

CODE EXERCISE

JAVASCRIPT FETCH

LAB 1

JavaScript's `fetch()` method is a powerful tool for working with web APIs. Here's a tutorial that demonstrates how to use the `fetch()` method to access a public API and retrieve data. We will use the JSONPlaceholder API (<https://jsonplaceholder.typicode.com/>) as an example.

1) Create an HTML file called "fetch.html" and add the following code:

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript Fetch</title>
</head>
<body>
  <button id="get-data-button">Get Data</button>
  <div id="data-container"></div>
  <script src="fetch.js"></script>
</body>
</html>
```

This creates a simple HTML page with a button that says "Get Data!" and a div element that will be used to display the retrieved data. We also include a link to a JavaScript file called "fetch.js" which will contain our JavaScript code.

2) Create a file called "fetch.js" in the same directory as "fetch.html" and add the following code:

```
const getDataButton = document.getElementById("get-data-button");
const dataContainer = document.getElementById("data-container");

getDataButton.addEventListener("click", () => {
  fetch('https://jsonplaceholder.typicode.com/posts')
  .then(response => response.json())
  .then(data => {
    data.forEach( post => {
      let postData = document.createElement('div');
      postData.innerHTML = `

## ${post.title}</h2> <p>${post.body}</p>`; dataContainer.appendChild(postData); }); }); });


```

SUBMITTING EXERCISES

To earn certification all exercises must be submitted and accepted.

1) When you've completed all of the HTML exercises, please zip them into a single file and submit to our Dropbox at <http://bit.ly/CWDP2324>.

2) Next, fill out the certification completion form at <https://forms.gle/5EiUGCM6dGdIF2Py6>.

Remember, that all of your exercises for each module should be included in a separate zip file.

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1) We operate a lively Discord server. Join us at <https://discord.gg/tgxX2fCrv5> and you can ask your question on Discord. Mark and our team of instructional assistants monitor this Discord and answer questions ASAP.

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```
.catch(err => {  
    console.log(err);  
});  
});
```

This code uses the `getElementById()` method to select the `getDataButton` and `dataContainer` elements. Then, it uses the `addEventListener()` method and arrow function to attach a “click” event listener to the button. When the button is clicked, the anonymous function passed to `addEventListener()` is executed, which will call the `fetch()` method to retrieve data from the JSONPlaceholder API. The `fetch()` method returns a promise, so we use the `.then()` method to handle the response and retrieve the json data. It then loops through the posts and creates new div element for each post which is then added to `dataContainer`.

3) Open “fetch.html” in a web browser.

4) Click the button “Get Data” and you should see the list of posts along with their titles and bodies being displayed on the page

This example demonstrates a basic use of `fetch()` method, you can also pass additional options such as headers, and also use different HTTP methods like POST, PUT, DELETE using `fetch()`. you can also use `await` instead of `.then()` to make the code more readable. Also JSONPlaceholder API has many more endpoints like `/comments`, `/albums` etc you can use as per your requirement.

LAB 2

Using the OpenWeatherMap API (<https://openweathermap.org/api>), create a JavaScript program that retrieves the current weather data for a given city and displays the information on a web page. You will need to obtain an API key from the site and read the API documentation for this to work correctly.

- Use the `fetch()` method to retrieve the data from the API.
- The information should be displayed in a format of your choice, with the temperature, humidity and wind speed being displayed on the page
- You should have a button that user can enter a city name and on button click it makes the fetch call and displays the weather information

Deliverable:

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JAVASCRIPT FETCH

- A single HTML file called weather.html
- A single JavaScript file called weather.js

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