Module 4 Day 18

Asynchronous Programming in JS

Definitions

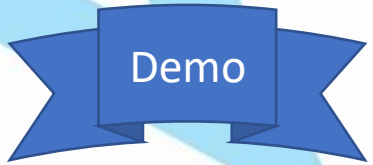
Term	Definition
API	Application Programming Interface. A set of functions and procedures allowing other applications to access the features or data of an operating system, application, or other service. An API may be for a web-based system, operating system, database system, computer hardware, or software library.
Web API or Web Service	A service (API) offered by an application or device to another application, which communicate with each other via the World Wide Web (typically HTTP).
REST	Representational State Transfer. One style of web service which utilizes HTTP features (statelessness, Request and Response, and GET, PUT, POST and DELETE methods) for accessing and updating data.
Consumer	A user of web services. This is software, not a person.
Endpoint	The "location" at which a service's features (methods / data) can be accessed. For a web service, this is usually a URL.

Asynchronous Programming

- Start an operation, but don't wait for completion before moving on
- When we start the operation, specify "what to do" when the operation completes
  - The function returns us a "Promise"
  - The Promise is "pending"
- Move on to do more work while the operation is taking place
- When the operation finishes, the above "what to do" code is called
  - The Promise is "fulfilled"

Http with Axios

```
// Send an HTTP GET request to the nps parks api, returns a Promise of a Response
axios.get(npsURL)
    .then((response) => {       // Get a Response object once the GET completes
        const parks = response.data; // The api returns a collection of parks
        if (parks.data.length > 0) {
```



JavaScript "Service" Objects

```
1   import axios from 'axios';
2
3   const http = axios.create({
4     baseURL: "http://localhost:3000"
5   });
6
7   export default {
8
9       list() {
10        return http.get('/docs');
11      },
12      get(id) {
13          return http.get(`/docs/${id}`)
14        }
15    }
```

Let's Code