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## 233JS Final Project

## API Project Documentation

## Coqui Speech Server API

I made an account at [TechIaith.Org](http://TechIaith.Org) On their portal, you can apply for a key to each of the web services they run. The form asked for a description of my project and the link to the website it will be used on. I published [a stub html page to citstudent](http://citstudent.lanecc.net/~williamsm312/cs233js/project/), so that I would know the URL for this field.

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter name | English translation of parameter name | Description | Notes |
| Testun | Text | the text you want to hear as a wav file; this needs to be encoded so that whitespace characters are replaced by ‘%20’ | I think the way users will interact with this is entering simple vocabulary words, not whole sentences |
| Siaradwr | Speaker | This sets a particular speaker’s voice. The API uses a default voice if you don’t enter a parameter value here. | The default is a woman speaking in a southern welsh accent. The documentation for other text to speech api’s from this organization mention plans to expand the number of speakers available. I will use the default |
|  |  |  |  |

Sample call:

Text to speak = “Dw I eisiau glywed rhywbeth”

English translation: I want to hear something

[https://tts.techiaith.cymru/coqui-tts/api/v1?testun=Dw%20i%20eisau%20glywed%20rhywbeth&siaradwr=&api\_key=6ec83e1b-9879-4bc8-b28a-134fa218a5ed](https://tts.techiaith.cymru/coqui-tts/api/v1?testun=Dw%252520i%252520eisau%252520glywed%252520rhywbeth&siaradwr=&api_key=6ec83e1b-9879-4bc8-b28a-134fa218a5ed)

This returns a .wav file.

### Testing Notes:

I can make a call by building the string and entering into the browser. When I make the request, my browser downloads a .wav

There are a lot of options for getting the audio on the page. I haven’t successfully used fetch yet, though. The simplest way is to build the api call in a string and then use a template literal in the audio tag’s innerHTML like this:

function addSource(){

let audioElement=document.querySelector("audio");

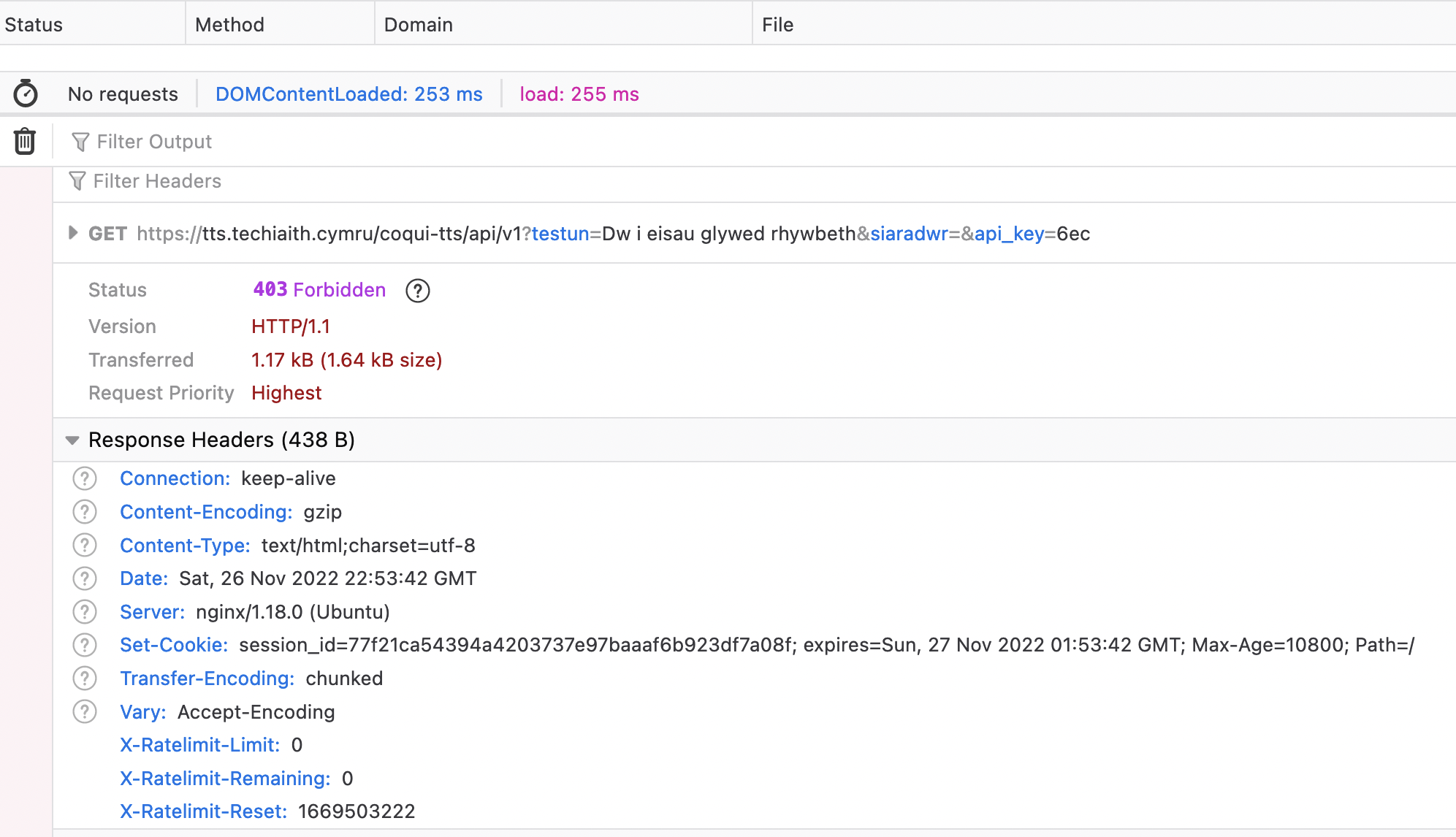
const call='https://tts.techiaith.cymru/coqui-tts/api/v1?testun=Dw%20i%20canu&siaradwr=&api\_key=6ec83e1b-9879-4bc8-b28a-134fa218a5ed';

