FUN WITH CALLBACKS

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QUCK NOTE ABOUT WRONG ANSWERS AND STUPID QUESTIONS

AGENDA

Different Types of Functions
Functions as First-class Citizens
Higher-Order Functions
Callbacks
Single Responsibility Principle
Arrow Functions
Live Coding

QUICK REVIEW OF DIFFERENT TYPES OF FUNCTIONS

- What is a function?
- Difference between parameter & argument?

TYPES OF FUNCTION

```
function printUserName(){}
```

```
const printUserName = function(){}
```

```
function(){}
```

```
const printUserName = () => {}
```

EXPLORE ON YOUR OWN

What is Function Hoisting? Function Calling/Invoking Vs. Function Passing
Passing By Reference

REPEAT AFTER ME

FUNCTIONS IN JAVASCRIPT ARE FIRST CLASS CITIZENS!

A function can be treated like any other value in JS
It can be assigned to a variable
It can be passed as an argument
It can returned by another function

HIGHER ORDER FUNCTIONS

What is Higher Order Function?

A function that accepts another function as an input parameter or return another function

```
.map
.reduce
.filter
.forEach
.some
.every
```

Why do we need them?

SINGLE RESPONSBILITY PRINCIPLE

A function should do only one thing at a time!

WHAT ARE CALLBACKS?

```javascript
function sayHi(){
    console.log('Hello there!');
}

function greet( sayHi ){   // sayHi is a callback function
  sayHi();
}
```

WHAT ARE ARROW FUNCTIONS?

FOREACH DEMO

SCOPE CHAIN QUICK DEMO

EXERCISE (LIVE-CODE)

Let's code together `forEachInReverse` that does reverse iteration on an array and takes a cb much like forEach would.