

# Learn JavaScript Syntax: Requests

## JSON-Formatted Response Body

The `.json()` method will resolve a returned promise to a JSON object, parsing the body text as JSON.

In the example code, the `.json()` method is used on the `response` object which returns a promise to a JSON-formatted response body as `jsonResponse`.

```
fetch('url')
  .then(
    response => response.json()
  ).then(jsonResponse => {
    console.log(jsonResponse);
  });
```

## HTTP GET Request

HTTP `GET` requests are made with the intention of retrieving information or data from a source (server) over the web.

`GET` requests have no *body*, so the information that the source requires, in order to return the proper response, must be included in the request URL path or query string.

## The `fetch()` Function

The JavaScript Fetch API is used to write HTTP requests using Promises. The main `fetch()` function accepts a URL parameter and returns a promise that resolves to a response object or rejects with an error message if a network error occurs.

The example code begins by calling the `fetch()` function. Then a `then()` method is chained to the end of the `fetch()`. It ends with the response callback to handle success and the rejection callback to handle failure.

```
fetch('url')
  .then(
    response => {
      console.log(response);
    },
    rejection => {
      console.error(rejection.message);
    }
  );
```

);

## Customizing Fetch Requests

The `fetch()` function accepts an optional second argument, an options object, used to customize the request. This can be used to change the request type, headers, specify a request body, and much more.

In the example code below, the `fetch()` function as a second argument—an object containing options for the fetch request specifying the `method` and the `body`.

```
fetch('https://api-to-call.com/endpoint', {
  method: 'POST',
  body: JSON.stringify({id: "200"})
}).then(response => {
  if(response.ok){
    return response.json();
  }

  throw new Error('Request failed!');
}, networkError => {
  console.log(networkError.message);
}).then(jsonResponse => {
  console.log(jsonResponse);
})
```

## HTTP POST Request

HTTP POST requests are made with the intention of sending new information to the source (server) that will receive it.

For a POST request, the new information is stored in the *body* of the request.

## Using async...await with Fetch

The `async ... await` syntax is used with the Fetch API to handle promises.

In the example code, the `async` keyword is used to make the

`getSuggestions()` function an async function. This means that the function will return a promise. The `await` keyword used before the `fetch()` call makes the code wait until the promise is resolved.

```
const getSuggestions = async () => {
  const wordQuery = inputField.value;
  const endpoint = `${url}${queryParams}${wordQuery}`;
  try{
```

```
const response = await fetch(endpoint, {cache: 'no-cache'});

if(response.ok){
    const jsonResponse = await response.json()
}

catch(error){
    console.log(error)
}
```

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