const string=`<source src=${call} type="audio/wav"> Your browser does not support the audio element.`;

audioElement.innerHTML = string;

}

I tested this in a script element on the hmtl page, so it isn’t encapsulated in an ES6 class yet. However, there might be a more elegant way to do this using fetch and promises.

Invalid Request Response:

## TechIaith’s Vocab API

I had planned on using a vocab API from techiaith. It’s a widget, not a web service. Unfortunatelu, it doesn’t meet my needs. With more time, I could explore other translation web services. Instead I decided to use an API to get icons for my site.

## TheNounProject

After first looking at Pexels for photos, I looked into the NounProject’s API. The NounProject is a repository of icons. Its licensing can be hard to parse. Most icons seem to be Creative Commons with Attribution Required. That means I need to include a link to the creator when I use them in my site. There is also a subscription that allows one to use icons without attribution. The API is free to use for the first 5000 requests.

The documentation is at : <https://api.thenounproject.com/>

There is also an Explore that looks like the swagger page we created in 234N to test RESTfulAPI endpoints at <https://api.thenounproject.com/explorer>

I have registered for an API key and a secret code. It appears I may need to add the node js oauth package to use this API. There is sample code for javascript available at <https://gist.github.com/hirobert/3bca9fd56b9b4418b1ca>

### API Endpoints

All calls are GET requests that start with <http://api.thenounproject.com>

There is an endpoint that returns list from a specific collection of icons. This may be useful when designing the site. I can pull a collection of animal icons, or food icons that will be used in the concentration game. The call returns a json object.

GET /collection/(*int: id*)/icons[¶](https://api.thenounproject.com/documentation.html%23get--collection-(int-id)-icons)

Returns a list of icons associated with a collection

Parameters

* **id** (*int*) – collection id

Query Parameters

* **limit** (*int*) – maximum number of results
* **offset** (*int*) – number of results to displace or skip over
* **page** (*int*) – number of results of limit length to displace or skip over

This returns a json object with two properties:

generated\_at: this is the time the request was made.

icons: [] this is an array of icon objects. The properties I will need to access are “attribution” and either “icon\_url” or “preview\_url”.

