



# FEWD

Week 8 • Class 17

## Async & AJAX

# Review

## Ternary Operator

```
var hour = new Date().getHours(); /* returns hr as 0-23 */  
  
var dayOrNight = hour < 17 ? 'day' : 'evening';  
  
console.log(dayOrNight);
```

# Review

## Get the Object Values

```
var germanCars = [  
  { make: 'Mercedes Benz', model: 'GL450', year: 2007 },  
  { make: 'Porsche', model: 'Panamera', year: 2010 },  
  { make: 'BMW', model: 'X5', year: 2018 },  
  { make: 'Audi', model: 'A6', year: 2016 }  
]  
for(car of germanCars) {  
  template = `YR: /* year */ MK: /* make */ MODEL: /* model */`;   
  console.log(template)  
}
```

# Solution

## Get the Object Values

```
var germanCars = [  
  { make: 'Mercedes Benz', model: 'GL450', year: 2007 },  
  { make: 'Porsche', model: 'Panamera', year: 2010 },  
  { make: 'BMW', model: 'X5', year: 2018 },  
  { make: 'Audi', model: 'A6', year: 2016 }  
]  
for(car of germanCars) {  
  template = `YR: ${car.year} MK: ${car.make} MODEL: ${car.model}`;  
  console.log(template);  
}
```

# Review

Display a collection of images in the div.

```
<div id="image-grid"></div>
```

```
var images = [  
  {url: 'mountains.png', title: 'Mountain adventures'},  
  {url: 'ocean.png', title: 'Beach adventures'},  
  {url: 'forest.jpg', title: 'Camping adventures'}  
]  
for(/* what goes here */) {  
  $(/* what goes here */)  
    .append(`<img src=/* what goes here */ alt=/* and here */>`);  
}
```

# Solution

Display a collection of images in the div.

```
<div id="image-grid"></div>
```

```
var images = [  
  {url: 'mountains.png', title: 'Mountain adventures'},  
  {url: 'ocean.png', title: 'Beach adventures'},  
  {url: 'forest.jpg', title: 'Camping adventures'}  
]  
for(img of imgData) {  
  $('#image-grid').append(``);  
}
```

# Review

## Create a Shopping List

```
<div id="shopping-list">  
  <ol></ol>  
</div>
```

```
var list = ['Wine', 'Dog Treats', 'Shampoo', 'Conditioner'];  
  
for(/* what goes here */) {  
  var template =  
    `<li>/* what goes here */ <button>Edit</button></li>`;   
  $('#shopping-list>ol')./* what goes here */(template);  
}
```

# Solution

## Create a Shopping List

```
<div id="shopping-list">  
  <ol></ol>  
</div>
```

```
var list = ['Wine', 'Dog Treats', 'Shampoo', 'Conditioner'];  
  
for(item of list) {  
  var template =  
    `<li>${item} <button>Edit</button></li>`;   
  $('#shopping-list>ol').append(template);  
}
```



# Review

Display the greeting when the button is clicked

```
<input name="name" id="name" value="" placeholder="Enter your name">
<button>Submit</button>
<p id="greeting"></p>
```

```
$( 'button' ).click(function(){
    var inputValue = $( '#name' ).val();
    var eveningMsg = 'Good evening ' + inputValue;
    var dayMsg = 'Good day ' + inputValue;
    var hour = new Date().getHours();

    $( '#greeting' ).text( /* try ternary? 🧐 */ );
});
```

# Solution

Display the greeting when the button is clicked

```
<input name="name" id="name" value="" placeholder="Enter your name">  
<button>Submit</button>  
<p id="greeting"></p>
```

```
$( 'button' ).click(function(){  
    var inputValue = $( '#name' ).val();  
    var eveningMsg = 'Good evening ' + inputValue;  
    var dayMsg = 'Good day ' + inputValue;  
    var hour = new Date().getHours();  
  
    $( '#greeting' ).text(hour > 17 ? eveningMsg : dayMsg);  
});
```

# Review

Toggle a class when the list item is clicked

```
.done { text-decoration: line-through; }
```

```
<li>Wine</li>
```

```
$(/* what goes here */).click(function(){  
    $(this)./* what goes here */  
});
```

# Solution

Toggle a class when the list item is clicked

```
.done { text-decoration: line-through; }
```

```
<li>Wine</li>
```

```
$( 'li' ).click(function(){  
    $(this).toggleClass( 'done' );    /* ❤️❤️ $(this) ❤️❤️ */  
});
```

