Adjustable Speed Slider

Introduction

The "Adjustable Speed Slider" is a web application that enables users to control the speed of a slider using a range input. The slider value is displayed dynamically, and the application sends the current slider value to a specified API endpoint using the fetch API.

HTML Structure

The HTML structure of the application remains straightforward, consisting of the following main elements:

1. DOCTYPE Declaration:

- `<!DOCTYPE html>` specifies the document type and version.

2. HTML Tag:

- `<html lang="en">` defines the root element of the HTML document with the language attribute set to English.

3. Head Section:

- Contains metadata and links to external resources such as stylesheets.
- Meta tags specify character set and viewport settings.
- Custom styles are defined in the style section.

4. Body Section:

- Contains the user interface elements.
- A range input (`<input type="range">`) for adjusting the slider speed.
- A paragraph (`<p>`) element to display the current slider value.

CSS Styling

The styles defined in the `<style>` section within the head provide a clean and centered display for the user interface elements. The body is configured as a flex container, allowing for easy alignment and spacing adjustments.

JavaScript Functionality

The `<script>` section contains JavaScript code responsible for the dynamic functionality of the application.

1. DOM Element References:

- `const speedRange` and `const sliderValueElement` are variables referencing the range input and paragraph elements, respectively.

2. Event Listener:

- An event listener is added to the `speedRange` input to detect changes in its value.
- When the input changes, the `updateSlider` function is called to display the current slider value, and the `executeLink` function is called to send the slider value to an API endpoint.

3. updateSlider Function:

- Updates the text content of the `sliderValueElement` to display the current slider value.

4. executeLink Function:

- Constructs an API URL using the current slider value.
- Utilizes the fetch API to make an asynchronous HTTP request to the API endpoint.
- Handles response and error scenarios, logging relevant information to the console.

API Integration

The application integrates with the ThingSpeak API (`https://api.thingspeak.com/update`) to update a specific field (Field 5) with the current slider value. The API key (`ELW2NF5Q83OGB39G`) is included in the URL for authentication.

Conclusion

This web application provides a simple and interactive way for users to adjust and visualize the speed of a slider. The code is well-structured, with clear comments explaining each section's purpose and functionality. The integration with the ThingSpeak API allows for real-time tracking of slider speed values.

Output: