Software Development for Web and Mobile

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Software Development for Web and Mobile

Plan for today

Today we will:

- Learn how to communicate with the backend
- Review last day exercises
- Do some exercises in class

Fetch

fetch is the way of calling HTTP services from Javascript.

```
fetch("url"); //done!
```

Fetch

We can customize our request using the second parameter:

```
fetch(
    "url",
    {
        method: "POST",
        headers: {},
        body: "this is the body"
    }
);
```

Fetch

but, how do we use the data returned from the server?

let's open the console and see what does the following snippet return.

```
let a = fetch("http://google.com");
```

Promises

Promises are the solution used in JS for when we don't want to **block the program** while a long running task is made.

By using promises, we create **asynchronous** code.

Promises

fetch uses **Promises** to work asynchronously.

Promises can be **pending**, **fulfilled** or **rejected**.

- **pending**: the promise hasn't finished yet.
- **fulfilled**: the promise finished correctly.
- **rejected**: there was an error in the promise

Promises

We use the methods **then** and **catch** to handle the different outcomes of the promise (**fulfilled** and **rejected** respectively)

```
let a = fetch("https://google.com")

a.then((result) => console.log("the promise is fulfilled, and returned" + resu

a.catch((error) => console.log("the promise failed with " + error)
```

Back to fetch

To get the JSON response from fetch we need to use promise's **then** method:

```
fetch("http://api.open-notify.org/iss-now.json")
  .then(data => data.json())
  .then(json => console.log(json))
```

Last day homework

White belt

Create a simple webpage in which, when a button is clicked, all the links change their background to blue and their text color to white.

Blue belt

Investigate the functional methods on array. Namely **map**, **filter**, **forEach**, and **reduce**.

Try to apply them to the following cases:

- given an array of numbers, return only the **even ones**
- given an array of numbers, return its **sum**
- given an array of numbers, **log all** in the console
- given an array of numbers, return a new array with **all elements squared**

Black belt

Investigate about forms in HTML.

Create a **simple** web page in which the user can write the name of a song in an **input** field and get the lyrics of that song.

You'll also need to investigate how to do HTTP requests from Javascript (https://developer.mozilla.org/en-US/docs/Web/API/Fetch_API/Using_Fetch).

This is the API you'll need to use https://lyricsovh.docs.apiary.io/#reference/0/lyrics-of-a-song/search?console=1

Exercises

Clone
https://github.com/mcsbt-2019-web-and-mobile/session5-exercises

Exercises

Let's review **server.py** together

Exercises

Open **exercises.js**

Homework

There's no homework this week. There will be an individual assignment.