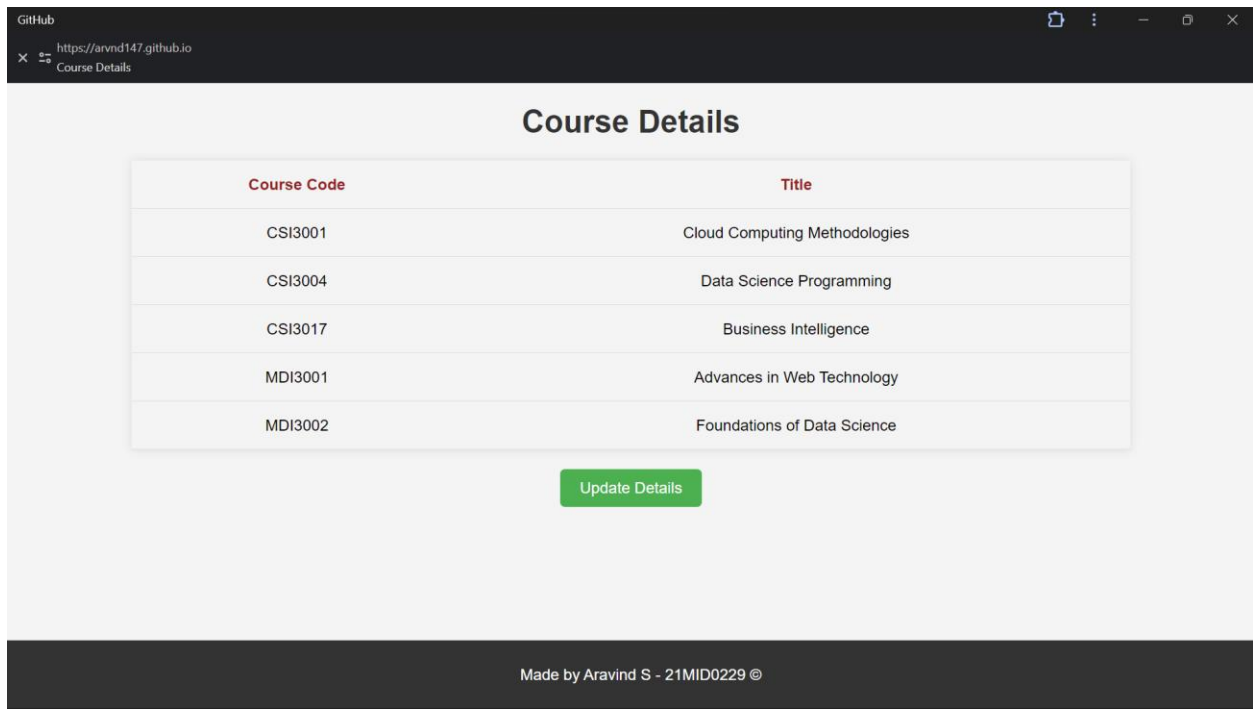
CSS code: (styles.css)

```css
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    margin: 0;
    padding: 0;
}

footer {
    background-color: #333;
    color: white;
    text-align: center;
    padding: 10px;
    position: fixed;
    bottom: 0;
    width: 100%;
}

h1 {
    color: #333;
    text-align: center;
}

table {
    width: 80%;
    margin: 20px auto;
    border-collapse: collapse;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}

th,
td {
    padding: 15px;
    text-align: center;
    border-bottom: 1px solid #ddd;
}

tr:hover {
    background-color: #f5f5f5;
}

.central {
    text-align: center;
    margin-top: 20px;
}
```

```css
button {
    padding: 10px 20px;
    font-size: 16px;
    cursor: pointer;
    background-color: #4caf50;
    color: white;
    border: none;
    border-radius: 5px;
}

button:hover {
    background-color: #45a049;
}

#code,
#title {
    font-weight: bold;
    color: #942121;
}

/* Media Query for responsiveness */
@media (max-width: 600px) {
    table {
        width: 100%;
    }
}
```

JavaScript: (script.js)

```javascript
var currentIndex = 0;

function loadJSON() {
  var data_file = "./data.json";
  var xhr = new XMLHttpRequest();

  // Define the AJAX request
  xhr.open("GET", data_file, true);

  // Set the callback function to handle the response
  xhr.onreadystatechange = function () {
    if (xhr.readyState == 4) {
      // Javascript function JSON.parse to parse JSON data
      var courses = JSON.parse(xhr.responseText);

      // player variable now contains the data structure and can
      // be accessed as player.name and player.country.
```

```javascript
      // Get the tbody element to append the rows
      var tbody = document.getElementById("courseDetails");

      // Loop through the players and dynamically generate rows
      if (currentIndex < courses.length) {
        var player = courses[currentIndex];

        var row = tbody.insertRow();
        var cellCode = row.insertCell(0);
        var cellTitle = row.insertCell(1);

        cellCode.textContent = player.code;
        cellTitle.textContent = player.title;

        currentIndex++;
      }else{
        tbody.innerHTML = "";
        currentIndex = 0;
      }
    }
  };
  //send the request
  xhr.send();
}
```

JSON: (data.json)

```json
[
    {"code": "CSI3001", "title": "Cloud Computing Methodologies"},
    {"code": "CSI3004", "title": "Data Science Programming"},
    {"code": "CSI3017", "title": "Business Intelligence"},
    {"code": "MDI3001", "title": "Advances in Web Technology"},
    {"code": "MDI3002", "title": "Foundations of Data Science"}
]
```

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