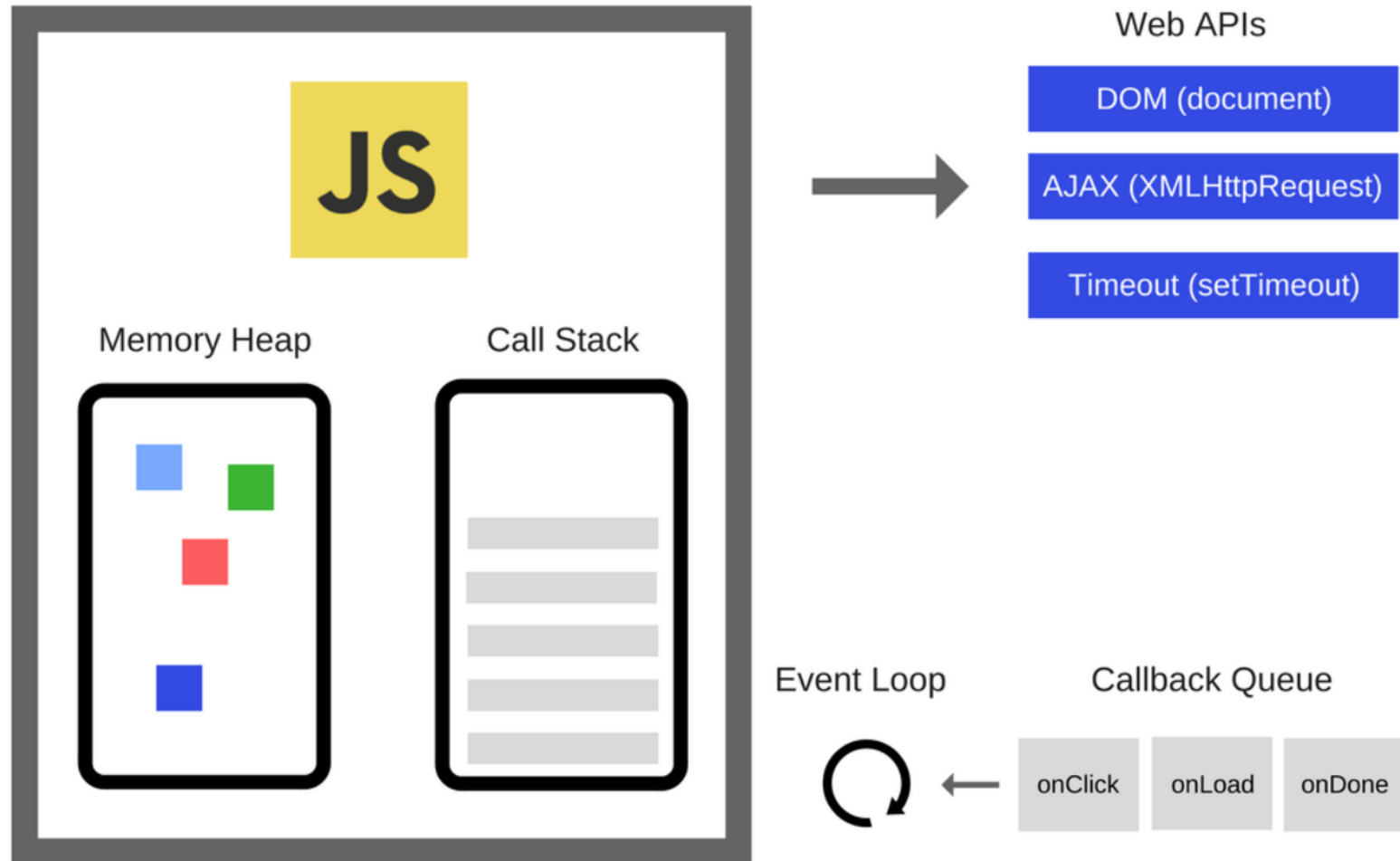
# What We'll Cover

- What is asynchronous Javascript?
- Getting Data from APIs
- Final Projects!!!

# What is Async JS?

Javascript normally executes immediately when called. This is a problem if your script is dependent upon data coming from a server. For this, we have asynchronous methods in Javascript!

# How JS is Processed



# Common Asynchronous Methods

- **setInterval:** Runs a callback repeatedly on a specified interval.  
setTimeout: Runs a callback after a specific amount of time.
- **requestAnimationFrame:** Waits for the next repaint before adding the current animation.
- ~~**XMLHttpRequest:** Retrieves data from a server and runs a callback when it is received.~~



# Enter AJAX

AJAX stands for Asynchronous JavaScript And XML. Today, most endpoints return JSON instead of XML, but we still refer to these types of operations as ajax.

# jQuery \$.ajax()

```
$.ajax({  
  url: 'https://someapi.url.com/?with_some_params=true',  
  dataType: 'json', /* usually */  
  success: function(data) {  
    /* Yay! We have data. Now, do something with it. */  
  },  
  error: function(error, textStatus, errorThrown) {  
    /* Booo... We got an error. */  
  }  
});
```

**Go Build Awesome Things!**