GENERAL ASSEMBLY

JAVASCRIPT DEVELOPMENT

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HELLO!

1. Pull changes from the `svodnik/JS-SF-7` repo to your computer
2. Open the `starter-code` folder in your code editor
3. If you haven't already done so, create an account on 500px.com

LEARNING OBJECTIVES

At the end of this class, you will be able to

- Generate API specific events and request data from a web service.
- Implement a geolocation API to request a location.
- Process a third-party API response and share location data on your website.
- Make a request and ask another program or script to do something.
- Search documentation needed to make and customize third-party API requests.

AGENDA

- Callbacks/IIFEs review
- Configure 500px account and tools
- Implement authorization
- Implement geolocation
- Create and send API call
- Handle API response

QUESTIONS & FEEDBACK FROM EXIT TICKETS

- “Spend a little more time on covering functions concepts again since we haven't covered them in a while.”
- “Better examples”

Checkin and questions

- The **most significant thing I learned** about asynchronous JavaScript, callbacks, and IIFEs is _____.
- My **biggest outstanding question** about asynchronous JavaScript, callbacks, and IIFEs is _____.

REVIEW

FUNCTIONS

FUNCTIONS ARE FIRST-CLASS OBJECTS

- Functions can be used in any part of the code that strings, arrays, or data of any other type can be used
- We can store functions as variables
- We can pass them as arguments to other functions
- We can return them from other functions
- We can run them without otherwise assigning them

STORING VALUES AS VARIABLES

```
var firstName = "Sasha";
var numberOrdered = 5;
```

STORING A FUNCTION AS A VARIABLE

```
var logOrder = function() {
  console.log("Order is complete.");
};
```

PASSING A NUMBER AS AN ARGUMENT

```
function doubler(number) {
  return (number * 2);
}

doubler(2); // returns 4
```


passing the value 2 as an argument to the `doubler()` function

PASSING A FUNCTION AS AN ARGUMENT

```
var averages = [1.53, 5.91, 23.881];
var rounded = [];

averages.forEach(function(value) {
  rounded.push(Math.round(value));
});
```

passing an anonymous function as an argument to the `forEach()` function

RETURNING A VALUE FROM A FUNCTION

```
function doubler(number) {
  return (number * 2);
}

doubler(2); // returns 4
```

function returns the calculated value of the `number` parameter x 2

RETURNING A FUNCTION FROM A FUNCTION

```
function doubler(number) {
  return function() {
    console.log(number * 2);
  }
}

var doubleTwo = doubler(2);// returns a function
doubleTwo() // returns 4
```

function returns a function that when called, logs the value of the `number` parameter x 2

CALLBACKS

CALLBACK

- A function that is passed to another function as an argument, and that is then called from within the other function
- A callback function can be anonymous (as with `setTimeout()` or `forEach()`) or it can be a reference to a function defined elsewhere

CALLBACK WITH ANONYMOUS FUNCTION

```
setTimeout(function(){
  console.log("Hello world");
}, 1000);
```

CALLBACK WITH NAMED FUNCTION

```
function helloWorld() {
  console.log("Hello world");
}

setTimeout(helloWorld, 1000);
```

CALLBACK IN AJAX CODE

```
$.get( "ajax/test.html", function( data ) {
  $( ".result" ).html( data );
  alert( "Load was performed." );
});
```

