API CheatSheet

Saad Irfan
@DevWithSaad

What is an API?

In simple terms, an API (Application Programming Interface) is a set of protocols and tools for building software applications.

APIs allow different software applications to communicate with each other and exchange data.

API Authentication

API Authentication is the process of verifying the identity of a user or application that is attempting to access an API.

```js
index.js

const url = 'https://example.com/api/endpoint';
const headers = new Headers();
headers.set('Authorization', 'Basic YOUR_API_KEY_HERE');

fetch(url, { headers })
   .then(response ⇒ response.json())
   .then(data ⇒ console.log(data));
```

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HTTP Request Methods

HTTP request methods are an essential part of working with APIs.

```js
// Define the API endpoint
const apiUrl = 'https://jsonplaceholder.typicode.com/posts';

// Make a GET request to the API endpoint
fetch(apiUrl)
  .then(response ⇒ response.json())
  .then(data ⇒ console.log(data))
  .catch(error ⇒ console.error(error));

// Make a POST request to the API endpoint
fetch(apiUrl, {
  method: 'POST',
  headers: {
    'Content-Type': 'application/json'
  },
  body: JSON.stringify({
    title: 'My New Post',
    body: 'This is my new post content.',
    userId: 1
  })
})
  .then(response ⇒ response.json())
  .then(data ⇒ console.log(data))
  .catch(error ⇒ console.error(error));
```

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API Endpoint URLs

API endpoint URLs are used to access specific resources on the API server.

index.js

```js
// API endpoint
const url = 'https://example.com/api/endpoint/1234';

// request the API endpoint
fetch(url)
   .then(response ⇒ response.json())
   .then(data ⇒ console.log(data));
```

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Query Parameters

Query parameters are used to filter or modify API responses.

```js
                              index.js

const url = 'https://example.com/api/endpoint';

// query parameters object
const params = { filter: 'completed', sort: 'date' };

// integrated query parameters with the API endpoint
// using (?)
fetch(`${url}?${new URLSearchParams(params)}`)
   .then(response ⇒ response.json())
   .then(data ⇒ console.log(data));
```

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Request Headers

Request headers are used to provide additional information about an API request.

```js
                              index.js

const url = 'https://example.com/api/endpoint';

// set request headers
const headers = new Headers();
headers.set('X-Custom-Header', 'Value');

fetch(url, { headers })
  .then(response ⇒ response.json())
  .then(data ⇒ console.log(data));
```

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