

CC Lab

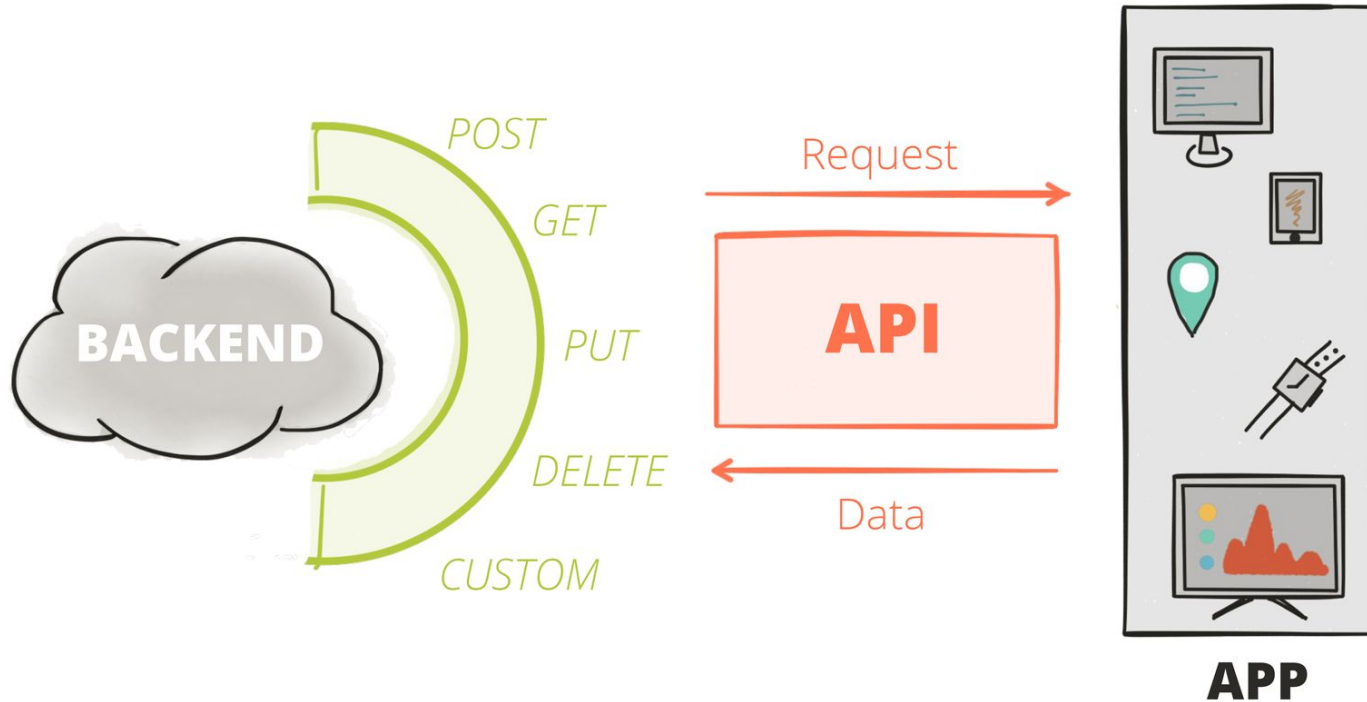
Week 3: APIs

Application Program Interface

A set of routines, protocols, tools for building software application

In practice, **most often an API is a library that includes specifications for routines, data structures, object classes, and variables.**

On the web, an API is a way for your code to get information from a third-party through hypertext transfer protocol (HTTP) requests.



APIs return information in

JSON | Javascript Object Notation

or

XML | Extensible Markup Language

format

JSON

```
{ "employees": [  
  
  { "firstName": "John", "lastName": "Doe" },  
  { "firstName": "Anna", "lastName": "Smith" },  
  { "firstName": "Peter", "lastName": "Jones" }  
  
] }
```

XML

```
<employees>  
  
  <employee>  
    <firstName>John</firstName>  
    <lastName>Doe</lastName>  
  </employee>  
  
  <employee>  
    <firstName>Anna</firstName>  
    <lastName>Smith</lastName>  
  </employee>  
  
  <employee>  
    <firstName>Peter</firstName>  
    <lastName>Jones</lastName>  
  </employee>  
  
</employees>
```

Manipulating JSON/XML files

You can use AJAX (Asynchronous JavaScript and XML) to parse through information (as JSON objects).

AJAX allows you to update a page without refreshing the page.

jQuery AJAX function

```
$.ajax({  
  url: 'http://api.joind.in/v2.1/talks/10889',  
  type: 'GET',  
  data: {  
    format: 'json'  
  },  
  error: function() {  
    $('#info').html('<p>An error has occurred</p>');  
  },  
  dataType: 'jsonp',  
  success: function(data) {  
    var title = $('<h1>').text(data.talks[0].talk_title);  
    var description = $('<p>').text(data.talks[0].talk_description);  
    $('#info')  
      .append(title)  
      .append(description);  
  }  
});
```

Let's control the weather!



www.wunderground.com/weather/api/

Homework

Use any API to create something awesome.

