Session	2025-2026 (ODD)	**Course Name**	Web Technology Lab
Semester	03	**Course Code**	23CT1301
Roll No	65	**Name of Student**	Radhesham Gonare

Practical Number	# Practicle no.4
Course Outcome	1. Understand various internet technologies. 2. Design the web pages using HTML and CSS. 3. Implement the XML technology to store the data. 4. Develop the interactive web pages using JavaScript.
Aim	Write a program in JSON to store information related to programming books along with edition and author name.
Problem Definition	Write a program in JSON to store information related to programming books along with edition and author name.

Theory	JSON (JavaScript Object Notation) is a lightweight text-based format used for storing and exchanging structured data. It is language independent and easy to read and write. JSON was specified by Douglas Crockford and extended from JavaScript language. In this program, JSON is used to store information about programming books along with their edition and author name. The data is arranged in key–value pairs where the root object contains an array of book objects. Each book object has fields such as “title”, “edition”, and “author”. JSON is widely used in web applications, APIs, and data transfer between server and client.
Procedure And Execution	**Procedure** 1. First, create a JSON object to store programming books information. 2. Each book will have three attributes: **title**, **edition**, and **author**. 3. Store multiple book records inside an **array** within the JSON object. 4. Save this file with a .json extension if only data is required. 5. To execute in browser, embed JSON data inside a **JavaScript program** in an HTML file. 6. Use JavaScript to iterate over the array and display book details dynamically.

	Execution 1. Open **Visual Studio Code** and create a file named index.html. 2. Write the HTML structure and include a <script> tag with JSON data inside.

	3. Use JavaScript to access the JSON object and display details in a list format. 4. Save the file and run it using **Live Server** extension or open directly in Chrome. 5. The output will show a list of programming books with their edition and author names.
Github link	https://github.com/Radhesham03

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HTML Code:-

json.html > html

```html
<!DOCTYPE html>
<html>
<head>
  <title>Programming Books</title>
</head>
<body>
  <h1>Programming Books</h1>
  <ul id="bookList"></ul>

  <script>
    // JSON data as a JavaScript object
    const data = {
      "programmingBooks": [
        { "title": "Learning JavaScript", "edition": "3rd", "author": "Ethan Brown" },
        { "title": "Python Crash Course", "edition": "2nd", "author": "Eric Matthes" },
        { "title": "Effective Java", "edition": "3rd", "author": "Joshua Bloch" },
        { "title": "Head First Java", "edition": "2nd", "author": "Kathy Sierra, Bert Bates" }
        { "title": "Clean Code", "edition": "1st", "author": "Robert C. Martin" }
      ]
    };

    const bookList = document.getElementById("bookList");

    data.programmingBooks.forEach(book => {
      const li = document.createElement("li");
      li.textContent = `${book.title} (${book.edition}) - Author: ${book.author}`;
      bookList.appendChild(li);
    });
  </script>
</body>
</html>
```

Output:

Programming Books

- Learning JavaScript (3rd) - Author: Ethan Brown
- Python Crash Course (2nd) - Author: Eric Matthes
- Effective Java (3rd) - Author: Joshua Bloch
- Head First Java (2nd) - Author: Kathy Sierra, Bert Bates
- Clean Code (1st) - Author: Robert C. Martin