

Lambda Functions

Objectives

- What is a Lambda
- Defining a Lambda in ECMA6

What are Lambdas?

- A lambda is a syntax allowing for the definition of a method with no name ie. anonymous method
- They make many tasks syntactically easier
 - Looping code
 - Filtering code
 - Event handling
 - Asynchronous response handling

What is a Lambda

- A Lambda is essentially an anonymous function written in a specific way
- Consider iterating over a simple array and having a function to process each item

```
function processItem (nextItem) {  
  console.log(nextItem);  
}  
arrayOfItems = ["item1", "item2", "item3"];  
arrayOfItems.forEach(processItem);
```

- This could be simplified with a lambda function

```
arrayOfItems.forEach((item) => console.log(item));
```

Lambda Syntax

- The Lambda syntax is as follows

```
(any parameters) => method body;
```

- So, in the example, forEach function takes in a function to process each item

```
(item) => console.log(item);
```

- The method body will require {} if there is more than one line of code

```
() => {  
  console.log("curlies required as ");  
  console.log("more than one line");  
};
```

Lambda Parameters and Return Values

- For one statement Lambdas the return is implied so the result of a Lambda is implicitly returned without the keyword
- If you have more than one statement then a return statement is required

Summary

- What is a Lambda
- Lambdas in JavaScript