

The difference between Axios and Fetch

Fetch is a native Web API built into modern browsers that provides a JavaScript interface for accessing and manipulating HTTP requests and responses. It's part of the browser's standard functionality.

Axios is a popular third-party JavaScript library that provides a promise-based HTTP client for making requests. It works in both browsers and Node.js environments.

Key Differences

Browser Support

- **Fetch:** Native in modern browsers, but requires polyfills for older browsers (IE doesn't support it)
- **Axios:** Works across all browsers including older ones, as it's a library that handles compatibility internally

Syntax and Usage

Fetch requires more verbose syntax:

```
fetch('https://api.example.com/data')
  .then(response => {
    if (!response.ok) {
      throw new Error('Network response was not ok');
    }
    return response.json();
  })
  .then(data => console.log(data))
  .catch(error => console.error('Error:', error));
```

Axios has cleaner, more concise syntax:

```
axios.get('https://api.example.com/data')
  .then(response => console.log(response.data))
  .catch(error => console.error('Error:', error));
```

Feature	Fetch	Axios
Availability	Built-in (no installation needed)	Requires installation (npm install axios)
Syntax Simplicity	More verbose	Cleaner & concise
Automatic JSON Parsing	No – you must call .json() manually	Yes – auto-parses JSON
Error Handling (HTTP)	No – doesn't throw on 404/500 errors	Yes – throws for HTTP status errors
Network Error Handling	Yes	Yes
Request Timeout	Not supported natively	Built-in via config (timeout)
Request/Response Interceptors	Not available	Supported
Request Cancellation	Needs AbortController	Built-in using CancelToken (deprecated)
Header Configuration	Manual (especially for JSON)	Auto-sets headers (e.g., Content-Type)
Upload/Download Progress	Not supported directly	Supported via onUploadProgress , etc.
Browser Support	Modern browsers only (not IE)	Supports older browsers too
File Size	Lightweight (no extra code)	Slightly heavier due to extra features

Recommendation

Use **Axios** for:

- Larger projects
- Better error handling
- Easier configuration (headers, timeouts, interceptors)

Use **Fetch** for:

- Simpler tasks
- Reducing bundle size
- When polyfill/browser support isn't an issue