

Yifeng Huang

ART101 - Programming for the Arts

2024 Spring Quarter

Lab 16: JSON and APIs

6/6/2024

Links to the lab assignment result

Home Page: <https://yhuan359.github.io/art101>

This Lab page: <https://yhuan359.github.io/art101/lab16/index.html>

Summary of Efforts

It was difficult to learn how to do this assignment in a similar manner to the one I had previously done before, thus this was not completed.

Screenshots:

Task 1: Create an index.html file for your lab

```
index.html JS lab.js
lab16 > index.html > html
1 <html>
2 <head>
3   <link rel="stylesheet" type="text/css" href="../css/site.css">
4   <link rel="stylesheet" type="text/css" href="css/lab.css">
5   <script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
6   <script src="js/lab.js" defer></script>
7 </head>
8
9 <body>
10   <main id="content"></main>
11   <section>
12     <h1> Lab 16: JSON and APIs </h1>
13     <div id="challenge" class="minor-section">
14       <h2> Challenge </h2>
15       <p2> Experiment with processing JSON from an API. </p2><br/>
16     </div>
17
18     <div id="problems" class="minor-section">
19       <h2> Problems </h2>
20       <p> I struggled to find out the API_key from the API docs. The website says: </p><br/>
21       <p> To obtain API access, contact the X.509-authenticated server and request an ECDH-RSA TLS key...</p><br/>
22     </div>
23
24     <div id="results" class="minor-section">
25       <h2> Results </h2>
26       <p> The result does not appear due to the missing API_key.</p><br/>
27     </div>
28   </section>
29
30   <h1> API Experiment </h1>
31   <button id="my-button">GO</button>
32   <div id="output" class="minor-section">
33   </div>
34
35 </body>
36 </html>
```

Task 2: Read the Docs



If you want to fetch comics and metadata automatically, you can use the JSON interface. The URLs look like this:

<https://xkcd.com/info.0.json> (current comic)

or:

<https://xkcd.com/614/info.0.json> (comic #614)

Those files contain, in a plaintext and easily-parsed format: comic titles, URLs, post dates, transcripts (when available), and other metadata.

Task 3: Test your API endpoint

```
pretty-print
{
  "month": "6",
  "num": 2942,
  "link": "",
  "year": "2024",
  "news": "",
  "safe_title": "Fluid Speech",
  "transcript": "",
  "alt": "Thank you to linguist Gretchen McCulloch for teaching me about phonetic assimilation, and for teaching me that if you stand around in public reading texts from a linguist and murmuring example phrases to yourself, people will eventually ask if you're okay.",
  "img": "https://imgs.xkcd.com/comics/fluid_speech.png",
  "title": "Fluid Speech",
  "day": "5"
}
```

Task 4: Create a javascript file

```
lab16 > js labjs > @ ajaxObj
1 // Author: Yifeng Huang
2 // Date: 6/7/24
3 // Created while learning from example in class
4
5
6 const URL = "https://xkcd.com/info.0.json";
7
8 // create a button listener
9 $("#my-button").click(function(){
10   console.log("Click");
11   // call ajax
12   $.ajax(ajaxObj);
13 })
14
15 // setup ajax object
16 const ajaxObj = {
17   url: URL,
18   data: {
19     id: 123,
20     api_key: "blahblahblah",
21   },
22   type: "GET",
23   dataType: "json",
24   success: ajaxSuccess,
25   error: ajaxError
26 }
27
28 // create ajax success callback (named)
29 function ajaxSuccess(data) {
30   console.log("Data:", data);
31   // parse json
32   const title = data.title;
33   const alt = data.alt;
34   const imageURL = data.img;
35
36   // put stuff in output div
37   $("#output").html(title);
38   $("#output").append("<img src='" + imageURL + "' />");
39   $("#output").append("<p> " + alt);
40 }
41
42 // create ajax error callback
43 function ajaxError(request,error){
44   console.log("Oops:", error);
45 }
46
47
```

Task 5: Test, debug and run

Lab 16: JSON and APIs

Challenge

Experiment with processing JSON from an API.

Problems

I struggled to find out the API_key from the API docs. The website says:

To obtain API access, contact the X.509-authenticated server and request an ECDH-RSA TLS key...

Results

The result does not appear due to the missing of API_key.

API Experiment

GO

Self-Evaluation Rubric

Self-Evaluation Rubric						
Did you complete the assignment, and did you complete it on time?	Submitted on time	Up to 1 day late	Up to 2 days late	Up to 3 days late	Up to 4 days late	Do you need to clarify?
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did you collaborate with a partner?	A lot of effort		Some effort		Not this time	Do you need to clarify?
	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Did you put in earnest effort and provide an articulate summary of your experience?	Excellent	Pretty good	About average	Could be improved	Not this time	What supports this? I was unable to find the api key
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was the assignment complete, with minimal errors, correct output, and good style?	Excellent	Pretty good	About average	Could be improved	Not this time	What supports this? I was unable to find the api key
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
How much EXTRA effort did you put into the assignment?	A lot of extra effort		Some extra effort		Not this time	What supports this?
	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Summary of your evaluation/efforts: I struggled to find the API key to complete this assignment						