



Chapter 26

Fetch and JSON



Chapter Breakdown

- 26.1 Introduction
- 26.2 Data Formats and JSON
- 26.3 Fetching Data
- 26.4 Asynchronous and Promises



26.1 Introduction

Introduction

API

API: Application Programming Interface

Communicates from application to application.

We will be using `fetch()` and JSON to do this.

26.2 Data Formats and JSON

Data Formats and JSON

JSON

JSON Rules

JSON vs Javascript Object Difference

- JSON - Javascript Object Notation
 - JSON Rules
 - Key must be a String
 - Keys must be in double quotes "key"
 - Value can be anything
 - JSON vs Javascript Object
 - JSON keys have to use double quotes
 - Javascript Object keys do not
 - JSON strings have to have double quotes
 - Javascript Object strings can use single or double quotes.
 - When we make an API request, the API formats data we requested into JSON and sends it back with the JSON representation of our request.
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26.3 Fetching Data

Fetching Data

fetch Function

fetch Example

View Get request

Response Object

Using the DOM and JSON data to update
the page

- fetch Function
 - Global function that requests data from an API
 - string URL
 - then method
 - anonymous function
 - response parameter
- fetch Example

```
fetch("https://handlers.education.launchcode.org/static/weather.json").then(function(response)  
  console.log(response);  
} );
```




26.4 Asynchronous and Promises



Asynchronous and Promises

Response Handlers
Promises and the then Function
More Promises

- Asynchronous
 - Not simultaneous or current in time
- Response Handlers
 - .then method is a response handler
 - Browser doesn't wait for the response
 - This response is called a promise
- Promises
 - Fetch returns an instance of the Promise Class
 - This Class represents a promise of the eventual outcome of the asynchronous event
- How promises work
 - Send request
 - When response is received
 - THEN run response handler
- Promises can represent the outcome of any _____ asynchronous event

Fun API's to mess around with!

SWAPI - <https://swapi.dev/>

Pokemon API - <https://pokeapi.co/>

Twitter - <https://developer.twitter.com/en/docs>

Blizzard - <https://develop.battle.net/>