

Here is an outline for a mini-project on JavaScript that includes Fetch API, Promises, Async/Await, Memoization, and Callbacks using the OpenAI API.

Project Overview

Project Title: Quote Generator using OpenAI API

Project Overview: The project aims to generate five quotes on a user-specified topic using the OpenAI API. The web application will have an input field where the user can enter a topic and a button to generate quotes. The quotes will be displayed in a card-like structure on the page.

Technologies Used: HTML, CSS, JavaScript, OpenAI API

Project Tasks:

Task	Duration
Research and understand OpenAI API	1 hour
Set up the project directory	15 minutes
Create HTML skeleton	30 minutes
Style the HTML using CSS	30 minutes
Write the JavaScript code	1.5 hours
- Create an async function to make API calls using OpenAI API	
- Get user input and pass it as a parameter to the API call	
Implement memoization function	1 hour
- Parse and display the response using memoize to cache the API response	
Deploy the project to a hosting service such as Netlify or Heroku	1.5 hours

Total Duration: ~6 hours

here is a step-by-step process to complete the project:

1. Set up the project directory:
 - o Create a new project directory on your local machine.
 - o Inside the project directory, create an index.html file and a style.css file.
 - o Create a new JavaScript file named main.js to hold your JavaScript code.
 - o Your folder structure should look like below

```
Quote-Generator-Project/  
|__ index.html  
|__ main.js  
|__ style.css  
|__ images/  
    |__ background.jpg  
    |__ icon.png
```

2.

3. Create the HTML skeleton:
 - Inside the index.html file, create an input field for the user to enter a topic and a button to generate quotes.
 - Add an empty container element to hold the quotes.
4. Style the HTML using CSS:
 - Inside the style.css file, add styles to make the HTML look more visually appealing.
 - Ensure that the layout is responsive and works on different screen sizes.
5. Write the JavaScript code:
 - Inside the main.js file, write a function to make an API call to the OpenAI API using the user's input as a parameter.
 - Parse the response from the API and display the five quotes on the page.
 - **Use memoize to cache the API response** so that if the user requests the same topic again, the application can display the cached response without making a new API call.
 - Use **async/await to handle the API call asynchronously**.
 - Make sure the **application is responsive and works on different screen sizes**.
6. Deploy the project to a hosting service:
 - Deploy the project to a hosting service such as GitHub Pages or Netlify or Heroku so that others can use it.

Additional Hints:

- **Go to JS_Mini_Project folder to Pesto Github Rep and you will find main.js with hints**
- **hints_for_main.js**
- **Follow the hints for js**

Additional Notes:

- The project will use async/await to handle the API calls asynchronously.
- The response from the API will be in JSON format, and the JavaScript code will parse it to extract the quotes.
- The memoize function will cache the API response to avoid making unnecessary API calls when the user requests the same topic multiple times.
- The project should be designed with a responsive layout so that it can be viewed on different screen sizes.

Open AI Documentation and examples: <https://platform.openai.com/examples/default-text-to-command>