**Notion Notes: Fetch**

**What is AJAX?**

AJAX = **A**synchronous **J**avaScript **A**nd **X**ML.

AJAX is not a programming language.

AJAX just uses a combination of:

* A browser built-in XMLHttpRequest object (to request data from a web server)
* JavaScript and HTML DOM (to display or use the data)

AJAX is a misleading name. AJAX applications might use XML to transport data, but it is equally common to transport data as plain text or JSON text.

AJAX allows web pages to be updated asynchronously by exchanging data with a web server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page.

# Modern Browsers (Fetch API)

Modern Browsers can use Fetch API instead of the XMLHttpRequest Object.

The Fetch API interface allows web browser to make HTTP requests to web servers.

If you use the XMLHttpRequest Object, Fetch can do the same in a simpler way.

### **Introduction to Fetch API**

* **Definition**: Fetch API is a modern interface for fetching resources (such as JSON, HTML, or images) across the network.
* **GET Method**: Fetch API supports various HTTP methods, including GET, POST, PUT, DELETE, etc. In this note, we'll focus solely on the GET method.

### **Understanding GET Method**

* **GET Request**: Used to retrieve data from a specified resource.
* **Syntax**:

javascriptCopy code

fetch('url')

.then(response => response.json())

.then(data => {

// Handle retrieved data

})

.catch(error => {

// Handle errors

});

### **Advantages of Using GET Method**

1. **Caching**: GET requests can be cached by browsers and intermediaries, improving performance for subsequent requests.
2. **Bookmarking**: Since GET requests are part of the URL, they can be bookmarked and shared easily.
3. **Idempotent**: GET requests are idempotent, meaning they can be repeated multiple times without changing the server's state.

### **Best Practices**

* **Security**: Avoid sending sensitive information via GET requests as they can be visible in browser history and server logs.
* **URL Length Limitation**: Be cautious of URL length limitations imposed by browsers and servers.
* **Cache Control**: Set appropriate cache-control headers to control caching behavior.

### **Conclusion**

* Understanding the GET method in Fetch API is crucial for fetching data from servers efficiently and securely.
* By adhering to best practices, developers can leverage the full potential of the GET method for seamless data retrieval.