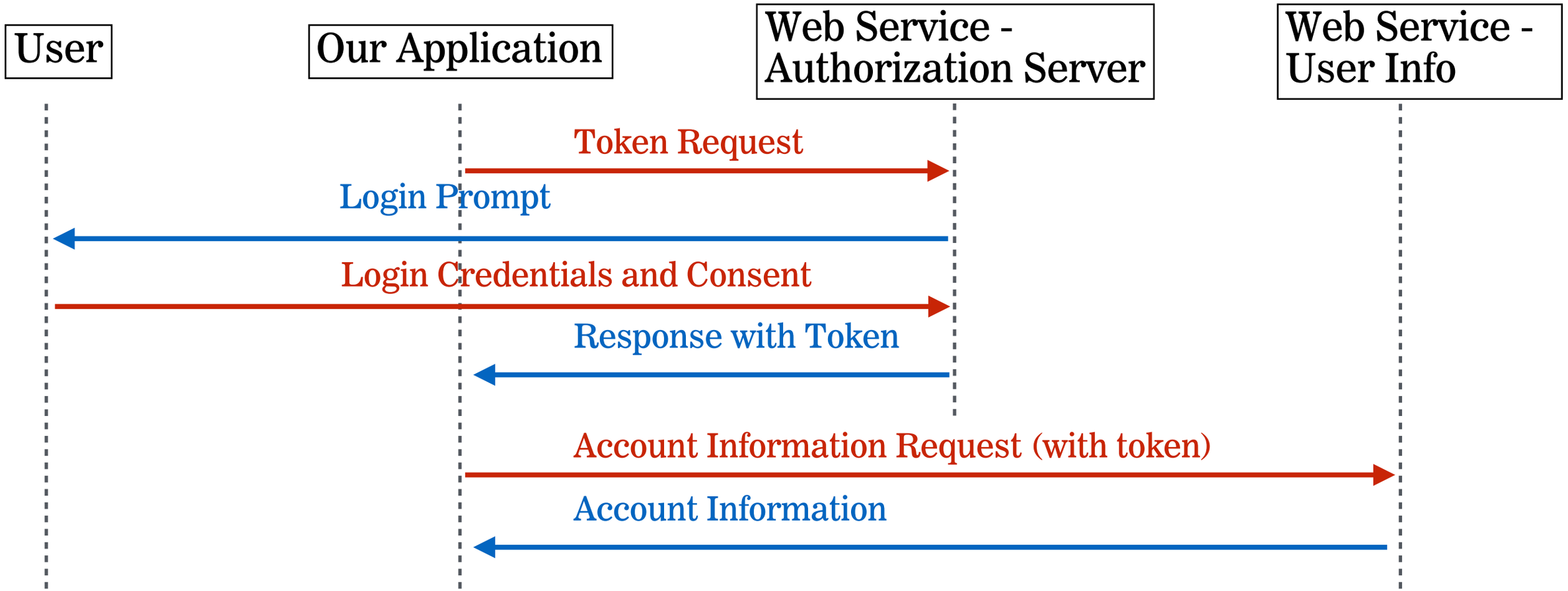
CALLBACK IN AJAX CODE

```
$.get( "ajax/test.html", function( data ) {
  $( ".result" ).html( data );
  alert( "Load was performed." );
});
```

ADVANCED APIS

Have you ever granted an app access to your information from a different web service? If so, which app(s)?

OAuth Flow


User
Our Application
Web Service - Authorization Server
Web Service - User Info
Token Request
Login Prompt
Login Credentials and Consent
Response with Token
Account Information Request (with token)
Account Information

BUILDING OUR APP

1. Configure our systems for development and testing, and review 500px developer configuration
2. Create our initial view
3. Get user's location
4. Send request to 500px with user's location info
5. Parse API response and add returned images to view

ENDPOINT

- An address or connection point to a web service
- A single service can have multiple endpoints
- For the service we're using, 500px.com, see list of endpoints at https://github.com/500px/api-documentation#endpoints

LEARNING OBJECTIVES - REVIEW

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NEXT CLASS PREVIEW

In-class lab: Feedr

- Familiarize yourself with the API documentation for news sources.
- Learn how to parse through API documentation.
- Understand how to successfully retrieve information from APIs.
- Fork and clone your starter code.
- Strategize ways to hide the loader and replace the content of the `#main` container with that of the API.
- Look up other news sources that might be useful for the project.

Exit Tickets!

Q&A