

# Call REST API Methods from an HTML Page

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# Module Goals



## Use XMLHttpRequest object

- Call REST API to get data

## Add CORS package

- Allow certain websites to call APIs

## Create a website

- Add request package
- Display data in website

# XMLHttpRequest

**Sends/receives data to/from  
server**

**Can retrieve any type of data  
(XML, JSON, HTML, etc.)**



# Example XMLHttpRequest Call

Setup callback function  
when request state  
changes

Create new  
request object

```
let req = new XMLHttpRequest();
```

```
req.onreadystatechange = function () {  
  if (this.readyState === XMLHttpRequest.DONE && this.status === 200) {  
    let response = JSON.parse(this.response);
```

Check readyState  
property  
result

Get data from  
response prop

Read properties  
from JSON  
envelope

```
    console.log(response);  
    console.log(response.data);  
    console.log(response.data.name);  
  }  
};
```

```
req.open("GET", "https://localhost:5001/api");  
req.send();
```

Open request  
object

Send request to  
URL



# Demo



Create HTML page to call REST API



# CORS

**Cross-origin resource sharing**

**Allows calls from other domains**

**Can accept all requests**

**Can restrict to certain domains**



# Demo



## Add CORS



# Express Generator

**Application generation tool**

**Creates basic website  
skeleton**

**Choose templating/view  
engine:  
ejs, handlebars, pug, hogan**

**No view engine**





# Demo



**Install express generator (if you haven't)**

- `npm install express-generator -g`

**Create new website using generator**



# Request Package

**Add the 'request' package**

**Allows you to call REST API  
from website**



# Demo



Add request package

Create API helper module

Get data and display on HTML page



# Module Summary



Call XMLHttpRequest object to get data

Express generator creates a default website

Add request package to use XMLHttpRequest from website

Use CORS to grant/restrict access to API



# Course Summary



**Node.js and Express are great tools**

**Can use JavaScript...**

- Building REST APIs on server
- Calling REST APIs on client

**Use a JSON envelope around data  
returned from REST APIs**

**Be sure to handle exceptions**

**Log exceptions**



I hope you enjoyed  
this course!



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