Request:

GET http://api.thenounproject.com/collection/55/icons?limit=1

Sample response:

{

"generated\_at": "Thu, 05 Mar 2015 20:21:57 GMT",

"icons": [

{

"attribution": "fun by XOXO from The Noun Project",

"attribution\_preview\_url": "https://static.thenounproject.com/attribution/23936-600.png",

"date\_uploaded": "2013-10-02",

"icon\_url": "https://static.thenounproject.com/svg/7c2f2d9b-068b-484a-9b40-5485d17b6d13.svg?Expires=1425590517&Signature=J7u7PjEV01SnXi3pd3AJCktqoMntim~V1fHQkrFnd~jpZD0kszRivNYabC-6BgQRbjphL9mth1wFngCYYoc5GJth5Ixs1JA4O0TYhyc7yLLO8k8sYkAogxFHpS4L8SrHXej1brnr8y-8NDZqj3IWq47OaPgQvwx6GfCbeAXGXmI\_&Key-Pair-Id=APKAI5ZVHAXN65CHVU2Q",

"id": "23936",

"is\_active": "1",

"license\_description": "public-domain",

"permalink": "/term/fun/23936",

"preview\_url": "https://static.thenounproject.com/png/23936-200.png",

"preview\_url\_42": "https://static.thenounproject.com/png/23936-42.png",

"preview\_url\_84": "https://static.thenounproject.com/png/23936-84.png",

"sponsor": {},

"sponsor\_campaign\_link": null,

"sponsor\_id": "",

"term": "fun",

"term\_id": 3127,

"term\_slug": "fun",

"uploader": {

"location": "US",

"name": "XOXO",

"permalink": "/xoxo",

"username": "xoxo"

},

"uploader\_id": "202222",

"year": 2013

}

]

}

When users add a new vocal card, the site will make a fetch request to either retrieve a single icon by term(keyword) or a list of icons by term.

Parameters for List

GET /icons/(*string: term*)[¶](https://api.thenounproject.com/documentation.html%23get--icons-(string-term))

Returns a list of icons

Parameters

* **term** (*string*) – icon term

Query Parameters

* **limit\_to\_public\_domain** (*int*) – limit results to public domain icons only
* **limit** (*int*) – maximum number of results
* **offset** (*int*) – number of results to displace or skip over
* **page** (*int*) – number of results of limit length to displace or skip over

Sample call:

GET http://api.thenounproject.com/icons/**fish**?**limit\_to\_public\_domain=1&limit=1**

Sample response for the list:

{

"generated\_at": "Thu, 05 Mar 2015 20:21:58 GMT",

"icons": [

{

"attribution": "Fish by Teresa S Garner from The Noun Project",

"attribution\_preview\_url": "https://static.thenounproject.com/attribution/24913-600.png",

"collections": [],

"date\_uploaded": "2013-10-20",

"icon\_url": "https://static.thenounproject.com/svg/3671fe0b-56db-498f-ba71-5c344379a126.svg?Expires=1425590518&Signature=K9dLQGWzwpkomOhio2Ob0QkuSKLlgHej8~~mLZxLLtNcs4hvsQauKlW96JR36uO7mZq~YKjLpQCJ-cDsEHdUnle9hp1PDAznugHyWLPxJXQq~QTmpaQQZn1IBPwXXpab~FD9nCwSn8uQnSpNwStN9qsqrPrCwOs2zOpHeGdzwhw\_&Key-Pair-Id=APKAI5ZVHAXN65CHVU2Q",

"id": "24913",

"is\_active": "1",

"license\_description": "public-domain",

"permalink": "/term/fish/24913",

"preview\_url": "https://static.thenounproject.com/png/24913-200.png",

"preview\_url\_42": "https://static.thenounproject.com/png/24913-42.png",

"preview\_url\_84": "https://static.thenounproject.com/png/24913-84.png",

"sponsor": {},

"sponsor\_campaign\_link": null,

"sponsor\_id": "",

"term": "Fish",

"term\_id": 246,

"term\_slug": "fish",

"uploader": {

"location": "US",

"name": "Teresa S Garner",

"permalink": "/sgarner",

"username": "sgarner"

},

"uploader\_id": "214620",

"year": 2013

}

]

}

## Invalid Call Response:

Using the API explorer I tried this request:

https://api.thenounproject.com/icons/cats?limit\_to\_public\_domain=1&limit=5

the response came back with a response code 403 Forbidden. The object i receive in response looks like this:

{

"Content-Length": "234",

"Content-Type": "text/html",

"Date": "Sat, 26 Nov 2022 22:49:26 GMT",

"Server": "gunicorn",

"X-Firefox-Spdy": "h2"

}