

# CP 323 Lab Activity: Making HTTP Requests with Axios in JavaScript.

## What is Axios?

**Axios** is a **promise-based HTTP client** for JavaScript that allows you to request external resources (like REST APIs) from the browser or [Node.js](#).

## Key Features

1. **Promise-based:** Works seamlessly with `async/await` or `.then()` syntax.
2. **Client-Side & Server-Side:** Works in both the **browser** and **Node.js**.
3. **Automatic JSON Handling:** Automatically converts response data to JSON and handles request payloads.
4. **Built-in XSRF Protection:** Automatically handles CSRF tokens in modern frameworks.
5. **Request and Response Interceptors:** Modify requests or handle errors globally.
6. **Supports Request Cancellation:** Via `AbortController` or `CancelToken`.
7. **Wide Browser Support:** Supports older browsers better than the native `fetch()` API.

## Syntax

```
axios.post(url, data, config)
```

## Project Setup

Create a folder named `axios-lab`, and inside it create the following files:

### 1. `index.html`

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
```

```
<title>Axios Lab</title>
</head>
<body>
  <h1>Axios HTTP Requests</h1>

  <button onclick="getUsers()">GET Users</button>
  <button onclick="createUser()">POST New User</button>

  <div id="output"></div>

  <script
src="https://cdn.jsdelivr.net/npm/axios/dist/axios.min.js"></script>
  <script src="script.js"></script>
</body>
</html>
```

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## 2. 📄 script.js

```
const output = document.getElementById('output');

// Function to display users
function renderUsers(users) {
  output.innerHTML = '<h2>Users:</h2><ul>' +
    users.map(user => `<li>${user.name}</li>`).join('') +
    '</ul>';
}

// GET request using Axios
function getUsers() {
  axios.get('https://jsonplaceholder.typicode.com/users')
    .then(response => {
      console.log('GET response:', response);
      renderUsers(response.data);
    })
    .catch(error => {
      console.error('GET error:', error);
    });
}
```

```
        output.innerHTML = `

Error fetching users:
${error.message}</p>`;
    });
}

// POST request using Axios
function createUser() {
    const newUser = {
        name: 'John Doe',
        username: 'johndoe',
        email: 'john@example.com'
    };

    axios.post('https://jsonplaceholder.typicode.com/users', newUser)
        .then(response => {
            console.log('POST response:', response);
            output.innerHTML = `

User created: ${response.data.name}</p>`;
        })
        .catch(error => {
            console.error('POST error:', error);
            output.innerHTML = `

Error creating user:
${error.message}</p>`;
        });
}


```